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Training and Supporting Early Childhood Providers in Inclusive Settings

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Walden University
2024

Abstract

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MSEd, Wheelock College, 2008

BA, Middlebury College, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Early childhood providers care for infants and toddlers with developmental delays and special needs in their programs and classrooms. This study addressed the problem that there is insufficient professional development (PD) training for early childhood providers working with infants and toddlers with special needs in inclusive settings. The purpose of this basic qualitative study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need to support infants and toddlers with special needs in inclusive settings. Using the whole teacher approach as the conceptual framework, the research questions explored participants' PD experiences and PD needs. Data were collected via semistructured interviews of six participants who met the criteria of (a) being Early childhood providers, (b) having experience with children with special needs, and (c) participating in inclusive PD for this student population. Data analysis involved the use of a priori and open coding to identify codes, categories, and themes. The emergent six themes were (a) format of PD; (b) collaboration with families and colleagues; (c) influence of PD on beliefs and self-confidence; (d) ongoing, systemic content related to special needs; (e) supervision and systems of collegial collaboration; and (f) factors affecting adoption of new practices. The findings of this study may contribute to positive social change by informing education stakeholders of the PD and support needs for early childhood providers thereby strengthening knowledge and skills to enhance instruction and support for infants and toddlers with special needs and their families.

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Chapter 1: Introduction to the Study

Early childhood providers who work with infants and toddlers support and care for children in some of the most important years for child development (Luby et al., 2020). Families rely on these childcare settings for the care and education of their infants and toddlers. For infants and toddlers with special needs, many parents are looking for inclusive settings for their children, where children of all abilities are educated in the same environment (Weglarz-Ward & Santos, 2018). However, not all early childhood providers have had the training to support infants and toddlers with special needs. Dinnebeil et al. (2019) found that early childcare providers felt that they were unprepared to work with infants and toddlers with special needs, especially when related to managing challenging behaviors and creating developmentally appropriate activities. Researchers have also shown that early childhood providers feel they need more training to better support infants and toddlers with special needs in their classrooms (Daniel & Lemons, 2018; Weglarz-Ward et al., 2019).

In 2015, the United States Departments of Health and Human Services and Education released a joint policy statement specifically addressing early childhood education (ECE) settings and inclusion for infants and toddlers (U.S. Department of Health and Human Services & Department of Education, 2016). In this statement, both federal programs recognized the need for infants and toddlers with special needs to be included in both private and public high quality ECE settings. This statement distinguished the differences between high-quality settings and high-quality inclusive settings. The Departments of Health and Human Services and Education also noted that

infants and toddlers may be educated in a variety of settings and early childhood

providers need to understand high-quality inclusive practices. Since this statement was

released, researchers have continued to document that little has changed in terms of

inclusion for including infants and toddlers with special needs (Weglarz-Ward et al.,

2019).

Professional development (PD) training has shown to be effective in building the

confidence and competence of all educators who work with infants and toddlers with

special needs (Foundation for Child Development, 2020). Teacher quality, training and

preparedness has been consistently tied to quality inclusive early childhood settings and

positive outcomes for children (Love & Horn, 2021). PD trainings for early childhood

providers are key to their continuing education and can be a way to prepare them to better

support and engage infants and toddlers with special needs (Han et al., 2021; Oddone et

al., 2019). The challenge in the field of ECE is the lack of high-quality PD training

available specifically for early childhood providers to prepare them to work with infants

and toddlers with special needs (Strogilos et al., 2020). There is a gap in PD training

early childhood providers to best work with infants and toddlers with special needs

(Kwon et al., 2017).

Researchers have shown that when early childhood leaders understand the

perspectives of teachers regarding their own experiences with PD, administrators and

leaders can better create high-quality PD training that match the needs of the educators

(Makovec, 2018). It is critical for leaders in the field of early childhood and those

providing PD training to better understand how PD is currently perceived by early

childhood providers related to supporting infants and toddlers with special needs (Metscher, 2021). Educational leaders need to better understand the experiences of early childhood providers working with infants and toddlers with special needs in inclusive settings and their perceived needs before creating or implementing PD.

Background

There are many challenges associated with working with infants and toddlers with special needs, both for the families and for early childhood providers. For families, there are challenges with understanding the needs of their own children and accessing early intervention (EI), education, and therapeutic services (Luby et al., 2020; Sheppard & Moran, 2022). For early childhood providers, there are challenges with creating high-quality environments and learning opportunities for children of all abilities and for understanding how to differentiate instruction for infants and toddlers (Adams et al., 2021; Weglarz-Ward et al., 2019). In addition, there are challenges in the field of early childhood related to the education levels and training that early childhood providers receive in the field and how that impacts their confidence, competence, and ability to work with infants and toddlers with special needs (Manning et al., 2019).

Infants and Toddlers With Special Needs

Early childhood is remarkable for the rapid nature of development and the different milestones that children are achieving across all of their developmental domains (Ilyka et al., 2021). However, there are instances where development in infants and toddlers is delayed or atypical. Among children identified with special needs, there is also significant variability in diagnoses, conditions, severity, and implications for

development that all require different levels of support. In these cases, there may be either a diagnosis of a special need or the discovery of a developmental delay.

When a child continuously fails to meet developmental milestones at the expected time, they can be deemed as having developmental delays in one or more areas (Thomas, 2021). Developmental milestones are considered to be age-specific functional skills that children can accomplish at certain points in their growth, and providers and physicians use these milestones to track development across all domains (Zitelli et al., 2017). Every child will achieve milestones at slightly different times, but research has proven to be effective in determining the ranges in which these skills are delayed or atypical, and needing intervention or additional support (Thomas, 2021). In some cases, developmental delays have known causes and associations, like chromosomal or genetic disorders, such as Down Syndrome. In some other cases, infants and toddlers can experience premature or traumatic birth experiences that lead to delays. In other cases, there are unknown causes for why children are developing atypically or delayed (Zitelli et al., 2017).

The term "individual with special needs" is a clinical diagnostic and functional development term that is used to describe individuals with various medical, physical, intellectual, and developmental disabilities or delays (Henly & Adams, 2018). This definition includes children with emotional difficulties or diagnoses, physical or sensory impairments, learning and intellectual disabilities, and other challenges related to their development and functioning. In the United States, approximately 13 to 15% of children under the age of 6 all under one of these categories and may require services (Young & Crankshaw, 2021).

Research has demonstrated the importance of children of all ages with special needs to be educated in inclusive settings and that even infants and toddlers with special needs benefit from environments where they can learn alongside their peers (Ainscow, 2020; Love & Horn, 2021; Weglarz-Ward et al., 2019). Infants and toddlers with a variety of developmental delays, sensory impairments, and medical needs should be included in all private and public early childcare settings, based on statements from both the United States Departments of Health and Human Services and Education (U.S. Department of Health and Human Services & Department of Education, 2016).

EI

In the United States of America, the Individual with Disabilities Education Act (IDEA) was reauthorized in 2004 and legally mandates that children with special needs are provided supports and services in least restrictive and inclusive environments (Florian, 2019). There are four parts of the IDEA, with Part C focused on services for those infants and toddlers under age three (Dragoo, 2019). For children under the age of 3, these special education services are often delivered through home visits and other natural environments by certified EI practitioners. EI practitioners come from a variety of a fields, such as social work, occupational therapy, and special education, and make up multidisciplinary and transdisciplinary teams that can support families, infants, and toddlers with a wide range of needs (Sheppard & Moran, 2022).

The eligibility requirements to determine who would be able to receive support and services from EI programs varies state to state and is not set by the IDEA legislation (Guralnick & Bruder, 2019). Part C of the IDEA does outline three specific groups who

should benefit from EI services and who should be included in how states determine eligibility (Dragoo, 2019). The first group includes children who have been diagnosed with a condition that research has associated with developmental delays, such as autism spectrum disorder (ASD), Fragile X syndrome, or a documented vision or hearing impairment. The second group who benefits from EI services are infants and toddlers who are evaluated using standardized assessments and found to have a developmental delay in one or more areas. The final group are infants and toddlers who are at risk for developing developmental delays based on research-backed environmental or biological risk factors. In this area, biological risk factors are conditions like days spent in the hospital, low birth weight, or a failure to thrive diagnosis, and environmental risk factors are often seen as exposure to domestic or substance abuse, involvement with the foster care system, or poverty level of the family. These determinations for the criteria for both risks factors and developmental delay cut-off scores are made individually by states, based on their current levels of funding and programmatic structure (Guralnick & Bruder, 2019). However, research has documented that of the roughly 15% of infants and toddlers who have a developmental delay in one or more areas, only 1/5th of those children receive EI services before the age of 3 (Vitrikas et al., 2017).

The philosophy of EI is to provide support and services to families in naturalistic and inclusive environments, mostly in the form of home visiting, parent coaching, and through a consultation model. For families with infants and toddlers with developmental delays and special needs, services from EI can provide invaluable support through these home visits in the child's natural environments, which can also include childcare settings

(Lipkin et al., 2020). When these services are delivered in early childcare settings, research has shown that the role of the early childhood provider and the collaboration with EI is critical for the development of the child (Sheppard & Moran, 2022). Families with infants and toddlers with special needs who need childcare programs in order to work outside of the home need to rely on programs that are not specifically designed for children with disabilities or developmental delays. The collaboration between childcare programs and EI providers can be one method of support for early childhood providers who have infants and toddlers with special needs in their classrooms.

Challenges for Families Finding Quality Childcare

While the role of the IDEA legislation is to provide services and support for individuals with special needs, the American with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act prohibit discrimination of individuals at any age with special needs or disabilities (American with Disabilities Act, 1990), including children who require childcare. Specifically, the ADA says that childcare programs cannot exclude infants and toddlers with special needs unless their inclusion would require a "fundamental alteration of the program" and that programs must make "reasonable modifications" to include children with special needs (ADA, 1990). However, both of these terms are up to interpretation by individual programs, and the budgets of early childhood programs often inhibit them from being able to make these modifications for individual children (Novoa, 2020). Often, the needs of infants and toddlers with special needs are considered in a different educational space, one more associated with

rehabilitation or special education, and less included in inclusive settings with their peers (Wertlieb, 2018).

Research has shown that for families with infants and toddlers with special needs, there are still significant barriers to finding high-quality, inclusive programs that are prepared to support their children (Weglarz-Ward et al., 2019). Families raising infants and toddlers with special needs face larger constrictions with the balance between caregiving and employment responsibilities, resulting in a negative effect of maintain parental employment (Costanzo & Magnuson, 2019). An analysis of data from the 2018 National Survey of Children's Health (NSCH) found that parents of children with special needs were 3 times as likely to have job and childcare disruptions than other families, and that a significantly larger percentage of families with children with special needs experienced challenges securing childcare than other parents, 34% of families compared to 25% of families (Novoa, 2020). These same data showed that infants and toddlers with special needs were also more likely to receive care from multiple sources, with families needing to find childcare help from childcare programs, home health aides, or nurses, neighbors, extended family, and other sources (22% compared to 13%; Novoa, 2020).

Education and Experience of Early Childhood Providers

Working in the field of infant and toddler education in the United States continues to be one of the lowest paying occupations in the country (McLean et al., 2019). Based on statistics from 2019, the median hourly wage of educators in childcare settings was $11.65, far below even the hourly rates of preschool teachers in the same states ($14.67; McLean et al., 2021). Even amongst educators working exclusively with infants and

toddlers, these rates ranged from states like Georgia, where the median hourly rate was $9.37, compared to the District of Columbia, which was $15.36. Research from the Early Childhood Workforce Index (McLean et al., 2021) also revealed that despite the role of early childhood providers being seen as essential, the rates of pay for educators of infants and toddlers fall amongst poverty standards. Poverty rates for early childhood providers are documented as 7.7 times higher than educators working in K-8 programs (McLean et al., 2021). In addition to consideration of the income for professionals in this field, it is also important to consider that the majority of educators in infants and toddler settings are more likely to be women and women of color than their counterparts who teach children in preschool and elementary school settings (McLean et al., 2021). Finally, the field of early childhood is a privatized system, where individual programs and companies set their pay rates based on a market-based system that depends on the abilities of families to pay for care (McLean et al., 2019).

The United States does not have a system of early care and education where there is control over affordable, high-quality, and available programs for all families by any level of local, state, or federal government, allowing programs to set their own prices for families and pay for providers. There are limited services that are publicly subsidized or paid in full by the government, such as Early Head Start programs or childcare vouchers, and even more limited availability to most families. Families are expected to find and pay for childcare and early education settings from a variety of businesses that operate in home-based or center-based programs (McLean et al., 2021).

To correspond with the low hourly wages and yearly income of early childhood providers, the state requirements for licensing and certification amongst these educators is minimal in many states, especially when compared with the expected education and training for teachers of preschool and elementary school aged children (Sutcher et al., 2019). For example, the Infant-Toddler Child Development Associate (CDA) credential is sponsored by the Council for Professional Recognition and is a commonly used national credentialing program for educators in the field (Del Grosso et al., 2020). Providers who are looking to receive this level of credentialing need to have earned a high school diploma, GED, or be enrolled as a junior or senior as a high school or technical program in the field of early childhood, and to take a few workshops or classes in the field of child development. In comparison, in the state of Massachusetts, in order to be a licensed kindergarten teacher, one needs to complete a bachelor's or master's degree through a program approved by the Department of Elementary and Secondary Education (DESE). In addition, one needs to pass three different licensing exams in three different areas of study before applying for a teacher's license and apply for a renewal of your license every 5 years (Putman & Walsh, 2021). These differences in licensing, credentialing, and expected education levels point to how the country values its early childhood providers and misunderstands the complexity of working with infants and toddlers (Kuchy, 2021).

Manning et al. (2019) conducted a meta-analysis of the literature looking at the link between early childhood provider education and the quality of the early childhood environment and care being provided. The researchers found that higher qualifications of

the providers were positively correlated with to the quality of the early childhood

program. Research from other countries tells a similar story (Chepkwony et al., 2020;

Klibthong & Agbenyega, 2022) and points to the need to reconsider how educators train

and prepare early childhood providers to work in childcare and early childhood settings.

PD for Early Childhood Providers

Where there are differences in educational experience for early childcare

providers, the use of PD can help to train, educate, and support providers to understand

how to create high quality settings for all children (Brunsek et al., 2020). The PD of early

childcare providers is important for improving their learning, attitudes, understanding,

and practice, thus impacting the environment and outcomes for the infants and toddlers in

their care (Ackah-Jnr & Udah, 2021). PD also helps improve teaching skills and updates

their knowledge bases on working with infants and toddlers of all abilities (Ackah-Jnr,

2020). Finally, the Foundation for Child Development (2020) has found that high-quality

PD builds confidence, especially related to providers who work with infants and toddlers

with special needs.

PD, in the form of consultation, workshops, trainings, or in-services, have long

been an important experience for early childcare providers (Svendsen, 2020). When

considering the credentialing and licensing process for some early childcare providers,

there are required yearly hours that educators of PD must meet to retain their credentials.

For example, in Massachusetts, early childcare providers who work more than 20 hours

in small and large group settings need to complete and document a minimum of 20 hours

a PD activities a year (EEC Licensing Policy Statement: PD, n.d.). This mandated

number of PD hours varies based on the part-time or full-time status of providers, as well as the setting in which they work. For example, early childcare providers working less than 20 hours a week only need to complete 12 hours of mandated PD training, and those working in family or home-based childcare programs more than 20 hours a week only need to complete 10 hours of PD.

Even though most early childcare providers are participating in PD throughout the year, there is limited understanding in the field about the correlations between positive outcomes for infants and toddlers and the mode and frequency of delivery of these PD training (Brunsek et al., 2020; Burris, 2020; Jensen & Iannone, 2018). Brunsek et al. (2020), in their meta-analysis of the research, found positive correlation when the content of the PD matched directly with the child outcomes being measured (i.e., ability for the child to identify letters and provider attending Early Literacy workshops). This meta-analysis also identified more positive child outcomes when PD trainings were shorter because they were more likely to be completed and participants were more likely to achieve the intended outcomes for that shorter planned session (Brunsek et al., 2020). Some of the studies in these analyses were one-time trainings that lasted an hour, while other were lengthier and more involved coaching models that worked with one program for a year or more (Brunsek et al., 2020). Therefore, the outcomes and analysis are hard to translate in terms of overall effectiveness and recommendations. Another meta-analysis by Egert et al. (2018) found that positive child outcomes were significantly associated with quality ratings of the particular PD opportunity. It is important for leaders in early childhood to understand the components of a high-PD opportunity, and if that

quality is determined through the background of the trainer, the components of the content, the mode of delivery, or the perceptions of the attendees or providers (Metscher, 2021).

Staff development through trainings, in-services, workshops, and other PD training is an important factor to create inclusive environments (Ackah-Jnr, 2020). Research has demonstrated that infants and toddlers with variety of developmental delays, sensory impairments and medical needs should be educated in inclusive settings with same-age peers (Cate et al., 2017; Costanzo & Magnuson, 2019). However, studies have shown that many early childcare providers do not feel that they have the knowledge base or skill set to work with infants and toddlers with special needs in their classrooms (Dinnebeil et al., 2019). Leaders in early childhood understand the role of PD to support these early childcare providers and the role of staff development in creating high-quality inclusive environments (Ackah-Jnr, 2020). For example, many states that require PD for their licensed early childcare providers also require that one third of those trainings cover working with children with diverse learning needs (Standards for the Licensure or Approval of Family Child Care, 2021). However, there is limited research on the effectiveness of PD in the creation of high-quality inclusive settings and teachers who are confident to work with these infants and toddlers with special needs (Frantz et al., 2022; Jensen & Rasmussen, 2019).

Problem Statement

The problem that was addressed through this study is that there is insufficient PD training for early childhood providers working with infants and toddlers with special

needs in inclusive settings. Recent research has shown that early childhood providers working in inclusive settings do not typically have educational experiences or course work in special education (Dinnebeil et al., 2019). Credentialing and educational requirements for educators working with infants and toddlers continues to be significantly lower than educators working in elementary school settings, and there is no federal requirements or consistency in the United States (McLean et al., 2021). For those early childhood providers working in inclusive settings and those who have infants and toddlers with special needs in their programs, access to PD, in the form of trainings, workshops, consultation, and coaching, can serve as an effective way to build knowledge and skills (Han et al., 2021; Metscher, 2021). Catalano et al. (2022) also specifically looked at ways to measure self-efficacy and attitudes of early childhood providers to work with infants and toddlers with special needs, specifically ASD, and showed the importance of PD to build confidence and change the mindsets of the providers.

However, access to PD training specific to working with infants and toddlers with special needs is challenging for early childhood providers to find. Research into one state's PD offerings and statewide course catalog showed that for ECE, there are four workshops related to working with preschool aged children with special needs, only one workshop related to working with infants and toddlers, and no options for infants and toddlers with special needs (StrongStart PD Centers, 2023). Another statewide training program, funded by that state's board of education, found that in a 4-month window of courses being offered, out of seven options related to working with children with special needs, only one workshop focused on infants and toddlers with special needs (The

Center: Resources for Teaching and Learning, 2023). Working with infants and toddlers with special needs requires specialized education and training, both related to possible developmental or medical concerns, but also how the environment and curriculum needs to be adapted or modified for their unique learning needs (Love & Horn, 2021; Weglarz-Ward et al., 2019). For early childhood providers who are working with infants and toddlers in inclusive settings, support and continuing education has shown to be necessary but challenging to find (Kaczorowski & Kline, 2021).

Purpose of the Study

The purpose of this study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need, to support infants and toddlers with special needs in inclusive settings. Several researchers have examined the confidence and attitudes of early childhood providers in relation to working with infants and toddlers with special needs (Gardner-Neblett et al., 2021; Hooper et al., 2022), and others who have examined the effectiveness of various PD modalities and programs (Borg, 2018; Dunst et al., 2019; Han et al., 2021). There is still insufficient understanding of the PD that early childhood providers perceive that they need to work in inclusive settings with infants and toddlers with special needs based on their experiences, confidence, and previous education. The goal of this study was to ascertain the perceptions and experiences of teachers regarding PD in order to use that knowledge to provide effective PD needed to work with infants and toddlers with special needs. An improved understanding of their perceptions and experiences could improve

the training and coaching for early childhood providers and also increase the availability

of inclusive settings for infants and toddlers with special needs.

Research Questions

Research question (RQ)1: What training do early childhood providers report they

have had to support infants and toddlers with special needs in inclusive classroom

settings?

RQ2: What training do early childhood providers perceive they need to

support infants and toddlers with special needs in inclusive classroom settings?

Conceptual Framework

This basic qualitative study was guided by the whole teacher approach, a

conceptual framework developed to recognize and promote all aspects of a teacher's

development (see Chen & McCray, 2012). The whole teacher approach looks at how

educators comprehensively support teacher training and includes three different variables

of their PD. These variables are attitudes, practices, and knowledge and skills as they

relate to their teaching (Chen & McCray, 2012). This approach promotes PD programs

that prepare teachers and providers to be more versatile and adaptable educators (Chen &

Chang, 2006). This conceptual framework addresses the different layers of supporting

early childhood providers, not just knowledge-building, but also how PD can address

attitudes and the connection of knowledge to practice. Some early childhood providers

struggle with self-efficacy working with infants and toddlers with special needs and

attitudes about inclusion (Park et al., 2018). Other early childhood providers found that

improving their knowledge base and learning specific teaching strategies and skills to be

the most effective PD training (Chen & McCray, 2012). For other providers, learning how to manage an inclusive classroom environment and put into practice their understanding about the needs of infant and toddlers with special needs was the most critical part of their development (Pacini-Ketchabaw et al., 2022). The whole teacher approach framework prioritizes all three of these variables in developing PD.

In addition to the focus on attitudes, knowledge and skills, and classroom practices, the whole teacher approach focused on PD that is multidimensional, integrated, domain-specific, and from a developmental perspective (Chen & McCray, 2012). For example, a multidimensional program would offer various ways for the teacher to learn the content, would accommodate different teaching styles, and would target teacher attitudes. Also, an integrated PD program would ensure that teacher attitudes, knowledge, and practices all influence each other and are addressed simultaneously. Another aspect of the whole teacher approach is that the training is domain specific. This aspect focuses on the content area being developed and the expertise and skills specific to that domain. The final distinction of this framework is that PD objectives are consistent with different expertise levels and experience for teachers in different domains.

This framework is based on the whole student/child approach of teaching that views child development as holistic and interconnected and also considers the attitudes and beliefs of students instead of just external practices in the classroom (Darling-Hammond & Cook-Harvey, 2018). Another way to view the whole teacher approach is ensuring that PD training activates the "heart, head, and habits" of educators. The heart of

the educator would be the beliefs and attitudes, the head would be their knowledge and skills, and habits refer to their classroom practices.

For this study, the conceptual lens of the whole teacher approach guided the creation of the interview questions in the semistructured interviews with participants. The whole teacher approach also guided the deductive coding process and the codes to be identified in the data analysis portion of the research.

Nature of the Study

The nature of this study was to explore the experiences and perspectives of early childhood providers related to PD for working with infants and toddlers with special needs. A basic qualitative study was best to meet the needs of the research problem and could allow the opportunity to develop an in-depth understanding of the experiences of these providers and capture the perspectives of the participants (see Merriam & Tisdell, 2015). In addition, research has shown that a qualitative research design is the best method for understanding the experiences and perspectives of early childhood educators working in inclusive classroom settings with infants and toddlers (Hockey & Forsey, 2020). This research recruited participants for semistructured individual interviews that were audio recorded and transcribed. Participants were recruited through social media and other online platforms in order to conduct purposeful sampling in the field. A self-designed interview protocol was designed based on the conceptual framework of the whole teacher approach and other qualitative studies examining PD experiences for early childhood providers.

Definitions

Key terms associated with the problem are defined as follows:

Developmental delay: When a child's progression through predictable developmental phases slows or stops, and children demonstrate a slower-than-normal acquisition of motor, social, cognition, or language skills. This can be further diagnosed through formal evaluations from a physician or EI program, or suspected based on screening instruments of developmental milestones (Zitelli et al., 2017).

Early childhood provider: An educator or paraeducator in a group or center-based early childhood setting that educates children under the age of 3. This can include lead teachers and assistant teachers in either infant-based classrooms, toddler-based classrooms, or mixed-age classrooms (Foundation for Child Development, 2020).

Inclusive setting: Students with disabilities are taught alongside their nondisabled peers in general education settings so that their learning is aligned with grade-level expectations and they receive services to address their learning and behavioral needs (Zagona et al., 2017).

Infants or toddler with special needs: A child under the age of 3 who has either been formally diagnosed with a disability in one or more of the 13 disability categories as indicated in the IDEA (Dragoo, 2019), and where that diagnosis adversely affects the child's development and learning.

Professional development (PD):– Facilitated and learning and teaching experiences that are designed to support the acquisition of new skills for educators working in the field. This can be in the form of professional coaching, workshops,

consultation, classes, trainings, or conferences and can be internally facilitated by the early childhood setting or organized by an outside training provider (Oddone et al., 2019).

Assumptions

One major assumption of this qualitative research study was that participants would respond to all interview questions honestly and accurately. To help ensure honesty from the participants, all interviews were stored with pseudonyms for each participant, but this assumption was made as a basis for validity. Another assumption was that the method of semistructured interviews would yield rich data to the participants' answers to the questions in relation to their experiences and perspectives. There was also the assumption that there would be no technical problems regarding the technology to record and transcribe the interviews.

Scope and Delimitations

This basic qualitative study focused on early childhood providers who have worked in inclusive classrooms with infants and toddlers with special needs. The purpose of the study was to understand the experiences and perspectives of these providers in relation to PD. Participants needed to have not only recent experiences working with infants and toddlers with special needs, but also recent experience participating in PD related to working with infants and toddlers with special needs. Due to the limited recruitment for participants, the findings may not be transferable to early childhood providers who work in other settings or with other experiences working with infants and toddlers.

Limitations

Limitations in a research study identify weaknesses in the design or methodology (Burkholder et al, 2016). Some limitations of this basic qualitative research study may be researcher bias and self-selection of the participants. In my role in higher education, I provide PD and trainings in the field for early childhood providers. My personal bias about the importance of PD, for inclusive classroom settings for infants and toddlers, and the knowledge and skills that would be important for early childhood providers may have tainted my interview protocol and view of participant responses. To limit researcher bias, I kept a reflective journal when conducting the one-on-one interviews and used audio recording and transcription services. The final data were also reviewed by an expert reviewer to check for research bias. Secondly, because the participants were recruited through social media and online platforms, participants needed to self-select and volunteer to be interviewed. This may have led to the inclusion of participants that may not represent a diverse group of experiences and perspectives, and perhaps just those individuals with very negative or very positive experiences with PD.

Significance

This study was unique because it considered the experiences and perspectives of early childhood providers, which is a group of educators that has historically been paid a lower hourly rates and require fewer qualifications than teachers of older children (see McLean et al., 2019). In other qualitative studies, researchers have looked at the experiences of this group of educators in different ways, including their education, qualifications, and job satisfaction (Kuchy, 2021). However, this research study was

focused on PD and the ways that administrators and trainers provide continuing education and support to early childhood providers in the field. With an increase in research studies focused on both the outcomes of infants and toddlers in these educational settings and the experiences of the providers, it can lead to an increase of understanding in the field of the importance of supporting early childhood providers. This support can come in the form of education and training, but, more importantly, with more research focused on early childhood providers comes more opportunity to advocate for further professionalization in the field of early childhood. Studies can give more data to stakeholders to work with larger governmental bodies to find new systems of credentialing early childhood providers at a uniform national level, which may lead to increased job satisfaction, pay increases, and less turnover in early childhood settings (McLean et al., 2019; Sutcher et al., 2019).

In addition, the purpose of this study was to look at PD that is directly related to working with infants and toddlers with special needs. For families with infants and toddlers with developmental delays and special needs, there continues to be limited options for early childhood settings that are high quality options and can accommodate and work with their infants and toddlers (Weglarz-Ward et al., 2019). Families raising infants and toddlers with special needs face larger constrictions with the balance between caregiving and employment responsibilities, resulting in a negative effect of maintain parental employment (Costanzo & Magnuson, 2019). Increasing the opportunity for infants and toddlers with special needs to be educated in inclusive settings is beneficial to the child, to their peers, to the family, and to the early childhood providers (Novoa,

2020). These challenges not only affect the families and support systems for infants and toddlers with special needs, but early childhood providers can also suffer from lower confidence and competence when working with any infants and toddlers with developmental delays or special needs (Ackah-Jnr & Udah, 2021; Ainscow, 2020). This study was important because it focused on infants and toddlers with special needs being cared for and educated in inclusive settings with early childhood providers who do not have special qualifications in special education and focused on the experiences and perspectives of those providers.

<div align="center">**Summary**</div>

Researchers have shown that families of infants and toddlers with special needs have the same childcare and education needs as families with typically developing children but are more challenged to find high quality inclusive environments that can support their children (Klibthong & Agbenyega, 2022; Weglarz-Ward et al., 2019). Access to inclusive settings is critical for families in terms of financial challenges and parental support but also important for fostering developmental progress in the infants and toddlers (Wertlieb, 2018). In order to support families with infants and toddlers with special needs, it is necessary to support the early childhood providers who are working in these inclusive settings (Brunsek et al., 2020). PD has been shown to be a bridge to building the confidence and competence for educators working in inclusive settings (Noonan, 2019). However, research has shown that the education opportunities and training of early childhood providers to work with infants and toddlers with

developmental delays and special needs is less accessible and its quality and impact on practice is less known (Frantz et al., 2022; Metscher, 2021).

In order to create more supportive PD that supports early childhood providers to work with infants and toddlers with special needs in inclusive settings, more research is needed to understand the current and past experiences and perspectives of early childhood providers (Metscher, 2021). Research has shown that when early childhood leaders understand the perspectives of teachers regarding their own experiences with PD, administrators and leaders can better create high-quality PD training that match the needs of early childhood providers (Makovec, 2018). The purpose of this study was to understand what training early childhood providers report they have had and what training early childhood providers perceive that they need to support infants and toddlers with special needs in inclusive settings.

Chapter 2: Literature Review

Like many other professions, supporting early childhood providers through PD training is effective for keeping individuals knowledgeable about new research and practices, as well as supporting them at different stages of their career (Bredekamp & Willer, 1992; Frantz et al., 2022). PD can look like workshops, conferences, continuing education courses, coaching, or consulting services and be presented in-person, online, or through asynchronous learning (Cramer et al., 2021; Lofthouse, 2019; Metscher, 2021). Many PD trainings are created and facilitated by state-wide or credentialing bodies for early childhood providers, some are conducted directly through family childcare associations or programs, and some others are conducted by individual organizations or consultants. Research in this area often looks at what constitutes high-quality PD looks like in terms of format. Major factors that have been noted are (a) ongoing processes and support as opposed to one-shot workshops, (b) tailoring content for specific groups of teachers versus more general goals or information, (c) encouraging collaboration among teachers, (d) giving opportunities for hands-on practice to construct new knowledge, and (e) using follow-up consultation or coaching to connect knowledge to classroom practices (Wei et al., 2010). These are critical factors for designing effective PD but are mostly focused on how the training is delivered.

There is current research aimed at examining the effectiveness of PD for early childhood providers, but the measurements of effectiveness are different across each study (Brunsek et al., 2020; Han et al., 2021). For example, some studies have looked at direct impacts of teacher PD on child outcomes and how the children are doing in those

classroom or program settings (Egert et al., 2018; Jensen & Rasmussen, 2019). Other qualitative research has tried to understand the thoughts, opinions, and perspectives of early childcare providers and has attemped to better recognize the impacts of PD on the practices of those providers (Mouza et al., 2022; Wiggs et al., 2021). Qualitative research looking at PD can better gather data and experiences from early childhood providers and analyze the complex course of teacher development.

The whole teacher approach focuses on the importance of PD to impact on the attitudes, knowledge, skills, and practices of educators (Chen & McCray, 2012). This conceptual framework acknowledges how PD can impact the practices of early childhood providers and the skills and knowledge that are taught through these experiences. However, it also stresses the importance of also looking at how PD training can affect the attitudes of educators, including confidence, competence, and their views on instruction, curriculum, or assessment (National Association for the Education of Young Children, 1993). The whole teacher approach looks to address the social/emotional, cognitive, and behavioral needs of teachers and teacher development (Chen & McCray, 2012). When PD focuses on working with infants and toddlers with special needs or any other population of children with development delays, it can also impact the self-efficacy to work with these children and overall views on disability (Catalano et al., 2022). However, there is a current gap in the literature for looking at the perspectives and experiences of early childhood providers related to PD for working with infants and toddlers with special needs in inclusive settings. The whole teacher approach can frame

how to better understand these experiences and perspectives of these early childhood providers and the impacts of this PD on their attitudes, knowledge, skills, and practices.

Literature Search Strategy

Several search databases on the Walden University Library website, such as Thoreau Multi-Database Search, ERIC and Education Research Complete, Google Scholar, and Dissertations were used to find resources related to the research problem. In searching peer-review sources and seminal works, subject terms such as *infants and toddlers, inclusive settings, special education,* and *early childhood* were used in combination with *PD, training, attitudes, confidence,* and *continuing education*. Conditions on the time of publication (within the last 5 years) and document type (peer-reviewed, academic journal) were set to ensure that reliable sources for research were obtained. Some earlier sources were included because of significant relevancy to this topic. A comprehensive search of databases provided a solid foundation for this study, and the literature supports the relevance of retention as a topic of investigation.

Conceptual Framework

In the field of ECE, it is a widely accepted belief that curriculum and instruction for infants and toddlers should focus on the development of all areas of development (Chen & Chang, 2006). The whole child approach focuses on the interconnectedness of language, social, motor, and cognitive skills in the early childhood years (Temkin et al., 2020). Contemporary theories related to child development outline the importance of looking at how children develop holistically, with every area of development progressing at the same time. Research from the National Association for the Education of Young

Children (NAEYC; 1993) demonstrated the positive and lasting impact of the whole child

approach on healthy development. The practice of focusing on whole child development

when creating learning environments and curriculum is a goal of early childhood

providers.

In parallel to these goals of educating infants and toddlers, Chen and McCray

(2012) created the whole teacher approach as a framework for also educating and

supporting providers and teachers that work in the field of early childhood. The whole

teacher approach moves away from the model of workshops and trainings that focus

exclusively on information and knowledge-building for participants. The whole teacher

approach looks at the development of the attitudes, knowledge and skills, and classroom

practices that can be addressed and progressed through PD (Chen & McCray, 2012).

Similar to the beliefs and research that structure whole child learning, this framework

looks at the interconnectedness of attitudes, knowledge, and practices for educators and

that all three dimensions play an important role in teacher development. One such theory

related to the development of this framework is that this method will give educators and

providers multiple pathways to their own learning and acknowledges the different stages

of progress for each individual. For example, one struggling teacher may make the most

significant progress in their classroom by adjusting their own opinions and overall

confidence, while another struggling teacher may see the same progress by focusing on

skill acquisition in a specific area of need. This approach looks to accommodate the

needs and motivations of adult learners rather than a singular path to overall

improvement (Chen & McCray, 2012). This is also part of what makes the whole teacher approach multidimensional.

Another aspect of the whole teacher approach that differentiates it from other PD frameworks is that the goals of the training are integrated. This is based on the principle that attitudes, knowledge, and practices are interrelated and can influence each other (Chen & McCray, 2012). As opposed to separate trainings and goals related to either attitudes or skills or practices, the whole teacher approach uses instructional strategies that integrate the goal areas to maximize growth for the teachers (Ackah-Jnr, 2020; Chen & Chang, 2006). Building the confidence of a teacher contributes to the readiness of teachers to learn and develop new skills and can also motivate their implementation into the classroom and a teacher's practice. In comparison, a teacher who is able to successfully implement new practices may gain self-efficacy in the classroom and be more open to developing new knowledge in other areas. The whole teacher approach framework looks at the integration of these different areas of teacher development.

In addition, the whole teacher approach indicates the importance of domain-specific PD. Research has shown that PD objectives that are domain-specific provide a more significant basis for selecting content and learning strategies to be included (Merriënboer & Kirschner, 2017). Objectives are designed based on performance requirements and content that is specific to PD domains and disciplines (Chen & McCray, 2012). For example, PD offerings that target group behavior management in early elementary years, early literacy skills in preschool, or toddler self-regulation are

precise in focus and designed to meet the individual needs of those specific teacher populations.

Finally, the whole teacher approach is a developmental approach to PD that acknowledges the path from novice to expert teacher. Similar to the multidimensional processes that create different paths to learning for the participants, a developmental PD program will provide objectives and content that are distinct for different levels of experience and expertise (Chen & McCray, 2012). To be most effective, PD need to be matched to the experiences, needs, interests, and level of educators participating (Chen & McCray, 2012). The whole teacher approach looks at program outcomes that build upon the developmental stages of teachers in the field.

PD: Attitudes

The whole teacher approach was specifically designed for early childhood educators and providers and includes that PD should promote of the attitudes of teachers in the field (Chen & Chang, 2006). PD is designed to impact the attitudes of educators, and early childhood providers may be focused on self-efficacy, confidence, values, principles, or philosophies. Vartuli (2005) identified that the strength of positive teacher attitudes determines how much effort an educator will expend on a lesson and their level of perseverance when faced with adversity in the classroom. All educators, regardless of the age of child that they work with, hold a certain set of beliefs around teaching and working with children. These beliefs can be the effect of experiences, education, personality, and culture for that individual educator (Hooper et al., 2022). PD

opportunities and support can be designed to address one or many of these parts of teaching attitudes and the impact that it has for overall high-quality education.

One specific aspect of attitudes that is often addressed in PD is the concept of self-efficacy. Self-efficacy can be defined as "the belief in one's capacity to organize and execute the course of action required to manage prospective situations" (Bandura & Adams, 1977; pg. 28). For educators, self-efficacy is the understanding that they have the power to teach in a way that meets the needs of the students and that they can control their own behavior and actions in the classroom. Self-efficacy is also directly related to self-confidence and feelings of competence for educators. Research has shown that PD specifically for early childhood providers significantly increases the self-efficacy and motivation of the participants (Hyseni Duraku et al., 2022). In addition, Nithyanantham (2021) studied the levels of self-efficacy of educators in comparison to other factors, like gender, educational qualifications, age, and subject taught. He found that self-efficacy was influenced by PD training, but that PD effectiveness was also influenced by the initial feelings of self-efficacy of educators before their training.

Research has shown direct connections to the success PD for educators and the concept of self-efficacy and professional confidence. Catalano et al. (2020) looked to better understand the role of self-efficacy and educators working with children with special needs. They focused on teachers in early childhood providers working in inclusive classroom and those who had experience working with children with ASD. They found that the self-efficacy of teachers about their ability to understand and teach children with ASD mediated the effects of teacher development and education. In

addition, the early childhood providers in the study who were participating in a course on ASD reported changes in their perceptions of children with ASD and their self-efficacy increased over the course of the PD.

Research like this reveals that there is a link between the views and beliefs about children with special needs and self-reported classroom practices and that PD can impact those beliefs (Catalano et al., 2020). Teachers' decisions and judgements about instruction may be more based on their own beliefs on a topic instead of direct professional knowledge (Shavelson, 1983). For early childhood providers, there is not a nationally-standardized set of professional knowledge that everyone is exposed to, and the impact of set beliefs on a topic may be more relevant for a workforce that is underprofessionalized (Gardner-Neblett et al., 2021). For example, developmentally inappropriate classroom practices in Head Start classrooms have been associated with the teachers' inappropriate beliefs about child behavior and development (McCarthy et al., 2010). The whole teacher approach brings attention to the need to consider the preexisting beliefs and values of early childhood providers when designing and implementing PD.

Gardner-Neblett et al. (2021) used data from the National Survey of Early Care and Education to analyze the differences between preschool and infant/toddler educators in terms of their PD experiences and the influence on teachers and their beliefs about children. They looked at whether teacher beliefs aligned with either traditional beliefs or progressive beliefs. Traditional beliefs were identified as those advocating more authoritarian or adult-directed approaches, while progressive beliefs were defined as

supporting individual autonomy and authoritative adult-child interactions. Overall, in this study, they found that early childhood providers working with infants and toddlers were more likely to hold traditional beliefs related to child development and behavior, and also reported significantly fewer experiences with PD in the last 12 months. For both groups who worked in preschool and infant/toddler classrooms, PD in the form of one-on-one coaching was shown have the highest significance with progressive beliefs as well as self-reported planning for the classroom when compared to other forms of PD, like workshops, conferences, or college-level coursework. This study speaks to not only to the importance of acknowledging and understanding the existing beliefs of early childhood providers working with infants and toddlers but also the impact that PD can have in shaping those belief structures.

Another aspect of the belief structures and attitudes of early childhood providers is the professional identity of these educators. Professional teacher identity has been seen as the conception of the teacher of their own self and their role in learning and can be formed and reformed over time through a variety of experiences. Beijaard et al. (2004) also said that teacher identity is an ongoing process, is layered with numerous sub identities, is socially situated based on the school and environment of the teacher, and also emerges from the teacher's sense of agency. A teacher's professional identity is shaped by their experiences and can also influence and contribute to the way that they interpret that experience. In one such study, Noonan (2019) used the term *anchoring beliefs* to identify the belief systems that teachers possess in relation to their own teaching philosophies and identity, and he found that experience and identity affected the way that

the teachers discussed the effectiveness of similar PD experiences. In contrast, Averina et al. (2021) discussed the ways that creative pedagogical training shaped the attitudes and expectations of teachers to introduce new strategies into their classroom settings. Averina et al. showed that teachers were better able to achieve self-realization and a stronger sense of their own teacher identity through exposure to varied PD experiences. The process of developing a strong professional identity can be impacted by PD, but the belief structures and existing self-concept of an early childhood provider will also be a lens through which they understand and use these continued training experiences.

Teacher identities and belief structures are everchanging and an important consideration for any leaders in the field to understand when designed PD for early childhood providers but should not just be viewed as something to change. Noonan (2019) spoke of the misconception that anchoring beliefs are often seen as obstacles in PD and teacher education that need to be overcome and changed through training. Mezirow (1997) stated that in order to achieve transformational learning, these belief systems and structures for how teachers understood learning needed to be conquered. The whole teacher approach identifies that attitudes should be considered as an important aspect of any PD for early childhood providers, but it is critical to see attitudes, beliefs, and previous experiences as important lenses for how teachers are understanding their own development that can be used to create responsive and personalized PD.

One of the most targeted areas of PD has been focused on preparedness and how to influence the confidence and attitudes of early childhood providers. In their study of novice early childhood providers, Hooper et al. (2022) found that all of the providers that

they interviewed felt unprepared for certain aspects of their role in an early childhood program. However, each of the participants viewed this unpreparedness in a different way based on their belief structures. Of the early childhood providers who felt unprepared, some were looking for PD experiences that were specific to instructional strategies, while others felt that they needed more emotional support related to the teaching experience and classroom management. Effective and personalized PD for early childhood providers at different stages of their professional identity and experiences can help them feeling more prepared and confident in the classroom, but those needs are different based on self-efficacy, motivation and interest in learning (Hooper et al., 2022).

For early childhood providers who work in inclusive settings, there is continued research on how they feel unprepared to work with infants and toddlers with special needs (Espinosa et al., 1998; Francois, 2020; Kaczorowski & Kline, 2021; Makovec, 2018). Early childhood providers that work in inclusive settings are often hired without specific training and experiences in special education and lack self-efficacy and feelings of preparedness (Francois, 2020). Training programs and higher education do not often include the specific information, skills and strategies for working in inclusive settings or with certain populations of infants and toddlers (Darling-Hammond & Cook-Harvey, 2018; Francois, 2020). Kaczorowski and Kline (2021) found that teachers with an educational background of general education felt unprepared to work with children with special needs both in relation to social inclusion and instruction. They also found that educators with a specific special education background felt much more prepared and confident to work with a wide variety of learning needs, but believed that their

undergraduate field experience and exposure to directly working with children with special needs added to that preparedness. These were experiences that many of the general education teachers claimed that they did not have. In addition, research continues to show the lack of PD opportunities and post-graduate training options to supplement training and education for working with infants and toddlers with special needs (Kaczorowski & Kline, 2021).

The whole teacher approach highlights the importance of PD to include and underscore ways to understand, address and possibly develop the attitudes, beliefs and self-confidence of early childhood providers (Chen & McCray, 2012). Early childhood leaders need to understand the reciprocal relationship that exists between perspectives of effective PD and preconceived notions and attitudes of early childhood providers, and how these both can influence each other. Effective PD can aid in increasing self-confidence, self-efficacy, preparedness and teacher identity, but the attitudes and beliefs about teaching, children and special needs can also impact the way that participants get something out of the training experience.

PD: Knowledge and Skills

PD for early childhood providers often focuses directly on developing the knowledge base and skill set of educators to work with infants and toddlers (Chen & McCray, 2012). Many traditional PD programs are focused only on knowledge related to instructional methods or only related to knowledge about academic content. The whole teacher approach looks at knowledge-building in PD as a three-fold approach: (a) content knowledge (what to teach), (b) instructional methods (how to teach), and (c)

understanding child development and individual learning differences (who to teach)

(Chen & McCray, 2012). This combined approach is referred to as *pedagogical content*

knowledge, because these three areas of knowledge are interrelated for teachers in the

classroom. For example, knowledge about pedagogy is only effective when

understanding the developmental needs and individualized learning of the children in that

classroom. In addition, rich integration of content knowledge and pedagogy allows the

teacher to be able to make the content teachable. Fonsén and Ukkonen-Mikkola (2019)

demonstrated the effectiveness of a PD program for early childhood providers that aimed

to increase developmental knowledge, instructional strategies and skills related to

implementing new pedagogy in the classroom. This combination of the different areas of

knowledge building allows the whole teacher approach to address particular challenges of

educators in classrooms.

In the field of education for children of any age, new research is continually being

conducted to find the most effective and high-quality strategies for teachers to use. Often

referred to as evidence-based practices (EBPs), these recommendations from research are

being changed and updated continuously in the field of education. In order to stay up to

date with EBP in the field of early childhood, providers can either conduct their own

periodic research reviews or use PD opportunities to learn new knowledge, skills and

strategies (Barry et al., 2022). EBP and recommendations from research can be specific

to one content area or instructional method or be more generalized and updated

knowledge on child development. An important aspect of any PD experience for

educators is the imparting of new and relevant knowledge (Schachter et al., 2019).

Because of the evolving nature of education, Ring et al. (2019) also talks about the importance of educators being *life-long learners* and for teachers to be open to acquiring new knowledge throughout their professional experiences. This openness to learning new information, content and strategies make educators effective in creating high-quality learning environments for young children.

The whole teacher approach also addresses the importance of knowledge and skills being appropriate for each early child hood provider in terms of their current education and experience. In the field of early childhood, it is critical for providers to have established foundational skills and knowledge about child development, instructional methods and strategies for creating responsive and relationship-based learning environment (Clarke et al., 2021). State and federal credentialing for early childhood providers is so varied that there is a lack of requirements about foundational knowledge that all providers must have to work with infants and toddlers, and many licensing programs only require a GED and minimal college-level child development coursework (Sutcher et al., 2019). This creates a challenge for programs to find novice early childhood providers with education and training needed to work specifically with infants and toddlers, as opposed to either more general child development knowledge or experience in preschool settings. Frantz et al. (2022) specifically looked at paraeducators in early childhood special education programs and inclusive classroom and found that these paraeducators had limited training working with infants and toddlers with special needs. Arphattananon (2021) looked at cultural competence for teachers working with children who were culturally and linguistically diverse (CLD) and also found that

educators did not have the previous skills or knowledge about working with children from differing cultures. Novice educators participating in this study identified that foundational knowledge about children who were CLD was the most useful knowledge for their work in the classroom (Arphattananon, 2021). PD can be a way to support novice early childhood providers to bridge the gap of missing foundational knowledge.

One of the other features of the whole teacher approach is that knowledge and training should be domain-specific in order to be the most effective (Chen & McCray, 2012). Many different studies have demonstrated how PD that has a specific content or domain focus was the most useful based on participant perspectives. For example, Han et al. (2021) targeted family-based childcare programs with PD that was domain-specific regarding early literacy. Burris (2020) provided PD for childcare program directors related to their use of technology in their centers when working with their staff and families, and found that the specific focus was the best indicator of confidence in this area for the directors. Bruno et al. (2021) also found that the more focused the PD opportunities, the greater the impact on classroom practice for early childhood providers working with infants and toddlers with special needs. These are all examples of how PD for early childhood providers that is targeting knowledge and skill acquisition is most effective when it has a clear and defined focus, and only is looking at a specific domain of teacher development.

For early childhood providers who are working in inclusive settings, there is also a set knowledge foundation of special education and skills for working with infants and toddlers with special needs that PD can address. The knowledge and skills that providers

require for working with typically developing children and those infants and toddlers with developmental delays or special needs are very different. Research from D'Amico et al. (2020) was looking to address this gap in training and education for early childhood providers in associate programs specific to special education skills and knowledge. They created a PD program where university-based faculty with expertise in special education collaborated with an associate early childhood program to broaden the knowledge and skills that were being addressed in workshops and coursework. The content for these PD workshops were drawn from current EBP in the field of EI and early childhood special education, as well as community needs assessment and surveys from early childhood providers in inclusive settings. To achieve success in inclusive settings and high-quality experiences for infants and toddlers with special needs, early childhood providers need specialized knowledge and skills. PD focused on working with infants and toddlers with ASD was shown to not only impact child outcomes but also the knowledge and strategy toolbox for the participants (Aylward & Neilsen-Hewett, 2021). This study also highlighted the importance of using EBP and research-based knowledge in PD for working with infants and toddlers with special needs to significantly affect teacher knowledge and skills.

Chen and McCray (2012) highlighted not only the importance of addressing knowledge and skills in PD for early childhood providers, but also specific aspects of knowledge-building. The whole teacher approach encourages early childhood leaders and those providing PD to make their content domain-specific, research-based, and focused on building pedagogical content knowledge. In addition, there is a specialized knowledge

base for early childhood providers working in inclusive settings, so PD should include expertise and content that directly addresses certain developmental delays, special needs and strategies for working in these inclusive classroom environments.

PD: Practices

The ultimate mission of any PD for educators is to ultimately improve practice in the classroom. PD is used to supplement training and education for early childhood providers as research in the field changes and providers encounter challenges in their practice. When educators are making changes to their practices, they are engaging in both knowledge-construction and knowledge-internalization processes (Chen & McCray, 2012). As discussed above, the process of developing attitudes, knowledge and practices is an interactional process, where different areas of teacher development impact each other. When an early childhood provider is implementing new practices in the classroom, he or she is integrating their new knowledge and deepening their understanding. In addition, when a provider is successful in implementing a new strategy or practice, or sees a positive student outcome, it will also increase feelings of self-efficacy and confidence (Catalano et al., 2022). The whole teacher approach includes the shift from just knowledge-building and skill development to application of this new content into updated practices in the classroom.

As aforementioned, the focus of many PD experiences for early childhood providers is the initial process of building knowledge or understanding about a concept or topic in early childhood. However, there is a gap between the ultimate goals of the PD, to improve teaching in the classroom, and the learning objectives of a workshop or course

that does not include practical application of these skills (Archie et al., 2022). In one study, Clarke et al. (2021) surveyed early childhood providers about their experiences with and perspectives of the most useful PD. The participants all noted that the most frequently used PD that they attended were one-time workshops. However, they also stated that they largely had not experienced any PD that led to prompt shifts in their practices, and attributed that to the model of relying on workshops. The missing link of knowledge application affects the effectiveness of PD and creates a gap for early childhood providers.

There has long been a gap in the field between research in the field and actual changes to practice in the classroom (Romano & Schnurr, 2022). This is seen in aspects of the educational field, but is especially apparent in early childhood settings. Taylor et al. (2022) spoke to this gap between EBP and recommendations for practice from the Division of Early Childhood (DEC) and what is happening in inclusive early childhood settings. PD can be an effective bridge between research and practice because it can teach the content and strategies in different ways, and also may lead to the discovery of future PD needs for the participants (Maryam et al., 2020). When early childhood leaders and those providing PD acknowledge the necessary link from research to practice in designing experiences that focus on knowledge application, it leads to a more defined focus on application and real-life translation of the skills for educators.

The ultimate goal of PD is not only to improve teaching strategies, but also to therefore positively affect child outcomes. The impact of PD and its direct link to how children are improving their skills, test scores or overall development is another common

research focus. Hanno (2022) studied an alternative PD light touch program where participants were sent text messages with tips, strategies and pieces of knowledge to increase the support of language development, specifically the use of open-ended questions. The data found that early childhood providers who received these messages spoke more to the children in their settings, especially early childhood providers in home or family-based settings. This increase is a specific teaching practice directly impacted the language skills and development of the children in those programs. Additional research looking at behavioral skills training in early childhood settings saw an increase in child outcomes, especially those children who were already diagnosed with ASD (Mrachko et al., 2022). Baird and Clark (2018) looked at two different forms of student outcomes: student achievement on tests and teachers report of student performance. In the PD model that they studied, addressing instructional strategies that increase student discourse and reasoning, the teachers who participated reported that the students were more independent, demonstrated their understanding more frequently and were more willing to take risks in the classroom. Their study did not find an improvement in test scores, but the perceptions of the teachers and the classroom environment impacts were important to see the role of the PD experience. This research also pointed to the need to assess student outcomes in a variety of methods to truly see the impact of the teaching practices. The format and content of these programs were vastly different but demonstrated a positive impact on the children when the practices of the early childhood providers were improved.

One effective strategy for those providing PD to early childhood providers is to decrease the time and effort between when a participant is learning new information and has the opportunity to put it into practice (O'Brien et al., 2022). This is often seen as *job-embedded practice* and includes other modalities of PD that support the translation of knowledge into what happens in the classroom. Wiggs et al. (2021) studied paraprofessionals in special education settings and found that their experiences with PD were not job-embedded, and therefore their perceptions were that it was too challenging to process and then implement into practice. Other research has also pointed to the importance of making the connection between what is been learned in PD or continuing education and what is happening in practice in real life (Burner & Svendsen, 2020). This same research pointed to the developmental process of learning that teachers provide to students, and the importance of hands-on, practical opportunities to demonstrate understanding. They stress that educators who are learning from PD should be experiencing the same developmental process of acquiring new information and practicing that they offer to their students (Burner & Svendsen, 2020). PD that is also embedded into classroom implementation and practice is important for the transition to knowledge-internalization.

There is a lot of recent research looking at formats and programs that are addressing the translation of new knowledge into practice, and how there can be various stages and phases of support that PD can offer early childhood providers. Some PD programs are finding ways to including implementation, observation, and feedback as built-in aspects. There are PD programs that include follow-up support and individualized

coaching in the classroom, where the PD facilitator observes and supports the early childhood provider in their implementation (Mouza et al., 2022). Research on these programs also show that these PD experiences include more chances to practice new skills through the knowledge-building part of the program as well (Dunst et al., 2019; Mouza et al., 2022). Kidd and Rowland (2021) studied a language-focused PD program where the first phase focused on improving and adding to foundational knowledge on the topic, and the second phase supported educators in the classroom to implement what they have been taught. Another research study focused on teaching a positive behavioral support (PBS) program in an early childhood inclusive setting used a similar 2-phase system of first building knowledge and then providing opportunities for participants to implement the skills in the classroom (Chu, 2022). This program was time-intensive and involved participants in intervention training sessions 1-2 times a week for a period of 10-12 weeks where they were observed practicing behavioral support strategies and family collaboration in classroom settings. A PD program introduced by Dzamesi and van Heerden (2020) was a four-phase program teaching play-based pedagogy in early childhood settings. In this model, the third phase involved the participants engaging in hands-on activity-based tasks. The fourth and final stage involved participants working in teaching pairs to implement the play-based strategies in their own settings. The pairs would take turn teaching, observing, and providing their partner feedback on the new practices that they were implementing. There is more evidence now in the field that there are ways to incorporate more links directly from presenting knowledge and practicing in

the classroom with support within a single PD offering, but those programs are more time-intensive for the facilitator and participants.

In the field of early childhood special education, there is even more of a need for the providers to be able to translate knowledge and research into practice since they are working with a vulnerable population where EI and high-quality experiences are paramount (Mintz et al., 2021). Research into PD programs that target early childhood providers often focus on working with children with a specific diagnosis, like ASD, or a specific practice in the classroom, such as transitional support. For research focused on working with children with ASD, the findings show that educators report an improvement in their awareness of the components of the diagnosis, the different strategies that are effective and their overall skills that they practice in the classroom (Chu, 2022; Mrachko et al., 2022; Petersson Bloom, 2021). For early childhood providers, domain-specific and skill-specific PD has been shown to be even more imperative to impacting practice in the classroom. McLeod (2020) looked at the implementation of time delay procedures in early childhood special education settings, and the effectiveness of a PD program to train and support the providers. This specific teaching strategy used in special education classrooms is an example of EBP practice that is not addressed in most teaching education programs so was appropriate as a skill to be targeted during PD for those participants. The study found the participants were successful in implementing this new teaching strategy into their classroom practices and discussed the importance of refined and focused training for providers to learn specific strategies. Recent research has been focusing more on the PD offered in early childhood

special education or inclusive settings and the needs of early childhood providers working in these settings (Clarke et al., 2021; Taylor et al., 2022).

Summary and Conclusions

The whole teacher approach (Chen & McCray, 2012) is an effective framework for designing and implementing PD for early childhood providers because it aligns with the *whole child* approach of teaching that educators in the field know (Temkin et al., 2020). Just as early childhood providers design classrooms, curriculum and activities that target global and whole child development, the whole teacher approach approaches PD as needing to address attitudes, knowledge and skills and practice. PD that only focuses on only *one* of these aspects of teacher identity and development will not have the same impact on changing how teachers can build knowledge, translate knowledge into practice, and increase their own confidence and self-efficacy. The whole teacher approach also examines the interconnectedness of these three areas of development, like how confidence can impact implementation or knowledge can impact self-confidence (Chen & Chang, 2006). Finally, the whole teacher conceptual framework is lens for understanding the experiences and perspectives of early childhood providers regarding their PD experiences and how they view their own needs, priorities, skills, and attitudes.

Despite the abundance of research related to how PD can impact and influence classroom practices for early childhood providers, most of the research related to working with children with special needs focus on children in preschool early childhood settings and older. There is still a gap in research looking at the effectiveness and impacts for early childhood providers who are working with infants and toddlers with special needs.

Qualitative research that is focused on the experiences and perspectives of this group of providers working with the most vulnerable and youngest populations with special needs is imperative to better understand how to train, educate and support early childhood providers in inclusive settings.

Chapter 3: Research Method

The purpose of this study was to understand what training early childhood providers report they have had and what training early childhood providers perceive that they need to support infants and toddlers with special needs in inclusive settings. Chapter 3 includes a description of the research design and rationale, the role of the researcher, and the methodology including instrumentation, participant selection, and procedures for recruitment, participant selection, and data collection. Additionally, there is a summary of the data analysis plan, issues of trustworthiness, and ethical procedures, and a summary.

Research Design and Rationale

This study was a basic qualitative research study. The purpose of the study was to understand the experiences and perspectives of early childhood providers in relation to PD training. I had also considered other research design methods for this study, including a case study and a project study. A case study is used to study a topic of interest over time and uses multiple sources of data to share information about that case that may include multiple sites or one site (Creswell & Poth, 2016). For this study, other data points or pieces of information, such as classroom observations or student reports, would not have been relevant to understanding the perspectives and experiences of the early childhood providers. Secondly, when considered a project study design, it would require the development of an actual PD training related to working with infants and toddlers with special needs and then the implementation of that training. Without understanding the past and current experiences of PD training for early childhood providers and knowing more about their own perspectives of what would be most relevant and useful to them,

the creation of another PD training would not be as effective. PD training should help to develop attitudes, knowledge, and practices in the classroom (Chen & McCray, 2012), and interviewing early childhood providers is one way to better understand their previous experiences before creating something new.

A basic qualitative study focuses on understanding the experiences and perspectives of others (Caelli et al., 2003). When researchers use a basic qualitative approach, they are looking to understand how individual interpret their own experiences and respond to events by collecting rich, accurate descriptions of their experiences (Kahlke, 2014). Data are also collected on the opinions and perspectives of the participants. This methodology then has researchers analyze the data using coding to incorporate descriptions of the findings and putting meaning into the interview responses of the participants (Kahlke, 2014). This study included semistructured, responsive interviews with early childhood providers who have had previous experiences with PD training regarding infants and toddlers with special needs and who have worked in an inclusive setting for infants and toddlers. The RQs that were addressed in this study were as follows:

RQ1: What training do early childhood providers report they have had to support infants and toddlers with special needs in inclusive classroom settings?

RQ2: What training do early childhood providers perceive they need to support infants and toddlers with special needs in inclusive classroom settings?

Semistructured, responsive interviews were used to address these RQs to be able to gain a deeper understanding of the early childhood providers' experiences and

perceptions about their past PD training. Using responsive interviewing in the basic qualitative design helps researchers to elicit more detailed descriptions from the participants. In addition, using open-ended and follow-up questions in responsive interviewing allows participants to expand upon their responses and for the researcher to gather more detailed data (Rubin & Rubin, 2011). More detail about the interview process, including the conceptual framework that guided the creation of the interview guide, is found in a later section.

Role of the Researcher

Because this was a basic qualitative research study, the participants shared their experiences and perspectives with me, and then I reviewed and analyzed these narratives for common themes (see Rubin & Rubin, 2011). Therefore, the researcher served in the role as an interpreter to the narratives and stories told by the interview participants (Gregory, 2020). In semistructured qualitative interviews, the researcher is an active participant in the interview process, but it is important for the participants to discuss their experiences and present their stories without interference or direction of the researcher (Rubin & Rubin, 2011). The researcher also must understand the power dynamics that may present during an interview and the ways that the researcher's presence and questions may impact responses (Gregory, 2020). The lived experiences and previous biases of the researcher play an active role in the interview process, and researchers must be self-aware of their predispositions and responses to the participant (Rubin & Rubin, 2011).

Self-reflection and reflective journaling are tools that qualitative researchers can use actively throughout the study to ensure that their own beliefs and conclusions are separate from the data and interview narratives that they are collecting (Ravitch & Carl, 2019). I used reflective journaling to examine my own experiences when interviewing participants and identifying possible areas of conflicts of interest. Taking the time to be reflective throughout the process allows a researcher to better separate their own biases and thoughts and allows them to make rational decisions throughout data collection and analysis (Karagiozis, 2018).

In this basic qualitative study, I recruited participants through social media and online platforms; therefore, I did not have any previous relationships or contact with the participants before they agreed to participate in the research study. This format of recruitment limited power dynamics and conflicts of interviewing participants that I may have worked with in the past or currently had professional relationships with. Professionally, I provide many PD training and trainings in the field for early childhood providers. My personal bias about the importance of PD for inclusive classroom settings for infants and toddlers and the knowledge and skills that would be important for early childhood providers may have tainted my interview protocol and view of participant responses. Therefore, I ensured that I documented all my personal reflections in my journaling process, and the final data were reviewed by an expert reviewer to check for research bias. Any other ethical issues that arose during data collection were addressed during reflective journaling and by adhering to the institutional review board (IRB)-approved semistructured interview questions.

Methodology

This research study used a basic qualitative design to collect and analyze data related to the RQs. The data were collected through semistructured interviews with early childhood providers to better understand what training early childhood providers reported they have had and what training early childhood providers perceived that they need. In this section, I discuss the participant selection logic, instrumentation, procedures for recruitment, participation, data collection, and the data analysis plan.

Participant Selection

In qualitative research, the goal is to understand the experiences and perspectives of individuals because they are considered the experts of their own experiences (Ravitch & Carl, 2019). Because the purpose of this study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need, the participant pool was early childhood providers. Including a specific population of early childhood providers with both experiences of PD training and working with infants and toddlers with special needs added to the trustworthiness of the data.

I established the following inclusion criteria for all potential participants to ensure that they had significant experiences that added to the richness of the data: aged 21 or older at the time of their enrollment in the study, early childhood providers who were currently working in an infant classroom, toddler classroom, mixed-age classroom, or home-based childcare program and who had experience in one of these settings for more than 2 years. I also included participants who had attended or participated in a PD

training in the past 5 years that addressed any aspect of working with infants and toddlers with special needs or diverse learners. Finally, I recruited participants who identified as having worked with an infant and toddler either developmental delays or special needs in the last 5 years as well. The goal of the participant selection was to recruit early childhood providers who both had recent experiences working with infants and toddlers with special needs and experiences with PD training that addressed knowledge, skills, and practices for working with infants and toddlers with special needs. I ensured that participants met the inclusion criteria through a virtual survey sent to them with the consent information.

All potential participants were recruited through social media and online platforms, such as professional and organizational websites for early childhood providers and educators. I used electronic bulletin boards and groups that contained early childhood providers and personnel. To recruit participants for this qualitative study, I first obtained approval from Walden University's IRB. I ensured that I received confirmation of the formal ethics approval before beginning any participant recruitment or starting to collect any data for this study. I only used my Walden University issued email address to recruit and communicate with all potential participants. After receiving approval from the IRB, I followed the procedures outlined. I did not use the website name in any documents published related to the study.

My recruitment process was as follows and was the same for each website organization. First, I sent the recruitment flyer to the website manager. Then, I asked the website manager to forward/post the flyer on my behalf to their website or electronic

bulletin board. The recruitment flyer provided the potential participant with a general overview of the study, including the description and purpose of the study. Finally, in the recruitment flyer, at the bottom of the flyer, I said, "If you are interested in possibly volunteering to participate in this study, please click the word '**NEXT**' at the bottom of this flyer, which will take you to the letter of consent that provides more information about this study and participant information." Once the potential participant clicked "NEXT," the notice of consent was visible to the participant. The word "NEXT" was hot linked to the consent form that was configured in the virtual survey. The consent contained a reminder that all participants who desired to participate in this study do so on a voluntary basis and that their participation would not influence their status or position. The consent also contained information relative to theses specific areas: (a) background information, (b) procedures, (c) sample interview questions, (d) voluntary nature of the study, (e) risks and benefits of being in the study, (f) compensation, (g) privacy, (h) contacts and questions, and (i) obtaining consent. The consent contained a list of the activities each participant would be requested to be completed if they were interested in participating in the study and the time to complete each activity. Once participants consented, they were directed to a demographic screener to ensure that the participant met the inclusion criteria and to collect the pertinent demographic information. Once this was completed and submitted, individual semistructured interviews were scheduled.

Instrumentation

To obtain data for this qualitative research study, I used semistructured interviews with open-ended questions. The open-ended questions were created based on the

conceptual framework of the whole teacher approach. The whole teacher approach

addressed the effects of PD on the attitudes, knowledge and skills, and practices of

educators. This format ensured that the participants were given the same questions for

data collection but allowed for individual, expanded answers and follow-up from me for

clarification. I audio recorded each of the participant interviews using a virtual platform

to allow for analysis at a later time. I developed an interview protocol based on the

conceptual framework, aligning the interview questions with all RQs to achieve

methodological congruence (see Rubin & Rubin, 2011). During the interview process of

data collection, the role of the researcher can affect the interactions with the participants

(Gregory, 2020), so the same interview protocol was used for all participants to ensure

that each interview was conducted in a systematic way.

The semistructured interview is a commonly used method of data collection for

qualitative research and allows the participants to share their own experiences and

narratives in their own words (Ravitch & Carl, 2019). I followed a consistent procedure

when using a standardized open-ended interview and set interview questions on a

protocol. The use of open-ended questions in semistructured interviews allows the

participant to talk about their own perspectives and experiences from their own

viewpoints (Ravitch & Carl, 2019). In addition, using the same interviews questions and

procedures for each participant interview focused the process and allowed me to focus on

the conceptual frameworks, RQs and central canons of the research, while still promoting

flexibility to obtain information from each participant with additional prompts or probes

(see Ravitch & Carl, 2019). The conceptual framework of the whole teacher approach

(see Chen & McCray, 2012) guided the design of the interview protocol and focused on how PD may influence the attitudes, knowledge and skills, and practices of early childhood providers through capturing data about experiences and perspectives. In addition, the questions were designed to verify content validity and grounded in the literature, purpose, and RQs of this study (see Baskarada, 2014). The semistructured interview questions were reviewed before and during the data collection process to ensure that they were not leading or impacting any of my biases. The semistructured interview protocol was also reviewed by the committee members to ensure for quality and alignment in order produce meaningful analysis.

Procedures for Recruitment, Participation, and Data Collection

Before any recruitment of human participants in this study, the Walden University IRB board was informed of all research procedures and provided approval. I recruited participants using a self-designed flyer describing the study and distributed this flyer via social media and online professional platforms in order to recruit early childhood providers from a variety of programs and with varied experiences. I used electronic bulletin boards and groups that contained early childhood providers and personnel. I submitted the recruitment flyer for approval from the website managers of these sites, and I asked the website manager to forward/post the flyer on my behalf to their website or electronic bulletin board. The electronic recruitment flyer contained links for all interested participants to review the purpose of the study, understand the consent process, and provide a demographic screener that confirmed that participants met the inclusion criteria. Incentives, in the form of small gift cards to a national online shopping retailer,

were provided to aid in recruitment and provide compensation for the time of the participants.

A consent form was provided to each interested participants via the recruitment flyer and included all information related to the background of the study, risks to participants, and their rights to privacy related to the use of their data and how they are providing information. At the bottom of the recruitment flyer, I said, "If you are interested in possibly volunteering to participate in this study, please click the word '**NEXT**' at the bottom of this flyer, which will take you to the letter of consent that provides more information about this study and participant information." Once the potential participant clicked "NEXT," the notice of consent was visible to the participant. The word "NEXT" was hot linked to the consent form that was configured in the virtual survey. The consent contained a reminder that all participants who desired to participate in this study do so on a voluntary basis and that their participation would not influence their status or position. The Consent also contained information relative to these specific areas: (a) background information, (b) procedures, (c) sample interview questions, (d) voluntary nature of the study, (e) risks and benefits of being in the study, (f) compensation, (g) privacy, (h) contacts and questions, and (i) obtaining consent. The consent contained a list of the activities each participant would be requested to complete if they were interested in participating in the study and time to complete each activity. After the participant consented to be a part of the study, I scheduled 60-minute individual interviews with all potential participants, and interviews were conducted through a video conference platform. This platform format and interviews were conducted through video

conferencing in order to meet the scheduling needs of potential participants and also allowed participants from areas all over the United States to participate if they were interested. These interviews were recorded via the online platform on my personal computer and transcribed using software that was compatible with the video software. This allowed me to actively listen and engage in the semistructured interview and to follow up with additional probes and prompts as needed. The audio transcriptions were then used for data analysis later. All participants consented to and permitted audio recordings, and all recordings were stored in password-protected folders on my personal computer in a locked office drawer when not in use.

It was important to build trust and a rapport with all participants during the interview process (see Rubin & Rubin, 2011). Once a level of trust is developed between the participant and researcher, then the researcher can begin asking the open-ended questions in the interview protocol. This format of conversation ensures the collection of useful information for the research and thoughtful inquiry during the interview process (Rubin & Rubin, 2011). The level of trust between the participant and researcher ensures that the information shared is accurate, truthful, and the true perspectives of the participant (Colombo-Dougovito, 2019). In these individual interviews, the participants were allowed to share their experiences and perspectives with judgements or the peer pressures of being interviewed in a group setting (see Rubin & Rubin, 2011).

The participant was given the opportunity to voice any concerns or ask any additional questions upon completion of the interview about the collection of their information, ensuring the continued trust and rapport with me. I provided contact

information to all participants so they could follow-up in the future regarding any aspects of the study and offered them the option of member checking the findings after the study was completed because it is important that all the experiences and perspectives of the participants are adequately represented and interpreted.

Data Analysis Plan

The goal of data analysis is to make sense of the collected data through a process that answers the RQs of a study (Merriam & Tisdell, 2015). To best analyze the data that will be captured during semistructured interviews, I first ensured that all data and recordings were stored properly. I reviewed all recordings and transcriptions to ensure completeness and used member checking, which allowed for participants to review their interview transcriptions and check for accuracy. Upon completion of all interviews and data collection, the recorded and transcribed interviews were analyzed using several different methods of qualitative analysis.

I used qualitative content analysis, where the researcher is looking for the presence of certain codes, categories and themes in the transcripts that may represent specific concepts related to the phenomenon being studied (Saldana, 2021). I used a 5-Phase cycle analyzing the data for this qualitative study that included: (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting and (e) concluding (see Yin, 2015). During the entire data analysis process, I continuously checked my data to ensure that the analysis was thorough and looked for any biases that may arose. I used my conceptual framework of the whole teacher approach to ground the data analysis using a Priori codes in the research. I used a constant comparative method to help group data into themes,

uncover potential patterns, look for differences and similarities and identify constructs (see Baskarada, 2014). These themes that emerged informed the answers to the RQs about the experiences and perspectives of early childhood providers. The first step of the data analysis process is compiling.

Compiling

After completing all my interviews, I began to organize the transcribed data into a useful order (Yin, 2015). This included all transcriptions of the interviews as well as any field notes that I captured. Part of the compiling process was to review and revisit all the transcriptions and field notes to reflect on the vocabulary that was used during the interviews and to also overall refamiliarize myself with the responses. This information was manually organized into documents and spreadsheets. I then created a manual document to track these key words and their possible synonyms so I could search for similar terms used in all of the interviews by the participants. During the organization of these data, I also looked for words, concepts, and connections to my conceptual framework of the whole teacher approach. In my next step, I disassembled these data, looking for common vocabulary.

Disassembling

The second phase of this data analysis system involves breaking down the data into even smaller pieces based on codes, labels, or common vocabulary (Yin, 2015). This stage began with a priori codes based on the initial observations from field notes as well as sorting of the data. These data were organized into a spreadsheet with six separate columns for participant, original field notes or text excerpts, a Priori codes, open codes

categories, and themes that became apparent after these data we coded using content analysis that includes both deductive and inductive coding. The system of organization allowed me to see initial themes and concepts from these data as they were emerging and to begin linking the categories and themes. I then looked for patterns in the data in the next step of my analysis, reassembling.

Reassembling

The reassembling process (Yin, 2015) is the third part of this qualitative data analysis system and requires the researcher to begin looking for patterns. I took the data that was separated and organized and began grouping like ideas and concepts together. I disassembled these data using a Priori coding, based on the conceptual framework, and used open descriptive coding, a form of inductive coding. I continued to use spreadsheets to organize these data and to create pivot tables following each round of coding to examine the codes visually for possible patterns. I conducted 1 Round of a Priori coding and 1 Round of open descriptive coding and then examined the codes to consider categories. Thus, I completed the reassembling process by grouping the codes into patterns that emerged into categories. The disassembling and reassembling phases happened cyclically, and I needed to go back and forth to reorganize the data as different themes and patterns were emerging in analysis. In addition, this process of moving between phases two and three of this process better protects against possible biases and initial judgements, and allow for reflection when examining the patterns in the data (Baskarada, 2014). In the next phase of the Yin's 5-Phases of coding, I began to consider emerging themes based on the categories.

Interpreting

The fourth stage of this data analysis process, I described the findings from the data and the themes that had been identified. The process of interpreting involved a recompiling of the initial data to better understand the meaning from the interview transcriptions. I used pivot tables and visual representations of the data and a comprehensive descriptive narrative to summarize and explain the data and themes. I examined the categories that emerged from the one round of a Priori coding and one round of open descriptive coding. In the final phase of the 5-Step process I considered the themes and drew conclusions related to the two RQs.

Concluding

Finally, Yin (2016) discussed the concluding phase as being able to make overarching statements and make inferences based on the interpretations of the data. In this phase, I made connections to both RQs and discussed the greater significance of the findings. This section was written in a narrative format and restated the results of the study and findings.

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Trustworthiness

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Trustworthiness is imperative in all research, qualitative or quantitative, and can be used during different stages of the data collection and analysis process. For qualitative research in particular, care is taken to ensure that the study is valid and that the reader can have confidence in the information presented and overall results ((Ravitch & Carl, 2019). Some of these methods during data collection are member checking, reflexivity, and

using secondary and expert reviewers to check for all potential biases in data collection or analysis.

Credibility

Credibility in qualitative research is like internal validity in quantitative research, and is the researcher's ability to all complexities that present themselves into account and to deal with other patterns in the data that are not easily explained or interpreted ((Ravitch & Carl, 2019). The credibility is this study was considered by making sure that the interview questions developed on the interview protocol allow for prompts and probes can be used to elicit plentiful data. All participants were able to review the data collected during the interview process for completeness and correctness through a system called member checking. Member checking is a way for participants to ensure the accurateness of the transcription and direct quotations and provide validity to the data collected ((Ravitch & Carl, 2019). Also, reflexive journaling throughout the data collection and data analysis process demonstrates transparency in the researcher's decisions and reactions, can help to reveal assumptions or biases and further add to the credibility of the study (Karagiozis, 2018). This study used secondary reviewers of the data collected and thematic coding process to provide additional internal validity of the data and findings.

Transferability

In qualitative research, transferability can be compared to the concept of external validity in quantitative research. Transferability is the way that qualitative studies can be applicable to broader contexts while maintaining the richness of the concept-specific findings ((Ravitch & Carl, 2019), sometimes also viewed as generalizability. One way to

achieve this in qualitative research is how the participants and data collected are representative of the larger population being studied. For this research study, the recruitment of potential participants was conducted through online professional platforms and social media to recruit early childhood providers from different backgrounds and areas of the United States, not just from a single program or smaller geographical location. All participants had the commonality of their professional experience of working with infants and toddlers with special needs, their current occupation, and other important aspects of the inclusion criteria. In addition, by having detailed descriptions of the data collected and the contexts of the experiences of the participants allowed the researcher and readers of the study to make comparisons to other contexts based on as much information as possible ((Ravitch & Carl, 2019).

Dependability

Dependability in qualitative research refers to the stability of the data collected and the consistency of the results over time ((Ravitch & Carl, 2019). This is comparable to the reliability in quantitative research, and can be achieved through a solid research design. By outlining each step of the data collection and analysis of the process throughout this study, an outside reader can follow the collection of the data and the ultimate findings by the researcher.

Confirmability

Qualitative researchers will always have some of their own personal biases and assumptions related to their RQs and how they are interpreting the data that they are collecting. Confirmability refers to the balance between being objective about the

research study and data collected and understanding the inevitable biases that will exist in qualitative research (Ravitch & Carl, 2019). Reflexive journaling is one way for qualitative researchers to challenge their own personal biases and assumptions in systematic and ongoing ways throughout all stages of the research process. In this study, I used reflexive journaling at the conclusion of each interview, after the completion of each transcription, and throughout each phase of the analysis process. I used this journaling process to examine my personal responses to the data to explore the way that possible biases and experiences may color my interpretations of the data.

Ethical Procedures

The design of this research study was a qualitative study where information was collected directly from individuals using semistructured interviews. The data collection started after I received approval from Walden University IRB on April 28, 2023. The IRB approval number was 04-28-23-1059805. I informed each potential participant of their rights as study participants, provided them with the confidentiality protocol, and obtained written informed consent from everyone in the research study. Participants were informed that they may withdraw from the study at any time. I notified all potential participants of the steps that were taken related to security and confidentiality throughout the entire data collection, analysis, and reporting processes. Any personal or identifiable information about participants were not captured in this study, and alphanumeric codes were used for all participants. I stored and secured all electronic information collected in my home office on a password-protected computer. Any non-electronic information obtained pertaining to this study were kept in a locked drawer in my home office, which only I was

able to access. Collected information will be stored securely for 5 years, after which I will shred all paper data and permanently delete all data stored electronically, per Walden IRB policy. In addition, to ensure the integrity of this study, I followed all steps to obtain IRB approval from Walden University before beginning any form of participant recruitment or selection.

Summary

Chapter 3 included the research methodology and rationale for using a qualitative, instrumental case study design approach. The purpose of this study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need, to support infants and toddlers with special needs in inclusive settings. In this chapter, I reviewed the RQs and detailed information regarding my role as a researcher. I also included participant selection criteria, instrumentation, recruitment, data collection information, and the proposed data analysis plan. Lastly, Chapter 3 concluded with a review of how the issues of trustworthiness and ethical procedures for this study will be addressed. In Chapter 4, I present the results of the data analysis and discuss themes that emerged from the data.

Chapter 4: Results

The purpose of this qualitative study was to explore the experiences and perspectives of early childhood providers related to PD opportunities and working with infants and toddlers with special needs. In Chapter 4, I present results as well as the data collection and analysis process, and evidence of trustworthiness before a concluding summary.

The RQs were as follows:

RQ1: What training do early childhood providers report they have had to support infants and toddlers with special needs in inclusive classroom settings?

RQ2: What training do early childhood providers perceive they need to support infants and toddlers with special needs in inclusive classroom settings?

In this chapter, I describe the setting of the study, participant demographics, data collection processes, interview conditions, evidence of trustworthiness, and the study findings. I then conclude Chapter 4 with a summary.

Setting

I conducted all participant interviews using Zoom ™ videoconferencing software due to the national scope of the study. I recruited participants nationally through LinkedIn ™ and Facebook ™ groups targeted to early childhood providers and administrators. A SurveyMonkey ™ prescreener link was provided on the LinkedIn ™ and Facebook ™ group posts, and candidates completed a brief questionnaire to indicate their interest in participating in the study to ensure that they met the study's participant criteria and to provide preferred contact information. After filtering the prescreener data to identify

participants who indicated that they met the study's participant criteria, I contacted

participants via email and scheduled a Zoom ™ meeting at their convenience.

Participants provided consent verbally during the interview. The interviews were

conducted using the 18-question semistructured interview protocol, which was aligned

with the RQs. Participants indicated they engaged in the interview from either their

homes or offices, and all recorded interviews lasted between 30 and 50 minutes.

Demographics

I completed a total of six semistructured interviews with early childhood

providers who met the inclusion criteria for participants. All interviews were conducted

via Zoom ™ and were audio-recorded and transcribed into a Word document. The

interviews all lasted between 20 and 45 minutes, depending on the participant. All

participants were assigned a random number between 201 and 210, and their recordings

and transcriptions are only labeled under those research numbers. Both the audio

recordings and transcriptions were saved to my personal computer and to a separate flash

drive and were saved in password-protected documents. Table 1 shows the participant

pseudonyms and the participant inclusion criteria.

Table 1

Participant Pseudonyms and Eligibility Criteria

Pseudonyms	Early childhood provider	Experience with infants and toddler with special needs or diverse learners	Attended PD related to students with special needs or diverse learners	Current role in early childhood program
P201	Yes	Yes	Yes	Family childcare provider
P202	Yes	Yes	Yes	Center-based provider, toddlers
P203	Yes	Yes	Yes	Family childcare provider
P204	Yes	Yes	Yes	Center-based provider, toddlers
P206	Yes	Yes	Yes	Center-based provider, toddlers
P208	Yes	Yes	Yes	Center-based provider, toddlers

Data Collection

The data collection started after I received approval from Walden University IRB on April 28, 2023. The data collection process began on May 11, 2023, with the creation of a research participant flyer and demographic survey on the online platform Survey Monkey. For this qualitative study, I used purposeful sampling of early childhood providers through the United States by posting the recruitment flyer on social media and online professional platforms. The recruitment flyer listed the participation criteria as well as my contact information for participants to use to contact me with questions. It also provided a link and QR code directing potential participants to the online survey. The online survey began with a description and purpose of the study and links to the approved consent form. Once interested participants checked off their consent to participate through this survey, they were directed to answer questions about their demographic information and participant criteria to ensure that they were eligible to

participate. Once all this information was gathered, the interested participants submitted the completed survey. Only potential participants who completed the consent form and survey completely, and whose answers demonstrated that they matched the participant inclusion criteria were contacted.

I contacted potential participants to schedule an interview over a virtual platform that would allow for audio recording. In total, there were 46 participants who completed the consent form and demographic screening survey. Of those potential participants, I contacted 24 interested participants whose survey answers met the study eligibility criteria. Of that group, 12 participants scheduled virtual interviews as the other half of potential participants either did not respond to requests for scheduling and were lost to follow up or were deemed ineligible to participate with additional information gathered in email communication. Of the 12 scheduled interviews, three potential participants no-showed at their scheduled interview and did not reply to follow-up attempts to reschedule the interview. In addition, another three potential participants began their virtual interviews but did not complete the interview because I discerned that the participant did not meet eligibility criteria or was determined to be an imposter during the initial questions during the interview.

The duration of the interviews ranged from 20 minutes to 45 minutes, with an average of 28 minutes. Table 2 provides the interview length for each participant.

Table 2

Length of Interview by Participant

Participant	Length of interview
P201	26 minutes
P202	45 minutes
P203	27 minutes
P204	25 minutes
P206	20 minutes
P208	25 minutes

I followed the semistructured interview protocol that I developed based on the conceptual framework during my proposal writing process. Because the interview was semistructured, all participants were asked the same questions, but then additional questions were added in each interview for clarification to gain more information or to better understand specific experiences or examples that the participants discussed. To ensure alignment between the RQs and interview questions, I created a matrix to develop and identify questions that would yield study-relevant responses from participants, as informed by Castillo-Montoya (2016). Prior to conducting any interviews, the doctoral committee vetted the interview questions, and questions were adjusted based on the feedback provided. The 18 questions in the interview protocol were followed with additional probes, in which participants were asked to elaborate or provide an example of their initial response (see Billups, 2019). Table 3 is a crosswalk of the semistructured interview questions and their direct connection to the conceptual framework of the whole teacher approach.

Table 3

Crosswalk of Conceptual Framework Elements and Interview Protocol

Research question	Conceptual framework element	Interview question	Probe question
RQ1	PD should promote the attitudes of providers in the field	How do you feel about inclusive settings for infants and toddlers with special needs?	
RQ1	Promoting beliefs	What were your initial feelings about working with this child and family?	Did they change at all during your time working with them?
RQ1	Promoting self-efficacy and confidence	Explain your confidence in being able to work with that infant or toddler.	How did this training change any of your attitudes about working with children with special needs?
RQ2		What are some topics of trainings/PD that would be helpful for you in the future to build your confidence for working with infants and toddlers with special needs?	What helps to build your confidence?
RQ1	PD should focus on developing the knowledge base and skill set of providers	What knowledge did you have about that delay or disability prior to working with the child and family?	What specific strategies, skills or knowledge did you gain from that training?
RQ2	Promoting content knowledge	What topics or areas of interest would be the most helpful for to learn more about working with infants and toddlers with special needs?	What have you learned from trainings you attended? From working with children?
RQ1	Promoting instructional methods	What kinds of information and strategies did that training provide you with?	How have you used these skills and practices in your classroom with other children?
RQ1	PD should focus on promoting changes to classroom practices	Were you able to bring any of this knowledge or any of these strategies directly into your classroom?	What did that look like?
RQ1	PD should be multidimensional	What was the format of the training?	What did you like or dislike about the format? What would have been more helpful to you?
RQ2		What training formats help you learn?	
RQ2	PD should be integrated	What is the best format for you as an early childhood provider to learn both knowledge and practices that you can directly use in your classroom settings?	

Research question	Conceptual framework element	Interview question	Probe question
RQ1	PD should be domain-specific	What do you think has the biggest effect on how a provider can work with a child with developmental delays or special needs: their classroom practices, their knowledge base, their strategies/skill sets, or their attitudes and beliefs? Tell me about a professional development training that you participated in related to working with children with diverse needs, developmental delays or special needs? What was the main topic or content area of that training? How many trainings have you participated in related to working with infants and toddlers with special needs?	Why do you feel that? Please give some examples. Was the topic or training specific to working with infants and toddlers or a broader age range? Do they address a specific population or more generalized, i.e. children with ASD?
RQ1 RQ2	PD should match needs, interests and educations levels of providers	What is your educational background? How best do you learn skills as a teacher? How do you like to be supported in the classroom?	How can training best support you based your current experiences and education? How do you want to be supervised in the future when working with children with special needs?

During each interview, I took field notes of the participant responses, noted additional probe questions I wanted to ask and connections that I was making to the RQs (see Yin, 2015). In addition, I engaged in reflexive journaling at the conclusion of each interview and during each stage of the data analysis process. This reflexive journaling allowed me to continue making connections between participant responses, reflect on my own interpretations of their answers, and recognize any biases or decisions that I was finding throughout the process (see Karagiozis, 2018). At the conclusion of each interview, I thanked each participant in person, then followed up with an additional email thanking them for their time and a small gift card provided for their participation. I also engaged in member checking, where I sent complete transcripts to all participants to allow participants to review their interview transcriptions and check for accuracy (see Ravitch & Carl, 2019). I informed each participant that I would also be following up with a draft summary of the findings of the study for member checking.

Data Analysis

Qualitative content analysis was used to analyze the raw data from this study. Qualitative content analysis is a scientific method that increases the researcher's understanding of the phenomenon (Saldana, 2021; Yin, 2015). This method also affords the researcher a standardized procedure, establishing accuracy, replicability, and validity in qualitative research (Yin, 2015). In this data analysis process, I used Yin's five phases of data analysis and used content analysis approach to conduct the iterative data analysis process. To further ground the process of qualitative content analysis as a qualitative data analysis practice informed by research, each step of qualitative content analysis was

aligned with the compiling, disassembling, reassembling, interpreting, and concluding process that Yin (2016) described as the five phases of data analysis. The application of the components of qualitative content analysis are detailed below.

Coding Strategy

The data analysis process unfolded in the following order: transcribing the interviews, organizing the data, coding the information, generating themes, reviewing the themes, creating names for the themes, and writing the complete findings. In the coding process, I employed both a priori coding, a form of deductive coding, and open coding, a form of inductive coding (see Baskarada, 2014). The a priori codes came from the literature and conceptual framework, and the open codes were induced from interpretations of the raw data.

Compiling

I transcribed the interviews by listening to the audio recordings of each interview and reprinting and typing them verbatim into a word document. The process of transcription and rereading for accuracy and completeness allowed me to become familiar with the data. After completing all my interviews, I began to organize the transcribed data into a useful order (see Yin, 2015). In the first step, to organize the data, I used a Microsoft Excel spreadsheet to copy and paste direct quotes or text excerpts from the interviews and my field notes. This information was manually organized into a Microsoft Excel spreadsheet with several workbooks reflecting the pivot tables following the steps described in the data analysis.

Disassembling

The second phase of this data analysis system involves breaking down the data into even smaller pieces based on codes, labels, or common vocabulary (Yin, 2015). I began my coding with a priori coding, using codes and ideas from the conceptual framework of the whole teacher approach, as well as other key codes from the literature review. During this stage of coding, I searched through the data for repeated words, phrases, and concepts that aligned with the a priori codes. I used a total of 10 a priori codes to assign to all the text excerpts of raw data pulled directly from the interview transcriptions based on the literature: knowledge/skills, beliefs, confidence/self-efficacy, classroom practices, domain-specific, integrated, multidimensional, inclusion, resources, professional identity. These codes came from not only the whole teacher approach but also information from the literature about how educators and providers relate to inclusion, their feelings of self-confidence, and their own identity as an educator. Table 4 outlines the a priori code definitions taken from the literature and conceptual framework.

Table 4

A Priori Code Definitions Derived From Whole Teacher Approach

A priori code	Definition
Knowledge/skills	The whole teacher approach looks at content knowledge, instructional methods and understanding child development and learning differences (Chen & McCray, 2012). Also called: Pedagogical content knowledge. Skills can be seen as strategies or instructional methods.
Beliefs	Teacher's decisions and judgements about instruction may be more based on their own beliefs on a topic instead of direct professional knowledge (Shavelson, 1983).
Confidence/self-efficacy	"The belief in one's capacity to organize and execute the course of action required to manage prospective situations" (Bandura & Adams, 1977). For teachers, this is understanding that they have the power to teach in a way that meets the needs of the students. A feeling of self-assurance arising from one's appreciation of one's own abilities or qualities.
Classroom practices	PD can influence educators that make changes to their practices, and then they are engaging in both knowledge-construction and knowledge-internalization processes. This involves implementation and practical implementation of new strategies or practices in the classroom.
Domain-specific	The training that is specific to one domain or content area provide a better basis for building knowledge and learning strategies (Merriënboer & Kirschner, 2017) and are aimed for a certain teacher population.
Professional identity	Professional teacher identity has been seen as the conception of the teacher of their own self and their role in learning, and can be formed and re-formed over time through a variety of experiences (Beijaard et al, 2004).
Multidimensional	Multidimensional PD programs offer various ways for the participants to learn the content, accommodate different teaching/learning styles and target teaching attitudes (Chen & McCray, 2012).
Integrated	Integrated PD programs ensure that all teaching and support are addressed simultaneously (knowledge, practices, attitudes) and are influenced by each other. (Chen & McCray, 2012).
Inclusion	Leaders in early childhood understand the role of PD to support these early childcare providers and the role of staff development in creating high-quality inclusive environments (Ackah-Jnr, 2020).
Resources	Additional supports to professional development opportunities, including supervision, co-treating, teaming with providers or families, collaboration, outside resources and agencies.

Table 5 shows the a priori codes and a sampling of the raw data text excerpts for

each code.

Table 5

Sampling of A Priori Codes and Text Excerpts by Participants

Participant	Text excerpt	a priori code	Research question
208	Your education background helps you to acknowledge and see or overlook something. I think it helps you get to where you are…It just helps you help each student in your classroom regardless of who they are.	Knowledge/Skills	RQ1
202	I think the value of a 'can-do' and a positive attitude in this population is huge. It can be very sensitive for these families and comparing their kiddos to typically developing kiddos and just really being that champion and being positive and finding opportunities to measure growth.	Beliefs	RQ1
201	So that made me 50-50 confident. And I know I have the good mindset of doing and trying new things. And the big thing was working along with the professionals. And then I thought, Ok I can do this. So that was as high as my confidence was.	Confidence/Self-Efficacy	RQ1
204	One that has really helped me is calming myself down before I can calm the child down. Taking a step back and collecting myself before I then calm them down…That's one strategy I've done. I would more of that.	Classroom practices	RQ2
206	If there were just specific fine motor development training or a gross motor development training, maybe speech, because a lot of the trainings try to hit every aspect.	Domain-specific	RQ2
201	I did not start in this field because I was a teacher or I just finished my bachelor's in early childhood education. Nothing. Nothing. All I knew is that I just had a great love in my heart for kids and I want to know more.	Professional identity	RQ2
206	There were some smaller groups that she broke down for scenarios around the room and we had to kind of work through that and how we would handle that in terms of teachers in the classroom. It was kind of a power point slash get up and move training.	Multidimensional	RQ1
206	And it was focused on just behavioral and challenging behaviors. And she talked a lot about some kids will act out…they're trying to fulfill something, like a need, or a sensory thing, or get your attention. She talked a lot about how to identify what that child is actually trying to say and how best to meet their needs in the group setting.	Integrated	RQ1
201	Every child is different. Make accommodation in your program for that child. During the time of getting to know a child, in my program, regardless of disability or not, every child has something that they identify with.	Inclusion	RQ1
203	I wish that early intervention, the specialists, could come to daycare. It's kind of hard, and I understand that the parents want to be home, be a part of it. But even if they could do maybe every other visit here or they could work something out at least once that the specialists can see what's going on and if they have any tips.	Resources	RQ2

Table 6 shows the 10 a priori codes based on the conceptual framework with the count of raw data text excerpts by a priori code.

Table 6

A Priori Codes and Count of a Priori Text Excerpts by Code

A priori code	Count of interview raw data text excerpts
Beliefs	
Classroom practices	48
Confidence and self-	34
efficacy	48
Domain-specific	30
Inclusion	26
Integrated	23
Knowledge/skills	40
Multidimensional	48
Professional identity	18
Resources	58
Grand total	373

The second stage of the coding process was open coding the data to better align with my two RQs. The open coding process was an inductive process, where the codes came directly from interpretation of concepts from the raw data (Yin, 2015). The first RQ focused on the experiences that early childhood providers describe they have had, and the second RQ focused on the experiences and training that they perceive that they need. Therefore, I created open codes that related to the two areas that corresponded to the RQ containing early childhood provider's experiences and perceptions. In addition, I also included an area of open coding related to 'changes' in knowledge, practices, and confidence. I wanted to better understand not only what data aligned with specific PD they had experienced and what they perceived that they needed, but also what PD and experiences influenced them and helped them make changes regarding how they were working with infants and toddlers. Table 7 shows the open descriptive codes from Round

1 of open descriptive coding and the count of the raw data text excerpts for each open

code. I identified 14 codes in the open coding process.

Table 7

Open Descriptive Round 1 Codes and Count of Raw Text

Open descriptive coding Round 1 codes	Count of interview raw data text excerpt
Changes; beliefs	28
Changes; classroom practices	36
Changes; confidence/self-efficacy	23
Changes; knowledge/skills	40
Experiences; beliefs	15
Experiences; collaboration/support	36
Experiences; confidence/self-efficacy	23
Experiences; I/T with special needs	6
Experiences; multidimensional	26
Experiences; PD	16
Experiences; PD for I/T with special needs	10
Perceive; collaboration/support	38
Perceive; multidimensional	12
Perceive; PD for I/T with special needs	64
Grand total	**373**

Table 8 shows a sampling of raw text excerpts by participant for the Round 1 of

open coding, also organized by the RQ that was being addressed in that data. Following

the identification of the 14 open codes, I identified a total of six categories from the open

codes identified related to RQ1 and RQ2.

Table 8

Sampling of Round 1 Codes and Text Excerpts by Participant

Participant	Text excerpt	Open descriptive Round 1 code	Research question
201	Sometimes we get pretty close-minded because of lack of knowledge. But then when we receive that knowledge you kind of change.	Changes; Beliefs	RQ1
202	And it was super applicable to our classroom because…we were also able to get continuing ed credit to create a project, but the project was literally like implementing the strategies in the classroom and rearranging the environment and creating materials and creating visuals and creating schedules.	Changes; Classroom practices	RQ1
208	And, they also don't know that if they find the help, that they are perfectly capable of being a good teacher for that student, they just don't have the knowledge or understanding yet that they need.	Changes; Confidence/Self-efficacy	RQ2
204	What really helped me was the environment can affect the child's behavior. And how rearranging the environment may help their behavior but also could make their behavior worse.	Changes; Knowledge/Skills	RQ1
203	I think just the importance of patience. Patience…not just with him but with all of the children and the dynamic of the group.	Experiences; Beliefs	RQ1
206	I very much relied on the parents to kind of guide and give feedback on where they wanted their child to be or where their child was and how that has gone in the past. And what we could do in the classroom to help support that child going forward.	Experiences; Collaboration/support	RQ1
204	And I feel like sometimes that can ruin my confidence. If I say the wrong thing I don't want them to get upset. I'm trying to work on that - building more confidence on speaking with the parents that I suspect their child could have a delay…my confidence can be better, it's something that I can always improve on.	Experiences; Confidence/Self-efficacy	RQ1
201	I've had a child who's had, what I believe is called, Peter's anomaly, this is a vision problem. I've had a child with speech problems, I just can't remember the name of it, but just speech problems. I've also had two children with autism.	Experiences; I/T with special needs	RQ1
208	It was a lecture. It was a large group, there were about a hundred providers and teachers there. And there were 4 presenters. They went around and we played round robin with questions and they did some role plays.	Experiences; Multidimensional	RQ1
203	The online ones I've been doing are individual. There's a lot of reading, videos that you have to watch. You can't go on to the next section until you've watched the videos…there's little sections in between. You have to pass this test before you can go onto the next.	Experiences; PD	RQ1
206	During my CDA process I've definitely taken some courses specialized in inclusive classrooms and developmental milestones and things to look for.	Experiences; PD for I/T with special needs	RQ1
204	I wish that there was someone in the daycare all of the time that could help more. Someone who specializes in someone with autism or having like speech pathologists in the center. I wish we could have that, but it's realistically not going to happen.	Perceive; Collaboration/support	RQ2

Participant	Text excerpt	Open descriptive Round 1 code	Research question
206	I like the in-person because you can ask questions and get clarification. You can give her real life scenarios of what we've had here. And then she walks us through. Online I feel it's just very informal, and it's just really cut and dry.	Perceive; Multidimensional	RQ2
203	If I knew ahead of time that somebody was coming in with a special need, any advanced trainings or stuff that I could do ahead of time would be great.	Perceive; PD for I/T with special needs	RQ2

Reassembling

The third stage of my data analysis process was to create categories based on the trends and patterns of the a priori and open coding that directly corresponded to the two RQs. The disassembling and reassembling phases happened cyclically, and I needed to go back and forth to reorganize the data as different themes and patterns were emerging in analysis. I found three distinct categories or themes for each RQ based on the data I had been organizing and coding. After finding wording for those six distinct categories, I went back into the open coding process and reviewed and re-coded some data to better understand how it fit into the themes that were presenting themselves. This process was part of the reassembling and interpreting stages of my data analysis (Yin, 2015), and allowed me to revisit the data multiple times to continue to find new meaning and better interpret the findings. The process of moving between phases two and three of this process better protects against possible biases and initial judgements, and allow for reflection when examining the patterns in the data (Baskarada, 2014). Table 9 shows the count of how the open codes broke down into the 3 different categories associated with the first RQ about early childhood provider experiences. I identified three categories for the open codes identified related to RQ1.

Table 9

Categories in RQ1 to Open Descriptive Codes and Count of Text Excerpts

Category number	Category	Round 1 open code	Count of raw text data
1	Format of PD	Changes; classroom practices	5
		Changes; knowledge/skills	3
		Experiences; collaboration/support	1
		Experiences; confidence/self-efficacy	1
		Experiences; multidimensional	20
		Experiences; PD	9
		Experiences; PD for I/T with special needs	8
2	Collaboration with families and colleagues	Changes; beliefs	2
		Changes; classroom practices	1
		Changes; confidence/self-efficacy	1
		Changes; knowledge/skills	1
		Experiences; beliefs	1
		Experiences; collaboration/support	30
		Experiences; confidence/self-efficacy	8
		Experiences; multidimensional	4
		Experiences; PD	4
		Experiences; PD for I/T with special needs	1
3	Change in beliefs to change confidence	Changes; beliefs	24
		Changes; classroom practices	1
		Changes; confidence/self-efficacy	14
		Changes; knowledge/skills	14
		Experiences; beliefs	14
		Experiences; collaboration/support	5
		Experiences; Confidence/self-efficacy	14
		Experiences; I/T with special needs	4
		Experiences; multidimensional	2
		Experiences; PD	2

I grouped these Round 2 Codes into three categories g that reflect the different experiences that providers describe having regarding PD for infants and toddlers with special needs. These categories include their experiences with varying formats of PD, their past collaboration with colleagues, specialists, and families, and how PD has changed their attitudes and confidence. Table 10 shows the Round 1 open descriptive codes and how they were collapsed into categories for RQ 2. The frequency count of the

raw text data excerpts coded to each Round 1 code are also depicted about early childhood provider perceptions. I identified three categories for the open codes identified related to RQ 2.

Table 10

Categories in RQ2 to Open Descriptive Codes and Count of Text Excerpts

Category number	Category	Round 1 open code	Count of raw text data
4	Ongoing, systemic content related to special needs		
		Changes; beliefs	1
		Changes; classroom practices	7
		Changes; confidence/self-efficacy	4
		Changes; knowledge/skills	14
		Perceive; collaboration/support	5
		Perceive; multidimensional	7
		Perceive; PD for I/T with special needs	55
5	Technical support and collegial collaboration	Changes; classroom practices	2
		Changes; confidence/self-efficacy	1
		Changes; knowledge/skills	1
		Perceive; collaboration/support	29
		Perceive; multidimensional	3
		Perceive; PD for I/T with special needs	1
6	Factors influencing adoption	Changes; beliefs	1
		Changes; classroom practices	20
		Changes; confidence/self-efficacy	3
		Changes; knowledge/skills	7
		Perceive; collaboration/support	4
		Perceive; multidimensional	2
		Perceive; PD for I/T with special needs	12

These three categories signify the perceptions that early childhood providers have regarding their needs around effective PD to work with infants and toddlers with special needs, including more content on inclusion, supervisory support and collaboration with colleagues, and how different factors of PD can affect changes to their practice.

Interpreting

In the next stage of data analysis and reconfiguration, I used the six categories of data to create analytic themes that encapsulated the findings of the data and alignment to the RQs. These six themes are divided amongst the two RQs, looking at the experiences of early childhood providers and their perceptions of their needs, and correspond with the category numbers. I actively constructed these themes through combining, clustering, and reflecting on the many rounds of coding and examinations of the raw data. Table 11 shows how the count of the raw data was coded for each of the six themes.

Table 11

Themes and Count of Coded Text by Theme

Theme number	Themes	Count of text coded to theme
1	Early childhood providers describe varied PD experiences and opportunities support infants and toddlers with special needs in inclusive classroom settings	65
2	Early childhood providers rely on families, colleagues, and other professionals to provide knowledge, support and fill gaps in ongoing PD needs	48
3	Early childhood providers experience that effective PD changes attitudes, beliefs and sense of self-efficacy in serving infants and toddlers with special needs in inclusive classroom settings	99
4	Early childhood providers describe needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings	99
5	Early childhood providers perceive they need direct supervision and strengthened systems of collegial collaboration to meet the needs of students with special needs served in inclusive classroom settings	14
6	Early childhood providers describe personal and teaching experiences, PD design and content, and their influence on supporting adoption of strategies and practices to support students with special needs served in inclusive classroom settings	48
	Grand total	**373**

These six themes are further explored below in the results section, including their connection to the RQs around the experiences and perspectives of early childhood providers, and examples from the participants.

Throughout the analysis process, I kept an audit trail to confirm the dependability of the study that included all the steps of the research process. This included, but was not limited to, participant selection and sampling procedures, data collection methods and data analysis procedures. In addition, I also used reflexive journaling in every stage of the data collection and analysis process to note my initial feelings, limit my reactive biases and document the steps of the research process.

Concluding

Yin (2016) discussed the concluding phase as being able to make overarching statements and make inferences based on the interpretations of the data. In this phase, I made connections between all six themes to both RQs and discussed the greater significance of the findings for early childhood providers. This section was written in a narrative format and restated the results of the study and findings.

<div align="center">

Results

</div>

The problem that was addressed through this study is that there is insufficient PD training for early childhood providers working with infants and toddlers with special needs in inclusive settings. The purpose of this study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need, to support infants and toddlers with special needs in inclusive settings. The semistructured interview questions were developed based on the

conceptual framework of the whole teacher approach. I interviewed six early childhood providers who were aged 21 or older at the time of their enrollment in the study and were early childhood providers who are currently working in an infant classroom, toddler classroom, mixed-age classroom or home-based childcare program and have experience in one of these settings for more than 2 years. Participants also have had to attended or participated in a PD training in the past 5 years that addresses any aspect of working with infants and toddlers with special needs or diverse learners. Finally, I recruited participants who identified as having worked with an infant and toddler either developmental delays or special needs in the last 5 years as well to ensure that they had professional experiences to draw from. The interview protocol was aligned to two RQs and the conceptual framework of the whole teacher approach. Participants self-selected into the study and I confirmed each participant met the participant inclusion criteria. This basic qualitative study included two RQs, focused on exploring the experiences and perspectives of early childhood providers. The RQs were as follows:

RQ1: What training do early childhood providers report they have had to support infants and toddlers with special needs in inclusive classroom settings?

RQ2: What training do early childhood providers perceive they need to support infants and toddlers with special needs in inclusive classroom settings?

Based on these data, six themes emerged from both RQs regarding the experiences and perceptions of early childhood providers. Three themes emerged for RQ1 and three themes emerged for RQ2. Table 12 reflects the alignment between the RQs and themes.

Table 12

Themes Headlines and Theme Alignment With Research Questions

RQ	Theme	Themes	Theme headline
1	Theme 1	Early childhood providers describe varied PD experiences and opportunities support infants and toddlers with special needs in inclusive classroom settings	Format of PD
1	Theme 2	Early childhood providers rely on families, colleagues, and other professionals to provide knowledge, support and fill gaps in ongoing PD needs	Collaboration with families and colleagues
1	Theme 3	Early childhood providers perceive that effective PD changes attitudes, beliefs and sense of self-efficacy in serving infants and toddlers with special needs in inclusive classroom settings	Change in beliefs to change confidence
2	Theme 4	Early childhood providers describe needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings	Ongoing, systemic content related to special needs
2	Theme 5	Early childhood providers perceive they need direct supervision and strengthened systems of collegial collaboration to meet the needs of students with special needs served in inclusive classroom settings	Technical support and collegial collaboration
2	Theme 6	Early childhood providers describe personal and teaching experiences, PD design and content, and their influence on supporting adoption of strategies and practices to support students with special needs served in inclusive classroom settings	Factors influencing adoption

In this chapter, I describe the themes in detail. In the next section, I discuss the themes for RQ1. I provide text excerpts and analysis for support of each theme. Next, I will review the themes for RQ2.

RQ1

Theme 1: Format of PD

Theme 1 is that each participant explains different ways that they receive PD and continuing education in the field of early childhood. All the participants address the

different pros and cons of the varying formats of PD that they experience and describe

connections between the PD delivery to their own learning styles. Participants describe

trainings as being online and in-person, as well as other differences to delivery format.

They also address how these PD opportunities present in multidimensional formats and

the different impacts to how they can integrate the information due to the delivery.

All participants describe varied delivery formats for PD attended to support

infants and toddlers with special needs in inclusive settings. One format of PD that is

recurring in the data are one-time, lecture-based workshops, which remain one of the

most common forms of PD delivery for education. All participants describe different

formats for these one-time workshops, such as being hosted by their own programs where

a visiting consultant or lecturer would come in once and present to the staff, and part of a

conference-style event where there were multiple topics they attend during the day. All

participants also discuss workshops that providers attend either hosted by larger PD

organizations, by the departments of early education at the state level, or institutes of

higher education on their own.

Even though one-time, lecture-based workshops are the most discussed PD format

for all participants, participants discuss fewer positive responses to learning new

information in this way and the delivery of the content. According to P202, one training

on an infant and toddlers assessment tool is "very much a lecture...But it was super dry.

Not a lot of opportunity to participate." Other participants share similar experiences of

this lecture-format workshop and their ability to connect to the material. P203 described

some of these one-time trainings that she attended as "not as great as they could be. It is

kind of just the same stuff over and over, kind of repetitive." She also talked about the

information shared as being "kind of reminder," pointing to the lack of new and novel

strategies that they are learning in these sessions. Participants 201, 202, 203 and 208 all

mentioned the format of the one-time 2-hour workshop model as being the most

challenging to be able to adopt knowledge and strategies from.

Despite the challenges around short, one-time workshops that are discussed by the

participants, they also share the benefits of being in a classroom setting and being able to

interact face-to-face with the facilitator over content shared in an online or virtual format.

For example, P204 explained that

> It was also nice to be in a class setting because then you're focusing just on the
>
> class, and when you're at home, you get distracted really easily. In a class setting,
>
> you just can focus more on what you're working on and not thinking about
>
> everything else at home.

In addition to this ability to be present during in-person trainings, there are other

benefits that participants describe. P206 explained one such workshop that was hosted by

her center and personalized to the staff of the program:

> There was some smaller groups that she broke down like scenarios around the
>
> room and we had to kind of work through that and how we would handle that in
>
> terms of teachers in the classroom. So, it was kind of a power point / get up and
>
> move training.

P206 described the advantages of in-person training is also the ability to

individualize the sessions based on participant need. P206 explained, "I like the in-person

because you can ask questions and get clarification. And, you know, you can give her real life scenarios of what we've had here. And then she walks us through." P204 explained, "I like when someone can come in, sit with us and work with us, and have a group experience… Someone in the room really guiding us a bit more, it helps." P206 also explained how the PD facilitator divides the educators into smaller groups based on the development age of the children that they served. P206 remarked, "But she had those of that were infant/toddler working in separate areas than the preschooler ones. So, she gave us different scenarios than she gave the preschoolers." P206 described the way that the facilitator creates an interactive format that allows the participants to learn the content based on individual needs and addresses the specific population and age level of the students served.

Participants reported that face-to-face PD trainings also facilitate collaboration with colleagues. P203, P204, P206 and P208 described ways that in-person workshops and trainings provide more opportunities for this level of participation and time to connect. P208 described a training within a full-day conference: "They went around and we played like round robin with questions and they did some role plays. Certain people would go up front and role play about students." While P208 reported that this large group participation is meaningful, and the power of "hearing everyone's ideas," P208 also reported the large, conference-style format as a challenging environment for her own learning because of the amount of people and little to no access to smaller group activities. P208 continued, "I realized that I am just overwhelmed. So, that was not regulating for me…and what I didn't like about it was hearing everyone's ideas because

it became also so overwhelming at the same time." P202 described an in-person training with colleagues from her own school and program as being beneficial since they are learning the information as entire teaching team: "They came to our district level and were training us as like a team. So, it was early childhood specific, and they tried as hard as possible to get teams in the PD together." P208 also talked about PD opportunities that she attended along with her entire teaching staff and how the team learns from each other:

> I did have 7 peers with me from my program. So, certain people learned how to pick out, "this is what I'm going to do for my classroom," and "this is what I'm going to do for these students." I had one teacher that found something that she wanted to do in her classroom, and another group of people who were going to focus on choosing strategies for just these 2 students.

The participants discussed the impact of attending PD with their team and their colleagues, and the power of learning the same material together but in different ways.

All participants described their learning styles throughout the data and point to the importance of hands-on learning in their adult education process. P202 talked about a longer and more immersive in-person training where they learn about visual schedules and environments. In this PD, P202 explained that small groups work together "to set up a mock classroom. We had to create a visual schedule based on the profile of a kiddo." P202 went on to describe the benefits of this format for her own learning, including the ability to take more time practicing and engaging with the information that they were learning:

But I think for my learning too, when you actually are doing, that's the best. And when there's a permanent product to walk away with, that also is very helpful. It was a week long. And the first few days were a little more lecture but still hands-on. And everything we learned, essentially, we carried out.

P204 talked about her personal learning style as "more hands-on" when talking about positive experience with a face-to-face PD training. P208 discussed her learning style as "visually and to practice. To practice, to see it, to get in it…Just to experience it."

One of the rarer in-person PD experiences that participants described was access to longer and more immersive trainings that take places over days, weeks or months with the same content area. P202 had the opportunity for a week-long, in-person, immersion training as part of her center and district. P202 explained that her ideal format for learning new information would be "the week-long immersion. I mean I think that is unparallel so I don't know how much better, in my experience, I don't know how you can do it much better than that." P202 was the only participant who described access to PD hosted by her program at this in-depth level, but others talked about other learning opportunities that were longer than the one-time workshop model. P204 described a CDA course that she took on working with children with special needs that included online work, in-person meetings and direct supervision over a semester-long process:

It was online and we would meet like once a month or twice a month in class at University of Rhode Island. And the other days we would meet every month. It was either in person or online, which was nice and then there was one week where my professor came out to the center too, which was nice.

Few participants, only P202 and P204, described the opportunity for the participants of having one course or content area that was presented over multiple days and different formats to ensure better understanding and connection with the material.

However, all participants discussed accessing and attending PD through online workshops and virtual courses. All participants described both synchronous and asynchronous opportunities that they participate in and discussed the different benefits and challenges of the virtual sessions. This study was conducted in the several years after the COVID pandemic, where online and virtual trainings had become more commonplace for educators. Some of the benefits that participants discuss are convenience and the ability to come back to the information as needed, while some of the challenges involve the lack of hands-on practice and face-to-face connection with both colleagues and a facilitator.

All participants, when talking about virtual PD experiences, discuss benefits around convenience and scheduling. For example, P203 explained that

Online trainings are very easy to fit it in with our schedule. I don't have to take time off of work to do it. And I can go at my own pace. If I sign up for a training a few weeks in advance and then something comes up and I'm not able to attend with the kids or whatever, it's just easier to do it this way.

P204 described the convenience in a similar manner: "I actually liked it because it was…if we were sick, we would always be able to jump on or, like, my daughter was, like, sick I was able to come on the Zoom." P201 also had nothing but praise for the virtual trainings that she had participated in:

I absolutely love the Zoom trainings. It's just a way of me being able to get to

training without having to end at the end of the day, being tired and then driving

to a location. I love it, absolutely love it. And it was comfortable for me, because

like I said, I was able to get work in...So, yes, I have nothing that is a con about

the program. The trainings I have just praise for it.

All participants found advantages to PD opportunities that were virtual, especially when

considering that this required continuing education is usually expected to be completed

outside of an early childhood's providers working hours in a classroom.

Even within the format of online workshops, there are different ways that

facilitators are trying to utilize multidimensional aspects of learning to engage

participants. For example, P203 explained one benefit of online asynchronous trainings,

in that they can be more self-paced for the individual. P203 went on to say,

I do like the online training. They do give you the option of a book to buy if you

want. So, some of the classes, if I do a bigger class, I'll buy the book and follow

along with the book and just not the online training so I can go back and research

stuff. I can look stuff up…I do think that the online is best.

P203 also discussed how some of these self-paced workshops give you the option to

connect with the presenter and ask any follow-up questions:

They actually do have a group, almost like a chat room but not a chat room. Like

you log in, you can leave messages, you can ask questions, you can respond…I

think knowing that it's there if I needed it is helpful.

P203 continued to describe that she had never used this function, but that the existence of chat rooms and ways to connect is important to her. In addition, P201 talked about how live or synchronous online trainings also allow participants with colleagues and the content in different ways. P201 explained,

> [The online PD] was lecture and information and then we got about 5-10 minutes in breakout rooms. Whereby we can discuss [with the other participants] and it was a variety of professionals, licensed providers and coaches.

Those offering online PD have found ways to use breakout rooms within the online platforms to try and create the feel of breaking into smaller work groups or being able to connect and ask questions of the presenter.

However, some of the benefits and convenience and these online formats were also described as challenges for the participants who described themselves as more hands-on learners. P203 said, of her schedule, "I do like the in-person ones, it's just right now, it's hard to make it work." P204 explained, of online trainings, "Videos are nice, but sometimes you daze or sometimes you miss or you have to rewatch it all over again." All participants, except for P201, highlighted their preference for attending PD in-person based on their learning styles, but they still attended online and virtual PD widely because of the other benefits of scheduling and access.

The data showed that all participants had differing experiences with PD formats and did explain benefits and challenges for each option. They discussed the differences between in-person and online trainings, PD with small and large group activities, as well as other ways that presenters create interactive and multidimensional workshops. All

participants noted that they appreciated sessions that were individualized to their student populations and preferred sessions in which they could implement the new skill or knowledge they are learning. Participants reported they appreciated the flexibility of online/virtual sessions and also enjoyed differentiated activities that allowed them to collaborate and interact with colleagues about the specific students they teach.

Theme 2: Collaboration With Families and Colleagues

Theme 2 was that early childhood providers rely on families, colleagues and other professionals or specialists to provide support and to fill the gaps of continuing education needs for working with infants and toddlers with special needs. In early education, there is an importance placed on providers and educators building relationships with families. Providers are encouraged to see parents and caregivers as the first and most important teachers of infants and toddlers, and to use them as partners in caring for and educating young children. EI programs are encouraged to use family centered practice and a parent-coaching model where the provider serves as a consultant and the family becomes the expert on their own child. Parents are encouraged to become advocates for their child and to communicate all their concerns with the early childhood providers that they work with. Hence, it is not surprising that the theme of building relationships with families would come up when speaking to early childhood providers about some experiences that they have working with children. However, it is a surprising theme of this study that when providers are asked about their PD experiences and how they are learning to work with infants and toddlers with special needs, using the knowledge of families is often the first thing that they discuss.

Every participant in this study told stories about reaching out to a parent when there was a new child in their program with special needs or any developmental challenges. According to P204, "I would say whenever I have a concern, I try to reach a parent." The participants all explained that they were viewing the families as the foremost expert on how to work with their child. According to P202, "And that relationship is the biggest piece so I think the experience and opportunity to just spend time with the family prior to services even beginning, getting to know them, and knowing what their priorities are for their kids." The connection with families is more than understanding the child better but is often used as a replacement when the provider is lacking knowledge or experience. P203 described working with a toddler diagnosed with ASD in her program and how the family was "willing to discuss what was going on, and it made it much easier." When asked about how she learned how to work with a toddler with ASD in her program, P203 only spoke to accessing the information that the parents were giving her: "They would just really be open with different kinds of things that he needed. Things that weren't best for him. Things that kind of didn't work well for him. It really was just information from the parents."

> P206 also shared similar experiences with partnering with and relying on families. But I very much relied on the parents to kind of guide and give feedback on where they wanted their child to be or where their child was. And how that has gone in the past. And what we could do in the classroom to help support that child going forward.

P206 continued to say, in terms of her support systems for working with children with special needs, that "a lot of it has been parent knowledge." In addition, P202 explained why she utilized families for their knowledge because "they know their kid the best." The reliance on parents to be the owners of information about infants and toddlers with special needs, and the ones responsible for sharing information was a common theme when participants shared their experiences in a classroom.

In addition to accessing families, all participants also spoke about how they collaborate with and use the expertise of their colleagues and supervisors. The participants working in center-based or larger programs, P202, P204, P206, and P208, described accessing coworkers with more experiences when they were working with a child with special needs or a child with a challenge in the classroom. For example, P204 described, "I have the teachers in my room, other teachers in the building that might have more experience" when asked how she gets support when working with an infant or toddler with special needs. P208 relied on the team models of the other teachers for knowledge building and support: "I can say that I've gotten great at collaboration with the teams." P202 also noted, "It was definitely the support of other professionals on the team that really helped" when working with newer children in the classroom with special needs. Like any other challenge that a teacher may encounter in a classroom, participants in center-based used their coworkers for added support and collaboration.

In addition to teams and coworkers, participants also talked about the importance of accessing supervisors and mentors for support working with children with special needs. P204 said, "I'm always asking my [education coordinator] for help to try to figure

out what's best for the kids because it can be difficult." P204 described going to her coordinator for supervision in challenging classroom situations and when working with children with more needs. In the program that P208 worked in, there were coordinators who supported individual teachers and teaching pairs. P208 elaborated,

> We use our coordinators for support...once a month I make sure to process with her about children when I'm not sure which way to go, honesty. If I need any extra help, and if we have the extra eyes, our coordinators will come to see classrooms as well.

P202 described a slightly different experience of not feeling as supported by her supervisors and leaders to work with children with special needs, especially at the beginning of her career. P202 explained, "I definitely did not have the support I needed…it was a lot of learning on the fly." P202 clarified that she did not experience a lot of training or supervision in her first classroom experience, and that her mentors "don't give you the training necessarily that you need." P202 gave more positive experiences of peer and colleague collaboration than her experiences with supervisors. Similarly, P208 said that for newer staff in her program, they tend to access colleagues before accessing supervisors for help. P208 elaborated, "I mean, we do have coaches that do come out, but I think that we have 3 coaches covering all 9 or 10 local sites. [Teachers get support] mostly through their teams and coworkers, mainly through us." In addition to connecting with internal teaching teams, the participants in center-based programs described mentoring that they receive from direct supervisors to be successful with infants and toddlers with special needs.

This was a slightly different process for participants working in home-based programs, P201 and P203, who worked in alone in their family childcare programs. These early childhood providers did not have colleagues in their classrooms or programs to collaborate with, and they were the directors of their own home-based programs. These participants described different ways that they made connections within their network for support and collaboration. For example, P203 talked about using her childcare licensor as a support when there was a child presenting with more challenging behavior. P203 elaborated,

> I had reached out my licensor about it just to see what she could offer. And she said, she was like, 'there are so many resources and people are, providers, for whatever reason, are so afraid to reach out to ask for help. And I was like, yeah, we kind of are.

P203 described the process of meeting with the licensor over an online video chat and then getting additional in-person support. P203 described the process:

> First, we did a zoom meeting, went over everything. She came out, did an observation. She compiled all of her notes and all of the tips and tricks and then we had a follow-up zoom meeting…She did give me other things to work on or different things I could add to daycare. I really did like working with them.

Although P203 described an initial trepidation about using a licensor for this level of support, her positive experience spoke to ways providers can access support from their networks.

All participants also spoke about accessing support from specialists and resources outside of their programs. P201 explained the process of "working along with the professionals" in her area when supporting a child with a vision loss and chromosomal abnormality. P201 explained, "I am able to connect with the learned professionals or specialists in that area. And get the kind of support for my childcare program." P201 also discussed how she works with a regional program to support this child and family, and how specialists come and visit the child in her home-based program:

> And I was able to accommodate that. So, based on the little bit that I had prior to working with the child and working along with the professionals, it was very good support to me and it was something I can do.

P202 also talked about how she connected with outside specialists already working with the family to learn more about the child and his needs. P202 expounded, "I did a lot of co-treatment. You know, these kiddos, typically had really big teams. They had a special education teacher, an OT, they had a PT, they had speech." For infants and toddlers that are already diagnosed or receiving specialized services, many of the participants described experiences of collaboration with these specialized resources and being able to learn from their knowledge base and skill sets. P203 talked about working with a toddler with ASD who is receiving EI services that she never was able to connect with and those regrets. P203 said, "I really wish that I had spoken up and really asked for a visit to daycare." P203 talked about an inability to access those EI professionals for support, thus relying on the family to share information with her exclusively:

I wish that early intervention, like the specialists, could come to daycare. It's kind

of hard, and I understand that the parents want to be home, be a part of it. But

even if they could do like, maybe every other visit here or they could work

something out at least once that the specialists can see what's going on and if they

have any tips.

When children have a diagnosis or families that have already made connections with EI

and other specialists, providers can access these specialists for support and collaboration

if they know how to access those resources.

When early childhood providers were looking for more knowledge or skills to

work with infants or toddlers with special needs, they explained the importance of

collaboration as a first line of defense. Often before mentioning PD training, participants

described reliance on families and parents to give them the knowledge and strategies that

they need to work with their children. Although this process helps to build rapport and

relationships with families, it can also put undue burdens on families to be the owners

and distributors of this information. Families are being seen as the experts on their own

child, and providers are going to them first before accessing training and continuing

education. Participants also described accessing knowledge and support from colleagues,

supervisors, and outside specialists in their network for support working with children.

The success of this collaboration depends on access to experienced supervisors and

colleagues, specialists and doctors that may already be involved with a family, and if

providers know how to access these resources. Early childhood providers explained

experiences in collaboration and desires for more access to these interpersonal resources

to improve their knowledge and skills. The participants also described how their personal beliefs or attitudes about working with children with special needs are affected by PD and the implications for their self-efficacy in an inclusive classroom.

Theme 3: Change in Beliefs to Change Confidence

Theme 3 was how experiences with PD help to change attitudes and beliefs for providers, thus changing their own self-efficacy to work with infants and toddlers with special needs. One of the key aspects of the whole teacher approach is the ability of PD to directly impact the attitudes and beliefs of educators and be able to influence how they inherently feel about and understand the complexities of working with young children. Participants described many experiences with PD and the differing formats on their learning style, as discussed in Theme 1. The findings of Theme 1 did not encompass some of the content that participants experience in PD and how PD can impact beliefs and attitudes through the content and knowledge that they are presenting. It is important to not only understand the experiences of early childhood providers and how they are receiving information, but also the knowledge and information that the are learning and how it affects their confidence in the classroom.

In this study, all participants discussed attitudes and beliefs that are important to have when working with children with special needs and how they developed those personal qualities, such as patience, a willingness to take risks and understanding. In addition, throughout my data analysis, I found patterns of providers talking about what helps them to build their own confidence working with infants and toddlers with special needs. All participants talked about the role of knowledge building from both personal

and professional experiences and in PD opportunities and that influence on increasing their self-efficacy in the classroom. When providers discuss experiences that they have had with PD, the theme of changing beliefs emerged from the data and addresses how providers build their own confidence, self-efficacy, and other personal qualities from PD opportunities.

In these data, all the participants explained the important qualities and attitudes that one must have when working in early childhood settings, especially with infants and toddlers with special needs or challenges. All participants discussed these belief structures as critical for educators to have in the field, including, but not limited to, patience, understanding, and risk-taking. The theme of patience was recurring throughout much of the data as an important quality to learn. Participant 203 talked about patience as inherent trait and something that she applies to working with different children in her program. P203 explained, "I feel like I'm a very patient person to begin with. But you just got it take it slowly, everyone is different, and just kind of be open to that idea. Different kids learn in different ways." P206 also identified an important belief of hers as "just being patient with the kids overall. Kids need patience." P208 discussed the same idea but focuses on the term time as opposed to patience and giving yourself space to learn. P208 clarified, "Taking time. Just taking time, looking at what the student…looking at where they are. And then helping them to engage to get to the next level." P208 also talked about taking time and "asking for grace" for herself when she needs to step away and research something that she does not already know:

I'm not so quick…I don't worry as much anymore about having the right answers

immediately, because you have to get to learn to work with students… I realize

that I don't have to have the answer within 30 seconds. So, I've taken that stress

off of myself. Because that's not life.

Patience with young children and patience with yourself was identified as an important and common trait among early childhood providers in this study.

Understanding was another attitude and personal quality that emerged from the data and the experiences of the participants. This is identified as being able to take a step back from behavior or things happening in the classroom to see the bigger picture of the child's needs, experiences, and challenges. This trait can also be seen as being empathetic, accepting, and supportive of all learners in a classroom. P204 gave one example of bigger picture understanding of young children and the effects on their development. P204 explained it as, "understanding how a child's life at home can affect their life in like a school setting. You are a product on your environment type of stuff." P204 gave further examples of learning more about children with ASD from a workshop, which "helped me understand it a bit better." P202 talked about support for young children as being their "champion and being positive and finding opportunities to measure growth." Another example came from P206, who talked about a workshop on challenging behavior.

She talked a lot about some kids will act out but they are trying to fulfill

something. Like a need, or a sensory thing, or to get your attention. She talked a

lot about how to identify what that child is actually trying to say, and how best to meet their needs in the group setting.

P206 discussed having a better understanding of children and what the causes of challenging behavior may be, and how this understanding led her to better work with the children in her classroom. P206 also explained, "Any kid can walk through the door and our job is to support them the best way we can." All participants gave examples of ways that they are empathetic, understanding, and supportive in the classroom and the importance of these traits for all early childhood providers.

Another attitude that emerged from the data analysis was the idea of risk-taking for educators, trying something new, and being open to learning. Each participant found different ways to describe this attitude and openness to being an adult learner who wants to continue to better themselves as an educator. P201 frequently addressed this concept, saying "I'm willing to try as opposed to not try, that is just my general nature." P201 went on to say, "I know I have the good mindset of doing and trying new things." P202 talked about this concept as her "can-do attitude" and "wanting to learn more to get better." In the same way, P203 talked about a successful educator is "how open you are to changing the way you do something." There were also examples where participants shared experiences with other providers who lacked a willingness to learn and discuss those challenges. P206 said, "I feel like some people can get very stuck in their ways. I've seen it in the past, which is sad…they say 'he needs to be evaluated and I just can't do anything for him.'" All participants talked about the ability to learn and being open to trying to new things is an important skill for all early childhood providers. When

providers have this mindset and openness to life-long learning, it can lead to more knowledge building, which leads to more self-efficacy in the classroom.

All participants addressed certain experiences with infants and toddlers with special needs where they felt confident or felt like they lacked confidence in the classroom. In some examples, participants discussed how past degrees or experiences led to an increase in their own self-efficacy in the classroom, and for others, there was a focus on PD and knowledge-building as leading to confidence-building. For example, even though P202 had a master's degree in early childhood special education and lots of knowledge in the area, she described only feeling "moderately confident" when she started working with children with significant needs. Despite her educational background and previous experiences, P202 explained that even she struggled with her own abilities. When she talked about how professionals and their knowledge base, P202 clarified,

> I had exposure to individuals over my life with significant needs so it's something that can be scary to other people. Especially when there is a lot of equipment, all of the things that can be very intimidating if you haven't been around it.

P204 also spoke to how a wealth of knowledge in one area or high levels of education may not always translate into confidence in the classroom or being able to do the work:

> You could have a doctorate in early childhood but not know how to work with the child who has a disability or who's having anger issues. And you could have the trainings the same and all that, and not know how to deal with it. You can be good with the paperwork, but when it actually comes down to working with the kids, you can struggle with it. And I've seen that in the past where people will have

their bachelor's degree in early childhood but didn't know how to really sit and

work with the kids.

In contrast, P201 explained that she did not have an educational background in early

childhood, but it was her patience and passion for the work that made her a strong

teacher. P201 disclosed,

I did not start in this field because I was a teacher or I just finished my bachelor's

in early childhood education. Nothing. Nothing. All I knew is that I just had a

great love in my heart for kids and I wanted to know more.

Participants did not make an immediate connection to education and success in

the field, but instead focus on personal qualities and belief structures as pivotal factors in

their development as educators. P202 explained, "It does not take an insane amount of

school to be a cheerleader for a kid who is up against some hard things." Therefore,

confidence and success in an inclusive classroom setting with infants and toddlers with

special needs comes from other kinds of experiences and other ways that providers are

learning in the field.

The early childhood providers explained gaining confidence to work with infants

and toddlers with special needs focused on both direct experiences with children and

through PD opportunities. Participants related increased confidence to time spent with

more young children with identified needs, such as P206 who said, "I'd say I've gained

more confidence while working with them" while talking about toddlers in her classroom

in the past who have also had special needs. P201 also said, "I would say, based on my

past experiences with working with other kids, I'm a little bit more learned now. I'm a

little bit more comfortable now." In addition, P206 also made connections to her own parenting experiences and drawing on that knowledge to work better with the children in her classroom. P206 explained, "I have four kids of my own so I have gone through the evaluation process and early intervention for my son prior to working here. But I didn't have much [knowledge] before coming in." These prior experiences gave the early childhood providers some more confidence in being able to work with future infants and toddlers with special needs.

For those providers without countless personal or professional experiences to draw upon, there are examples of how PD can build self-efficacy and try to inform new attitudes about working with infants and toddlers with special needs. P208 addressed her own concerns about self-efficacy and what she was looking for in a past PD experience: "What I really wanted to know is if I can I meet their needs in the classroom? You know, I had hesitation around or concern around, 'Am I doing the right things? Am I good enough?'"

There is hope that building knowledge around working with infants and toddlers with special needs will increase confidence and change beliefs about the work. P208 also said that the concept of "not feeling so rushed" when working with children with special needs comes directly from a workshop that she attended. P203 talked about how most of the workshops that she attends address attitudes and beliefs of educators, and "the whole mindset" of working with children with special needs. P208 attributed learning about the importance of time and patience directly from this PD experience. Throughout the interview, P208 discussed patience and grace as personal qualities that she had as a

teacher, but also understood that those are skills that she has learned from continuing education and PD in the field. P206 also attributed learning to be patient from attending a workshop on working with children with ASD. P206 explained, "It just really helped me understand it a bit better. Because you just hear about autism, but if you don't really experience it, you don't really know what to expect." The direct knowledge that she gained from this training helped improve her overall understanding and expectations.

All participants described the role of PD in changing their beliefs about working with infants and toddlers with special needs, and the role it plays in building their self-efficacy. P208 explained,

> [Providers] don't know that if they find the help, that they are perfectly capable of being a good teacher for that student. They just don't have the knowledge or understanding yet that they need. We need to be open to not knowing it all.

This connection to knowledge building and self-efficacy is important when considering how PD experiences of early childhood providers can shape their skills in a classroom setting. Both P203 and P204 illustrated examples of specific training topics and how they relate to feeling more confident working with children with special needs in the future. P201 talked about her growth in knowledge leading to overall increased confidence: "I move from not knowing to completely knowing and feeling confident now." P201 also described, "Sometimes we get pretty close-minded because of lack of knowledge. But then when we receive that knowledge, you kind of change." For P201, knowledge-building had a direct casual relationship to her confidence levels. In addition, P201 illustrated this by talking about supporting and mentoring another new home-based

family childcare provider and trying to explain to her the importance of PD to build knowledge and confidence. P201 elaborated,

> I already looked up resources because I was telling her, "In order for you to stay successful in this field, you have to learn it. You have to learn what is in this field. So that you can feel comfortable with the kids"… Otherwise it's going to be frustrating. It's going to be like "Oh these kids!" Because you don't expect them to act that way. It's like when you learn it, "oh, that's why he acts that way. Maybe I can try this with him and see it if helps him."

P201 explained the connection that she has made in her professional life to the importance of continuing education and knowledge-building is a way to change overall attitudes about a child's behavior or development. It is in this increased understanding of children, which comes from knowledge-building, where P201 explained that providers can be more "comfortable" and "successful in the field." PD opportunities provide the means to both educate providers on working with children with special needs and to help change their mindsets or attitudes about development to help increase self-efficacy in the classroom. It is important to understand both the PD experiences of early childhood providers and what other PD opportunities they perceive that they need to support infants and toddlers with special needs.

RQ2

Theme 4: Ongoing, Systemic Content Related to Special Needs

The next three themes were associated with the second RQ of this qualitative study, regarding the PD experiences that early childhood providers perceive that they

need to support infants and toddlers with special needs. Theme 4 was that when asked about what early childhood providers perceive that that they needed, they reported looking for more PD specific to inclusive classrooms for infants and toddlers with special needs. Early childhood providers described needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings. All participants discussed various topics of past trainings that they participated in, and how that content relates to working with infants and toddlers with special needs. However, all participants also addressed gaps in access to PD that is focused on working with infants and toddlers, and challenges finding PD options. All participants described certain topics that they would be interested learning more about, and how those topics or content areas related to children that they were currently working with in their programs. The participants talked about several common topics that they saw repeatedly, but a lack in other knowledge-building opportunities around inclusion that felt more applicable to their classrooms. Even though PD is a bridge for educators to continue learning and developing their skills in a classroom, all the participants were looking for more applicable PD subject matter for working with infants and toddlers with special needs.

All participants shared PD experiences that they have had in the past related to infant and toddlers, and working in inclusive classrooms, and topics that are being covered by those trainings. However, all participants talked about some of the more general information that they received from these trainings. For example, P206 described multiple workshops on the topic of developmental milestones. P206 explained, "I've definitely taken some courses specialized in developmental milestones and things to look

for." P204 also talked about the focus on developmental milestones or red flags in many PD trainings about infants and toddlers. P204 described,

> I think they all just kind of talk about "here are the milestones, and here's where a child should be." Not really talking about if your child is this age and they're not speaking…it doesn't really talk about stuff like that. It just talks about, "at around 3, this is how many words they should be saying."

Some of workshops and trainings that are advertised as providing specific content in special education only include big picture developmental information for all children instead of knowledge specific to children with special needs. P201 said that some of her most recently attended trainings were "Designing Environments for Infants and Toddlers. The next one was Promoting Language and Learning. And Inclusion for Children with Disabilities." P201 described that she was able to access the topics that seemed applicable to working with infants and toddlers with special needs, but she described being disappointed in how detailed the content and strategies are. P201 explained, "It pretty much just covers the basics…making accommodations for them and trying to work with them and knowing where resources are. It just gives you the basics but it wasn't anything in depth." P204 talked about a training on the topic of ASD as "just more information-based." Another common topic that participants described was how to make accommodations in a classroom when there are children with special needs. For example, P203 also gave examples of PD training she attended that teaches you about "different changes you can make for individual children." P203 also talked about trainings that give you information on "any adaptations you can make." For early childhood providers

working in inclusive settings, trainings like this cover background knowledge-building

but are not providing the in-depth information and strategies that the providers are

looking for.

All participants also talked about experiences with much more targeted trainings

that they attended that gave them more in-depth information and strategies for their

practice. P202 talked about a workshop she attended on "executive functioning skills."

Both P208 and P206 also talked about trainings on supporting infants and toddlers with

challenging behaviors, with or without documented special needs. P208 described a

training focused on "regulation." P208 elaborated,

> [The training] was mainly around regulation. It was around items to put in the
>
> cozy corner, items to take out of the cozy corner. What does a cozy corner mean?
>
> What does a fidget mean when you give it to a student? It discussed if they're
>
> looking at the fidget too much, if they're throwing the fidget…what needs to
>
> happen for a student to be engaged in a classroom.

For P206, a training that she described on challenging behavior

> Talked a lot about some kids will act out because they're trying to fulfill
>
> something. Like a need, or a sensory thing, or get your attention. She talked a lot
>
> about how to identify what that child is actually trying to say and how best to
>
> meet their needs in the group setting.

Topics such as executive functioning, regulation, challenging behavior, and

environmental modifications are not specific to working with children with special needs,

rather they provide information that can be used for all young children in a classroom

setting. These participants described positive experiences in these workshops because of the specificity of the information and strategies that they provide. However, these topics are not entirely geared towards infants and toddlers with special needs.

      Workshops and trainings that are specifically designed to give information and strategies on working with infants and toddlers with special needs can address specific populations of children, specific diagnoses, or more practical classroom practices. P206 talked about a course in her CDA program on classroom environments and accommodations. P206 said that the training included "making sure that your room is set up for a wheelchair student if we had them here. And being aware of the setup of the building. Making sure that we have ramps, that sort of thing." P202 discussed a week-long immersion PD course focused on "environmental design and visual schedules" within a classroom. P202 talked about how this course specifically addressed inclusion practices and how to make specific classroom modifications based on developmental profiles of different children. P204 and P208 talked about workshops on working with children with ASD they attended. P204 said that the training she participated in is ideal "if you didn't know much about Autism, it was giving you all the information on Autism and how there's support out there for you." P208 talked about a workshop that she attended on ASD gave information on "a lot of visual schedules and different strategies that we're using around autism for support." These are some of the examples that participants described of the experiences that they had with PD focused on infants and toddlers with special needs.

All participants described a variety of trainings that they wish they had access to to support infants and toddlers with special needs specifically. When talking about gaps in PD offerings, all participants identified they wanted trainings that specifically target the birth to three population, as opposed to topics that cover a wider age range. P203 said that most of the trainings around inclusion that she has attended cover "infants, toddlers and elementary school" age groups in the same workshop. P203 clarified "most of the training goes from infant to maybe 10 years old." P208 explained that in her geographic area

> Everything is in some way focused on the IEP process and how to help
>
> preschoolers with special needs but there is nothing I've seen near me on who
>
> those children are before they hit preschool and how we can help them.

P208 asked, "Why aren't we giving those infant, toddler and other early education teachers access to the same tools" that teachers in preschool and elementary schools are able to access around special education and inclusion. P206 also wished that trainings were "broken down to age ranges…it would be helpful." PD that provides broader information on working with older children may provide some useful information for providers working with infants and toddlers, but providers are looking for PD that is more targeted in both age of the child and learning focus.

There are many different ideas that providers discuss for topics that they would love to learn about from PD in the future to better support their work with infants and toddlers. From their experiences, all participants described not being able to find these topics in their area or described individual PD interests that were not being met. P204

shared, "There's not really a lot on a child with a disability and here's what to do. I wish there was more stuff like that. There probably is, I just haven't found it." P208 also shared,

> And I wish I could, at this point in my career, get the chance for other trainings more specific to certain kinds of disabilities since I do all of the research on my own when I am working with a new kid…not everyone knows how to find those [trainings].

P201 described four different courses that she has taken over the years that focus on infants and toddlers with special needs, but also how she had to access online trainings from outside her geographic area hosted by outside programs. There are specific topics and content areas around infants and toddlers with special needs that are challenging for providers to find that they perceive will support their work with infants and toddlers with special needs.

All participants described wanting to learn more about specific diagnoses or strategies, but also how to support and recognize very young children and families before they are diagnosed with a special need. Many children are identified as having developmental delays or development concern while attending early education settings and providers are looking for more support in that process. P208 explained wanting more information on

> What happens before a child is diagnosed with autism but they are in your toddler classroom having a really tough time? What can we do before we know

that there is an education plan in place and resources or classrooms or access to a

SPED team?

P204 also indicated wanting more information and knowledge about not only developmental red flags, but what to do if an educator or provider is having concerns about a child. P204 clarified,

More trainings on, "if you see this, then this can be what's causing it," or more trainings like that, I guess. So, this way, if I have suspicions and I can say, "Yeah, maybe you should get your child evaluated." Or "Oh no, your child's fine"...Really being able to understand the child's needs.

Often, early childhood providers are communicating with families about developmental concerns and explain not feeling as knowledgeable or prepared to communicate with families about red flags before a diagnosis.

Another common theme that all participants discussed was content and topics around special education that were either directly tied to their current PD needs or knowledge that they hypothetically may need in the future. Participant P202 gave examples of broader topics that may be useful for a variety of students. However, participants P201, P203, P204, P206, and P208 talked about wanting to learn more information about specific children that they are currently or recently have worked with. These participants gave examples of topics that are timely and helpful based on the children in their program at that specific time. P203 explained,

If I knew ahead of time that somebody was coming in with a special need, any advanced trainings or stuff that I could do ahead of time would be great. Usually,

it doesn't work that way where the kids are so young too, that when they start.

P203 acknowledged that, ideally, she would like to be receiving knowledge and support in a certain area before having a child in her classroom, but the practical nature of the timing is unrealistic. P203 pointed to not only the challenge in knowing more about any possible needs of a child before they even start your program and being able to find quality PD in that area quickly, but also the reality that some very young children are not diagnosed or flagged for developmental concerns before starting in an early childhood setting. P206 explained that she would love more access to training:

> Specific fine motor development training, or a gross motor development training, or speech…because a lot of the trainings try to hit every aspect. And, in an hour long or a 2 hour long training, I just don't think that's a sufficient amount of time. They can be broken down and a little bit more specific.

P204 added, "I would really like to take more classes on, or trainings that have to do with autism and have to do with a child who may or may not be on the spectrum." All participants mentioned either working with a very young child with ASD recently in their program, or wanting to attend a training in that area. All participants talked about wanting more knowledge about infants and toddlers with language or speech delays, as they all described children in their program with this common developmental delay. P201 talked about "a child with speech problems" while P202 identified language delays as the most common things she sees in her program. The content area of ASD was also widespread among all participants, with every participant either talking about a training that they are looking for around that diagnosis or a child in their program diagnosed with autism. P208

explained "Most often I see autism" when talking about the different children with special needs that she sees in her classroom. P204 said, "I would really like to take more classes on, or trainings that have to do with autism and have to do with a child who may or may not be on the spectrum." All participants mentioned working with or struggling to work with children with autism in their program, but there are other diagnoses that come up in the data as well.

More rarely did participants talk about other disabilities or diagnoses that they were interested in learning more about. P201 talked wanting more specific information about a child currently in her program diagnosed with a visual impairment, Peter's anomaly, and struggle to find in-depth information from the resources that she has normally accesses. P201 explained that working with a child with a visual impairment "was totally different for me" and she did not have any previous training in that area. P201 talked about her biggest challenge working with this toddler as "not being able to attend training" prior to working with him. P208 mentioned working with several toddlers with Down Syndrome and Prader-Willi's syndrome (PWS), which are both chromosomal disorders that cause global delays and other medical complexities. P202 described more professional examples of working with medically complex and globally delayed children, many of which have multiple disabilities or require equipment for feeding or mobility. P202 elaborated, "I've worked with a lot of children with developmental delays, I mean everything I guess… it was kiddos where it was undeniable that there were significant needs. It was not mild or moderate in any capacity." P202 described her training to work with children with this level of need as "learning on the

fly," with no access to formal or specific PD opportunities. Participants who described working with infants and toddlers who have multiple disabilities, low-frequency conditions like visual impairments, or rarer genetic and chromosomal disorders described needing access to specific knowledge and strategies that are different than working with other children with typical development.

Early childhood providers reported that they perceived that they needed targeted, systemic PD that specifically focuses on infants and toddlers with special needs in inclusive classroom settings. Participants described specific areas of content or diagnoses or strategies that they would like to learn more about that are more focused on working with infants and toddlers, and not necessarily older children. Participants also described knowledge and skills that they feel like they need now and may need in the future based on the children with special needs that they are working with currently. Participants acknowledged prioritizing information that is connected to their immediate PD needs, like a child that is in their program right now or will be soon, and hypothetical needs or content that may be useful down the line. The data showed that early childhood providers are working with many children with speech and language delays and ASD, and less often working with children with multiple disabilities, low-frequency conditions, or rarer disorders. Participants described the challenges in finding useful topics in the field of special education, and whether these PD opportunities do not exist in their geographic area or they do not know how to access them. Overall, early childhood providers are looking for better access and options for PD focused on infants and toddlers with special needs to build their knowledge and skills in working in inclusive classroom settings. A

second theme that came from the data regarding early childhood provider perspectives connected to their desire for more connection with colleagues, supervisors and specialists that can provide technical support and direct strategies.

Theme 5: Technical Support and Collegial Collaboration

Theme 5 was that early childhood providers perceive they need direct supervision and strengthened systems of collegial collaboration to meet the needs of students with special needs served in inclusive classroom settings. All participants discussed the important role of relationships with families, colleagues and supervisors when working with infants and toddlers with special needs. When discussing experiences of support and training, these resources are more commonly being utilized by early childhood providers than PD workshops, so these same participants said that they wanted even more access to collegial collaboration, supervision, and connections with people. There are opportunities for early childhood providers to connect with colleagues both within their program and classroom for in-person support, but also within a PD training or workshop that is designed for times to connect and work together. All participants also wanted to partner with and learn from specialists, therapists and outside professionals for both knowledge-building and consultation with a classroom. Technical support also incorporates models of onboarding, training, and supervising all early childhood providers to work in inclusive settings, no matter the type of program that they work in. In this study, the data showed that participants were seeking out formal as well as informal connections with colleagues, supervisors, and other professionals in the field to better support their knowledge, skills and practices with infants and toddlers with special needs.

All participants, when talking about different PD formats they experience, noted the benefits of time to collaborate and work with peers and colleagues during PD opportunities. For participants who described the benefits that they see in face-to-face, in-person PD trainings, they were looking for these opportunities to give them time working along with other participants to improve learning. P208 talked about face-to-face trainings that allow her to share her experiences and listen to the experiences of other. P208 elaborated, "I like to hear everybody's ideas. I like to get an idea of what does this school do, what does that school do." In face-to-face trainings, P201 explained, "I am able to connect with the learned professionals or other specialists in my area." P201 went on to describe, "I'm learning from the teachers what they're doing in the classroom so I can possibly incorporate here in my program. It's always a learning opportunity for me and a great opportunity to network." For participants who preferred to attend online or virtual training options, they also addressed how they sought out the opportunities to still make connections with the other colleagues in the training. P203 talked about an online course that provided a chat room that allowed her to speak to not only the facilitator but also the other attendees. P203 continued, "Knowing that it's there if I needed it is helpful." For an online workshop that P201 attended, she also talked about the breakout small group rooms that the facilitator used to let attendees connect. P201 described,

> We got about 5-10 minutes in breakout rooms whereby we can discuss. And it was a variety of professionals so licensed providers to coaches - those are EC coaches that we have that go to different programs and they look to see what's

happening and they can help – to directors, so it was a variety of different forces there to talk to.

In the example of both P201 and P203, who were both home-based family childcare providers, they appreciated the chance to connect with colleagues in other programs, and directors from different areas. The participants demonstrated a need for these chances to collaborate during PD with colleagues from other programs for ideas and support.

For those participants who worked in center-based programs with multiple providers and educators in the same center, they were also looking for more opportunities to make connections within their own teams for their own PD. Participants P202, P206, and P208 all described PD trainings that they participated in with their entire staff of their program and the value of that extra time to collaborate internally. P202 talked about an immersion program for her entire program where the teaching teams were lumped together and "I would be with my SLP that I actually work with." During this training, P202 described how the teaching teams learned and created materials together as part of the training format, and how "it was super applicable to our classroom because…the project was literally implementing the strategies in the classroom." When describing the experience of this training and being able to take time to partner with her colleagues, P202 said, "I think that's like unparallel so I don't know how much better, in my experience, I don't know how you can do it much better than that." P206 also talked about how she wants the chance to have more trainings in-house in her program and alongside her teaching team. P206 explained the facilitator "broke down scenarios around the room and we had to kind of work through that and how we would handle that in terms

of teachers in the classroom," and how she liked the experience of being able to solve these problems alongside the teachers that she works with daily. In addition to the benefits of connecting with outside colleagues and other educators during PD, participants reported wanting even more access to training that can incorporate their entire teaching team and program to give them more time learning how to collaborate and solve practical problems together.

The most common connection that all participants report needing to work with infants and toddlers with special needs is connections with outside specialists, consultants, and professionals. These specialists or therapists are viewed as having a different set of skills and a more in-depth knowledge base in special education or specialized classroom practices, and participants want more access to them in their classrooms. P203 talked about a child in her program who she knows in enrolled in EI, but she did not get the chance to directly collaborate with that team. P203 explained,

> I wish that early intervention, like the specialists, could come to daycare. It's kind of hard, and I understand that the parents want to be home, be a part of it. But even if they could do maybe every other visit here or they could work something out at least once that the specialists can see what's going on and if they have any tips.

In her example, P203 knew that the child was receiving outside resources but was not able to connect with those therapists for support within her classroom. P201 described a different situation where she did have access to an EI team and was able to have them come and work in her program. P201 continued that "they wanted to come and work with

the child in the setting. And I was able to accommodate that." In her example, P201 described a slightly different relationship with the child and family, as well as more knowledge about the EI resources that she could access and ask for. P204 illustrated a different scenario where her program had direct relationships with therapists and specialists. P204 explained her ideal classroom support model as

> I wish that there was someone in the daycare all the time that could help more. Someone who specializes in someone with autism or having like speech pathologists in the center. I wish we could have that, but it's realistically not going to happen…just having someone, a third person in the room or someone who can really specialize in that type of stuff. I think that would help.

P206 shared a similar vision for the best ways to support her own learning in a classroom when working with infants and toddlers with special needs. P206 noted,

> But I think in the ideal world, it would be great to…even if it was just every couple months, have a therapist come in. Have just somebody come in, watch the kids and see where they're at and just give guidance. And not to say that they are going to diagnose kids or anything like that. But just to be like, "Oh that kid's still crawling? Here's some tips to encourage them to walk from point A to point B."

Both participants described slightly different alliterations of a consultant or co-teaching model, where outside therapists would either come in and provide guidance and support for children and providers on a needed basis, or as a regular staple in the classroom. Both participants also addressed that these are "ideal world" examples of how to support their

own development as educators working with children with special needs, but this desire to have access to specialists is expressed by all participants. P206 also elaborated,

> I don't know that knowledge, but I want to support the kid in any way I can. Without trying to seem like I know it all either or I know what's best, because I certainly don't…I think in an ideal world it would be great to have those resources to come in and just kind of give basic knowledge to staff… outside specialists, therapists, whatever you want to call them.

Early childhood providers described a desire to best support all children "who walk through the door," like P204 explained, but also acknowledged that partnering with therapists or consultants can bridge the knowledge gap that providers may have working with infants and toddlers with special needs.

In addition to seeking support and knowledge from outside therapists, supervisors and mentors also provide needed support and resources for early childhood providers, and they perceive that there are more opportunities to access these resources. Each participants shared different experiences with their educational backgrounds, time in a classroom, and what their training process looked like. P202 talked about her graduate degree in early childhood special education, but how she was still "learning on the fly a lot." P202 went on to explain

> I definitely did not have the support I needed. But I was young and can 'fake it 'til I make it,' I feel like there are a lot of agencies out there that want to get you, and get you in there. And you can make a good hourly rate. And they don't give you the training necessarily that you need…I don't think I even met those people

before they sent me on my way. And when you have a degree and a certification, I

think they think, 'Ok, yeah, you can do this.'

P208 echoed this sentiment when she explained how she wished new providers were

supported and trained before working in a classroom. P208 explained,

When they start the hiring process, there is someone is there to train you for 6 to 8

weeks. Or 3 weeks, or 2 weeks or 1 week, a day, something. I mean, because

[new teachers] don't know and they don't understand a lot of times since they

haven't been in classroom with typical peers, never mind been in classroom with

children with special needs.

Even though both P208 and P202 were more experienced educators, they displayed

concern for how new educators are being trained and supported when they enter the field

and how that can impact their ability to work with children with special needs. Both

participants talked about wanting more purposeful and ongoing support and onboarding

for early childhood providers and the difference it can make in their development. P208

went on to explain that she thinks that educators need

Just more overarching, hands-on training, onboarding and support. Yes, because I

think that it takes that, hands-on training. When I started I didn't have anyone

with me from day 1 either, but I did have a mentor that I could reach out to. And

I'm not for sure if the current staff have that, I'm sure that they don't.

P208 talked about a mentor, or more senior teacher, that she used for PD when

she was a less experienced provider and her perceptions of the importance of that

individual for all educators. For a provider like P201, who claimed that she had no

background in child development or education before starting a family childcare

program, or P206, who only had experience as a mother before working in a toddler

classroom, mentorship and supervision was key to personal and PD. P203 described an

experience of reaching out to her early childcare program licensor for support with a

child with special needs who was challenging in the classroom. P203 said, "I wish that I

has reached before just to be, 'what kind of resources do you have? How can I help the

kids that don't really necessarily need help, but what I can do?'" P203 went on to explain

that every now and then she thought, "what if [the licensor] just comes, just make sure

I'm still doing a good job?" P203 described her perceived benefit from that outside

mentorship and support and a desire to create a continuing relationship of support where

she can get validation for her work. The experience of P208 was her access to

coordinators that she connects with once a month. P208 explained,

> I make sure to process with [my coordinator] about children when I'm not sure
>
> which way to go, honesty. If I need any extra help, and if we have the extra eyes,
>
> our coordinators will come to see classrooms as well.

This mentor or supervisor relationship was seen as important for both initial training and

gaining background knowledge, but also for continued support, validation, and guidance.

Early childhood providers are seeking more access to supervisory and mentoring

relationships for their PD.

Early childhood providers are seeking to build connections and relationships for

their own PD in a variety of ways. Participants described networking and learning from

colleagues both within their classroom and from other programs when they have the

chance to work collaboratively in PD. Participants also described their desire to connect with outside specialists or consultants to both support the children in their inclusive classroom settings, as well as help provide them with knowledge and individualized strategies. Finally, providers were seeking for more access to mentors and supervisors for both initial training and continued technical support. Collaboration, teaming, and connection were all common themes when providers discussed both their experiences of PD and what they perceived that they needed to better support infants and toddlers with special needs. In addition to the content of PD and how providers are able to connect with others, there are still other factors that early childhood providers perceive aiding them in adopting new classroom practices in the field.

Theme 6: Factors Influencing Adoption

One of the most important goals for educators and providers experiencing PD is to be able to learn skills, strategies, and practices that they can adopt and add to their classrooms. However, there are different factors that can affect how providers are able to begin implementing what they are learning from PD. Theme 6 was that participants shared how formats of PD, including the skills and strategies being taught, time to practice and get feedback, and hands-on interaction with the content affect how they are able to adopt new classroom practices. In addition, personality factors like openness to learning, and risk-taking can affect how an early childhood provider is able to put new strategies into action. Finally, participants also discussed how the influence of others in their network can affect adopting new practices, including their role in the program and being able to observe others. Understanding the experiences and perspectives of early

childhood providers and how they believe they best implement new practices can aid in creating PD that best supports both infants and toddlers with special needs and provider.

All participants in this qualitative study explained their own learning styles and how they learned new material and content the best. P208 shared that the best way for her to learn was "visually and to practice. To practice, to see it, to get in it, literally. Just to experience it." P208 described learning environments that promote opportunities for material to be presented visually as well as chances for hands-on and direct learning. For visual learners, participants described materials that facilitators can use to support their own learning. For example, P206 described a training that "was a power point slash get up and move training" where the facilitator was having the providers follow along with a visual presentation at first, and then gave them to chance to get up and break out into smaller groups. P204 also remarked "videos are nice" when talking about other ways to demonstrate strategies or ideas during a training. Participants P201 and P203 also talked about their preference for visual information in the context of online or virtual trainings, as opposed to a lecture where information is only presented auditorily. For example, P203 explained her experience with online trainings.

> There is a lot of reading, videos that you have to watch. You can't go on to the next section until you've watched the videos… And I can go at my own pace, it's just easier to do it this way.

None of the participants described their own learning style as auditory, they all shared experiences and preferences for visual and kinesthetic models for understanding new information.

Hands-on and kinesthetic learning are common ways that the participants described learning new information in the best way. Every participant shared past positive training experiences that incorporated this hands-on approach or more opportunities for this form of training in the future. P201 talked about a Language and Literacy training where they first learned new strategies and then "we practiced and continued to practice" during the workshop. P202 described a training as, "everything we learned, essentially, we carried out," where they had the chance to also practice the skills that they were being taught. P202 continued, "I think for my learning, when you actually are doing, that's the best." P204 also said, "I'm more hands-on," when reflecting on how she best learns in a training. P208 also explained her desire for more "hands-on training" when they are training new staff in her program. The theme of being able to have chances for active learning, time to practice new skills embedded within a training, and have kinesthetic learning opportunities demonstrate the importance of this factor for providers adopting new practices in a classroom.

In addition to hands-on learning in a training, participants also noted the importance of learning skills and strategies that are applicable and relevant to their practice. The goals of some PD training may focus on knowledge-building or providing background information, but every participant notes the desire for more access to training that provides direct strategies to work with infants and toddlers that they can immediately apply. P206 described a workshop that talked about inclusion and how "[the training] just gave me strategies to do that better." P206 explained this link from gaining knowledge and skills and how to directly implement these strategies in the classroom to be a stronger

and more effective teacher, an important goal of all educational PD. Every participant

shared specific examples of strategies that they have learned from PD and been able to

implement or that they perceive that they will need. P206 talked about a training that

teaches "having a visual schedule instead of saying it out loud to the students. So, those

that need a little transition time can know what's coming up next." P206 and her student

directly benefitted from her learning how to create a visual schedule for her classroom

that she could adopt. P202 also learned about creating visual schedules in her classroom

learned from a training and shares some of the strategies that she adopted. P202

explained, "The project was literally implementing the strategies in the classroom and

rearranging the environment and creating materials and creating visuals and creating

schedules. So that made it extremely helpful." This specific workshop P202 described not

only specific and applicable strategies for the providers, but how the training ended with

the participants created a project directly tied to what they had been learning. P204 talked

about a workshop on provider self-care and regulation and the strategies that she gained.

P204 elaborated the workshop taught her:

> Taking a step back and collecting myself before I then calm them down. Counting
>
> to ten or counting to five, or just like taking a deep breath and then going back to
>
> help the situation. That is one strategy I've done.

P204 not only described the strategy that she was learning, but also her ability to use it in

the classroom because of its simplicity and relevance to her work. P204 also talked about

a training on inclusion and another strategy that she adopted "is just changing the room

and seeing what works and what doesn't work. And really focusing and like the routine

also of the classroom, the rhythm of the day and really trying to stick with that." P204

reflected on that training and many of the small strategies that she still remembers and

regularly implements into her practice. P204 elaborated,

>
> If everything is going in their mouth, having a teether nearby that they can use to
>
> put in their mouth. Or having a certain toy that they like playing with put to the
>
> side. Putting on their favorite song that can help them. Even just taking them out
>
> of the situation and the setting of the classroom. Going for a little walk around the
>
> hallway just so they can unwind and calm themselves. Or even just giving them
>
> the deep pressure massages on the arms, their legs, giving them a tight squeeze.
>
> Giving them a sip of water. Even just like a snack sometimes can help. Going
>
> outside for a few minutes and getting some fresh air.

The small and practical tips and skills that she learned from just this one training were

memorable and relevant to what she P204 saw in the classroom and felt she could easily

add to her toolbox of regulation strategies. P203 explained a workshop centered on

sensory and art activities for infants and toddler and strategies that she implements now.

P203 shared,

>
> I did like how they had said that when you are doing an art and craft project, that
>
> it can be open-ended. The kids who are more advanced can do stuff, the kids who
>
> are just learning or not as advanced can also go at their own pace and just
>
> different ways to alter things like that.

When asking about what they remember learning from recent PD trainings, every

participant more readily could recall and explain these sorts of strategies over information

or basic content. All participants shared positive experiences of training that can provide different tactics and skill sets to work with infants and toddlers with special needs.

Much like the way that providers shared how their attitudes can affect their confidence working with infants and toddlers with special needs, they also shared how their attitude about learning in general affects the link between new knowledge and changes in practice. P201 described her personality as "I'm willing to try as opposed to not try, that is just my general nature." P201 also explained, "I know I have the good mindset of doing and trying new things" when she was discussing working with infants and toddlers with special needs or other children who were new to her program. P201 reflected on her inclination for a model of life-long learning and how it makes it easier for her try new things, experiment with different strategies, and be willing to show vulnerability and learning. P201 extended this into explaining a conversation she had with another newer provider, encouraging her to be open to learning. P208 stated, "In order for you to stay successful in this field, you have to learn it. You have to learn what is in this field." P208 also described a self-reflection for not knowing everything and how her attitudes about adult learning impact her willingness to try new things. P208 explained,

> I ask for grace. Almost like, 'You know what? I've never seen that before, let me research that. What are they doing?' I go out and do observations. I realize that I don't have to have the answer within 30 seconds. I've taken that stress off of myself.

P208 acknowledged that she is now more likely to adopt new strategies and research new practices because she attended a training that taught her to take her time learning and this adoption "doesn't have to be rushed." When P206 described learning new strategies from a training to support self-regulation, she says that she also learned new skills and was encouraged "not just trying to figure it out on my own." P206 believed that this messaging from a PD experience helps her understand the importance of continued learning in her development as a provider. Attitudes about adult learning, risk-taking, and trying new things can impact how a provider adopts new practices, and PD can affect those beliefs.

Another factor that participants described as influencing their implementation of new classroom practices is the impact of their network and professional position. There were no participants who outwardly acknowledged the importance of others in their network and circle and that influence on their own adoption of new practices. However, many of the participants, P201, P203, and P208 shared stories and examples of PD where there were implicit interactions between the participant, colleagues, or supervisors around them, and the content that they are trying to adopt. For example, P203 explained an experience where she received support and information from a family childcare licensor about a child in her program with challenging behaviors. P203 described looking up to this mentor in her network, putting high stock on the knowledge and strategies that she was suggesting, and her desire for feedback and validation from this mentor. P203 explained, "She did give me things to work on and different things I could add to daycare… every now and then what if I say 'just come, just make sure I'm still doing a

good job.'" The influence of this knowledge coming from someone that she looks up to her in network made it easier for P203 to adopt new strategies that came directly from that individual that she trusts. Most of the other PD opportunities that participants described were facilitated by either an outside consultant or trainer who came into their program, or an outside facilitator who ran their own trainings either in person or online. The participants did not describe having a relationship with the facilitator before or after the workshop. When asking about the background or education of individuals running the PD, no participant could remember or identify any individuals that they had been trained by in the past. P202 talked about an outside training company coming into her program to teach the entire center how to use an assessment tool. P206 described outside consultants who visited her center for day-long workshops for the whole staff. P202 described national companies that provided an online platform and the content for providers to gain access to training. In contrast, participants P201 and P208 discussed how their colleagues affected their learning and ability to implement new strategies. P201 explained that in PD: "I am learning from the teachers what they are doing in the classroom so I can possibly incorporate here in my program. It is always a learning opportunity for me and a great opportunity to network." P208 shared a similar sentiment, saying, "I like to hear everybody's ideas. I like to get an idea of what does this school do, what does that school do." Seeing the success of their colleagues using new strategies in their programs and being able to learn directly from peers was an important factor both P201 and P208 to adopt new practices.

To make the jump from gaining new knowledge to being able to then implement change in a classroom setting, there are a lot of factors that can make PD impactful. Participants described one of those important factors as their connections with the individuals sharing that information or new strategies. Another factor was the willingness to learn of the participant and what their attitudes were about taking risks, trying new things in a classroom, and being comfortable with the learning process. Finally, the most noted factor that influenced new practice adoption was the format of teaching of the content and strategies. All participants noted the connection between their need for visual and kinesthetic experiences to learn new material and the impact that hands-on learning has for being able to implement new classroom practices.

In this study, six distinct themes emerged from the data regarding the experiences that early childhood providers report that they have had and perceive that they need to support infants and toddlers with special needs. When early childhood providers discussed PD experiences that they have had, they address the varying formats of PD available to them, their reliance on collaboration with families and colleagues for information, and how PD experiences change their attitudes and self-confidence to work with infants and toddlers with special needs. In regards to PD that they perceived that they needed, early childhood providers described wanting access to ongoing and systemic content related specifically to special education, more collegial collaboration, and technical support, as well as the different aspects of their learning that allow them to adopt change into their classroom practices. In the next section, I describe the trustworthiness of these findings.

Evidence of Trustworthiness

Trustworthiness is imperative in research and methods are used during different stages of the data collection and analysis process to ensure the integrity of this process. In qualitative research, care is taken to ensure that the study is valid and that the reader can have confidence in the information presented and overall results (Ravitch & Carl, 2019). Some of the methods I used during data collection and analysis were member checking, reflexive journaling, and using secondary and expert reviewers to check for all potential biases in data collection or analysis.

Credibility

Credibility in qualitative research is the researcher's ability to understand complexities that present themselves and to deal with other patterns in the data that are not easily interpreted, and is comparable to the concept of internal validity in quantitative research ((Ravitch & Carl, 2019). The credibility in this study was ensured by making sure that the interview questions developed on the interview protocol allowed for prompts and probes can be used to elicit plentiful data. All participants were able to review the data collected during the interview process for completeness and correctness through a system called member checking where participants were sent transcripts of their interviews. Member checking is a way for participants to ensure the accurateness of the transcription and direct quotations and provide validity to the data collected ((Ravitch & Carl, 2019). Also, reflexive journaling throughout the data collection and data analysis process demonstrates transparency in the researcher's decisions and reactions, can help to reveal assumptions or biases and further add to the credibility of the study (Karagiozis,

2018). Fainlly, this study used secondary, expert reviewers of the data collected and thematic coding process, including the committee chair and methodologist, to provide additional internal validity of the data and findings.

Transferability

Transferability is the way that qualitative studies can be applicable to broader contexts while maintaining the richness of the concept-specific findings ((Ravitch & Carl, 2019), sometimes also viewed as generalizability. One way to achieve this in qualitative research is how the participants and data collected are representative of the larger population being studied. For this research study, the recruitment of potential participants was conducted through online professional platforms and social media, including LinkedIn ™ and Facebook ™ groups, to recruit early childhood providers from different backgrounds and areas of the United States, not just from a single program or smaller geographical location. All participants had the commonality of their professional experience of working with infants and toddlers with special needs, their current position, and other important aspects of the inclusion criteria. In addition, by having detailed descriptions of the data collected and the contexts of the experiences of the participants allowed the researcher and readers of the study to make comparisons to other contexts based on as much information as possible ((Ravitch & Carl, 2019).

Dependability

Dependability in qualitative research refers to the stability of the data collected and the consistency of the results over time ((Ravitch & Carl, 2019). This is comparable to the reliability in quantitative research, and can be achieved through a solid research

design. In this research study, I outlined and detailed all steps of the data collection and analysis process. This allows outside readers to follow along with the research and data analysis process.

Confirmability

Confirmability refers to the balance between being objective about the research study and data collected and understanding the inevitable biases that will exist in qualitative research ((Ravitch & Carl, 2019). Reflexive journaling is one way for qualitative researchers to challenge their own personal biases and assumptions in systematic and ongoing ways throughout all stages of the research process (Karagiozis, 2018). This research study used reflexive journaling during and after each interview as well as throughout the analysis process to analyze the power relationships between research and participant, and to examine the personal responses to the data. The journaling process was a way to explore how possible biases and reactions to the data color the interpretations to mediate them as much as possible.

Discrepant Data

Discrepant data is when there are contradictions between the data (Daytner, 2006). While analyzing the interviews, I looked for similarities and differences in the data. All participant responses were similar in content aside from individual differences in experiences and depth of their responses. There were no remarkable differences, although some participants offered less information or opinions on the content than others. There were no rival responses from the data that conflicted with the themes.

Summary

In Chapter 4, I addressed the two RQs of this qualitative study: What training do early childhood providers report they have had to support infants and toddlers with special needs in inclusive classroom settings? What training do early childhood providers perceive they need to support infants and toddlers with special needs in inclusive classroom settings? I presented the findings from the 6 early childhood provider participants who were interviewed. Overall, the findings revealed that early childhood providers described different experiences with PD, such as the different formats and ways that they were receiving information, the experiences that helped them build their self-efficacy, and how collaboration shaped their own PD. In addition, the findings showed that early childhood providers describe the need for PD with content directly related to working with infants and toddlers with special needs, the importance of connecting with other people while experiencing PD, and the PD experiences that they believe will directly lead to changes in their classroom practices. In Chapter 5, I will provide interpretations of the findings in the context of other literature in the field and how these findings confirm and extend our understanding of the role of PD for early childhood providers.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this basic qualitative study was to explore the experiences and perspectives of early childhood providers working with infants and toddlers with special needs in inclusive settings. The problem that was addressed through this study is that there is insufficient PD training for early childhood providers working with infants and toddlers with special needs in inclusive settings. By interviewing early childhood providers about their experiences with PD and their experiences working with infants and toddlers with special needs, I sought to understand those experiences and how these providers are currently being trained to work with the children in their inclusive settings. The purpose of this study was to understand what training early childhood providers reported they have had and what training early childhood providers perceived that they needed to support infants and toddlers with special needs in inclusive settings. I also sought to look at the perceptions of these same early childhood providers for what training and PD they believed was missing for them, and what they felt was needed for them in the future. Findings revealed that early childhood providers described different experiences with PD, such as the different formats and ways that they were receiving information, the experiences that helped them build their self-efficacy, and how collaboration shaped their own PD. In addition, the findings showed that early childhood providers described the need for PD with content directly related to working with infants and toddlers with special needs, the importance of connecting with other people while experiencing PD, and the PD experiences that they believed would directly lead to changes in their classroom practices. These data give important information about the

experiences and perspectives of early childhood providers working with infants and toddlers with special needs and the role that PD can play in their own professional growth.

Interpretations of the Findings

The findings of this study revealed six different themes related to the PD experiences that early childhood providers reported that they have had and the PD experiences that they perceived that they needed, as shown in Table 13. Early childhood providers described different experiences with PD, such as the different formats and ways that they were receiving information, the experiences that helped them build their self-efficacy, and how collaboration shaped their own PD. In addition, the findings showed that early childhood providers described the need for PD with content directly related to working with infants and toddlers with special needs, the importance of connecting with other people while experiencing PD, and the PD experiences that they believed would directly lead to changes in their classroom practices. This chapter reviews all six themes that emerged from these data and how to interpret and relate these findings to how early childhood providers are supported and trained in the field.

Table 13

Themes Headlines and Theme Alignment With Research Questions

RQ	Theme	Themes	Theme headline
1	Theme 1	Early childhood providers describe varied PD experiences and opportunities support infants and toddlers with special needs in inclusive classroom settings	Format of PD
1	Theme 2	Early childhood providers rely on families, colleagues, and other professionals to provide knowledge, support and fill gaps in ongoing PD needs	Collaboration with families and colleagues
1	Theme 3	Early childhood providers perceive that effective PD changes attitudes, beliefs and sense of self-efficacy in serving infants and toddlers with special needs in inclusive classroom settings	Change in beliefs to change confidence
2	Theme 4	Early childhood providers describe needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings	Ongoing, systemic content related to special needs
2	Theme 5	Early childhood providers perceive they need direct supervision and strengthened systems of collegial collaboration to meet the needs of students with special needs served in inclusive classroom settings	Technical support and collegial collaboration
2	Theme 6	Early childhood providers describe personal and teaching experiences, PD design and content, and their influence on supporting adoption of strategies and practices to support students with special needs served in inclusive classroom settings	Factors influencing adoption

Theme 1: Format of PD

There were three different themes about the training that early childhood providers reported that they have had that emerged from the qualitative data. First, the participants shared stories and examples of the varying formats and experiences that they had in past PD training. They talked about the different pros and cons of online training versus programs in person, about synchronous versus asynchronous learning, and about one-time lecture-style training versus hands-on or experiential workshops. There were

descriptions of semester-long courses taken as part of a credentialing process as well as

2-hour workshops embedded into existing staff meetings or conferences. In addition,

participants described how facilitators did or did not utilize integrated or

multidimensional learning strategies embedded into the format of the PD. Overall, one of

the goals of better understanding the experiences of early childhood providers is to

understand what leads to a change in practice or innovation for these educators. How can

PD be designed, formatted, and delivered so that early childhood providers can adopt this

new knowledge, strategies, or beliefs and thus improve their work with children with

special needs?

One conclusion from these findings is the perceived importance of PD that is

taken independently by a provider versus PD that is embedded into staff development and

training within a program. The theory of diffusion of innovation (Wejnert, 2002) outlines

different characteristics of individuals, groups, and trainings, and how it impacts the

ability of the individual to adopt a new practice or innovation. Wejnert (2002) grouped

the different components into three categories: characteristics of the innovation,

characteristics of innovators, and environmental considerations. The diffusion of

innovation theory outlines that private versus public consequences of change can impact

how participants adapt new practices from training. The data from this study showed that

participants either attended PD that was directly part of their current program or

workplace or conferences, online courses, or one-time workshops they attended

individually. The theory of diffusion of innovation (Wejnert, 2002) says that innovations

are more likely to be adopted when the information is distributed to an entire group at one

time, and there is spatial and temporal contiguity between the individuals and the source or facilitator. In other words, when looking at an early childhood program or setting, if there is a large center-based training where all the providers are being taught the same strategies alongside supervisors and managers, they may be more likely to all adopt the same innovations together as opposed to one individual educator learning new skills in a separate setting and trying to bring those new skills back to their program or classroom. This can also be viewed as institutional coercion or the power of pressure from a professional network. Participants in this study described positive PD experiences and strong take-aways that they were able to immediately institute when they attended a conference with their whole teaching team, when their director brought in a facilitator for an all-staff training, or when an entire district was a part of a week-long program. This practice aligns with a public consequence of making changes within a program and can impact the ability of early childhood providers to adopt new practices.

In addition, when looking at the different formats that providers described, there were highlighted differences in PD that was more focused on knowledge-building and lecture formats, versus PD that was interactive and multidimensional. According to the whole teacher approach (Chen & McCray, 2012), a multidimensional training offers various ways for the teacher to learn the content and can accommodate different teaching styles through a variety of teaching pedagogy. Research has shown that in ECE, quality PD requires a multidimensional approach that is designed for a large variety of adult learning modalities (Pacini-Ketchabaw et al., 2023). In this qualitative study, two of the participants noted that they preferred an online modality of learning, but those

preferences were mostly related to convenience, scheduling, and priorities of training related to time constraints. Every other participant talked about the overall benefits for them for in-person, face-to-face, and hands-on learning opportunities. Multidimensional learning would include opportunities to listen, to watch, to work in small groups, to work in large groups, to practice, and to get feedback to better understand and master the content. One participant noted that her ideal learning style was "visually and to practice." Another talked about how she liked videos but was mostly "hands-on." Another discussed the importance of being in person with a facilitator because "you can ask questions…and give her real-life scenarios." Even participants who described experiences in synchronous and asynchronous online learning talked about the benefits of breakout room small groups and being able to send messages to a facilitator in a chat room format. When the participants talked about trainings that were more passive for the participant, including lecture-style workshops or classes without any interaction with the material, they all discussed challenges with staying focused, understanding what they were learning, and being able to recall it later. One participant even discussed her challenge in being able to recall and talk intelligently about an assessment tool that she learned about in an immersive semester-long course. She described the lecture-based format as a deterrent to her full understanding of the material and compared it to another program that she attended in person that involved creating a project as a team and lots of small group work and interaction. This study demonstrated the benefits that participants described of different multidimensional training opportunities.

There is evidence from the data that the format of how PD is created and presented to educators can also impact how the content is understood, applied, and adopted into a classroom setting. There are pros and cons to all differing formats of PD, based sometimes on individual circumstances like time constraints or individual learning styles. This study provided some evidence for the role of internal or team-based PD experiences as having an impact on how an innovation or new practice is accepted and adopted, as opposed to PD that individuals attend on their own. In addition, any PD that can use more multidimensional methods and find ways to allow participants to engage with the material and content in different ways was shown to better capture the attention and interest of the providers and make it easier for them to apply the practices in their own settings.

Theme 2: Collaboration With Families and Colleagues

One of the most powerful and recurring findings of this study was the participants' reliance on their colleagues and families in their program for support and guidance regarding infants and toddlers with special needs. Every participant shared challenges with finding PD that addressed infants and toddlers, so when asked about how they learned to work with these children with special needs, they immediately discussed personal connections and individual support. Providers described getting information from families about the best way to work with their children or looking to more experienced colleagues or specialists for help. This reliance on families and peers to have and share needed information instead of the provider going to seek out continuing education and PD was repeatedly brought up by all the participants in the study.

First and foremast, it is important to acknowledge the importance in the field of ECE to build relationships with families and the philosophy of seeing parents as the experts on their own child. The NAEYC educates early childhood providers on the importance of building relationships with families and how to engage them in their child's education (Koralek et al., 2019). EI and ECE are both based on family-centered and parent-coaching models that view parents as a young child's first and most important teacher and the ones with the most information about their child and family (Sheppard & Moran, 2022). Part of that relationship is the creation of open communication and dialogue with families to understand the needs of their child, to share concerns or questions that a provider may have, and for families to feel comfortable engaging with their child's teacher (Koralek et al., 2019). This study demonstrated that early childhood providers are accessing and partnering with families when they are working with an infant or toddler with special needs. All participants spoke to the importance of creating those relationships, asking the families lots of questions about how to work with their child, and using their expertise.

There are added challenges and concerns for the field, however, when providers rely solely on families to educate them about working with their children. Research has shown that for families with infants and toddlers with special needs, there are still significant barriers to finding high-quality, inclusive programs that are prepared to support their children (Weglarz-Ward et al., 2019). Even though it may appear that getting expertise from families is best practice, reliance on parents and caregivers to be the only ones holding and sharing the knowledge about working with their infant or

toddler with special needs puts added pressure and stress on a family. When families feel that providers or programs are not equipped or able to support their child, it can potentially lead to distrust in the ability of the educators or the exclusion of their child from certain environments (Wertlieb, 2018). Families want to feel like their very young child will be well-cared for and supported while in inclusive childcare settings and that providers will utilize support systems and resources to help educate themselves on working with their child with special needs. Thus, early childhood providers need to find a balance between collaborating with families and ensuring that they do not overburden families with being their sole resource and source of information.

An added part of this theme that emerged from the data was how early childhood providers were accessing colleagues, supervisors, and outside professionals for support and knowledge building. The diffusion of innovation theory (Wejnert, 2002) addresses how the status and role of the facilitator or source of the information can have an impact on how likely an individual is to understand and adapt the practice. In this study, many participants talked about support that they had received from supervisors, mentors in the field, and other colleagues with more experience. All those experiences were described as valuable. Supervisors and colleagues were seen as a first line of support and knowledge in terms of working with infants and toddlers with special needs, even before access to PD. In addition, the diffusion of innovation theory (Wejnert, 2002) looks at how one's position in a social network and contact with others in the network can impact openness to new information. The participants who worked independently in family-based childcare spoke about connections with their licensors or experienced providers in their

network as a way that they were getting new information and support about working with children with special needs. Social and professional position of authority made the early childhood providers see these colleagues and mentors as a strong supplier of knowledge and strategies. One such participant discussed knowledge and strategies that she learned from a licensor in charge of her program as the most powerful and useful to her in her classroom. In contrast, all the participants working in center-based programs talked about the roles of supervisors, colleagues, and teams for providing support and information when they were struggling with certain children in their classrooms. The dynamics of seniority, management, and longevity in a position seemed to have an impact on the most trusted voices in the program for the participants, and, again, they described the most useful to them.

Relationships and collaboration are important aspects of PD for early childhood providers. Colleagues, mentors, and specialists are critical support systems and ways for providers to learn new knowledge and skills without access to PD training. The diffusion of innovation theory (Wejnert, 2002) notes the importance of working with others, including their role and status, in helping educators to not only learn new information but be able to successfully implement novel strategies in the classroom. In addition, providers are relying on family collaboration and partnerships to support educators in working with infants and toddlers with special needs. There are benefits to these family-centered and collaborative relationships for families, children, and educators, but early childhood providers need to find a balance in their asks of families in order not to overburden or build distrust.

Theme 3: Change in Beliefs to Change Confidence

Another theme that emerged from the data was how early childhood providers understand how effective PD changes attitudes, beliefs, and sense of self-efficacy in serving infants and toddlers with special needs in inclusive classroom settings. Participants described knowledge that they gained and training that they found valuable, and how this helped improve their own self-confidence. Participants also described the different ways that training had changed their mindsets, viewpoints, or attitudes about working with infants and toddlers with special needs. Some of the participants acknowledged how a certain PD experience was able to shape their belief system, while others spoke about these beliefs as being intrinsic aspects of their personality and not attributed to what they may have gotten out of a training. In either case, the data showed that knowledge-building and how training can impact attitudes both influenced the self-efficacy and confidence of providers to work with infants and toddlers with special needs.

The diffusion of innovation theory (Wejnert, 2002) acknowledges an individual's personality characteristics or 'psychological strength' as another factor that impacts how participants adopt innovation. Wejnert (2002) identifies independence, risk-taking, and self-confidence as some of personality traits that make it easier for individuals to embrace change and novel practices. In this study, some participants also self-identified as being risk-takers or providers who are more willing to try new things that they are learning. One participant noted, "I'm willing to try as opposed to not try, that is just my general nature" when discussing her inclination to adopt innovation. Other participants commented on their attitude towards life-long learning and how that has helped them

work with more challenging children or be willing to try new things. One participant

talked about "wanting to learn more to get better," while another commented on the

importance of "how open you are to changing the way you do something." These

participants acknowledge that they will never know all that there is to know in the field,

and the importance of being open to learning and trying new things to better their own

skills. These different traits, according to the diffusion of innovation theory (Wejnert,

2002) can impact how a participant can learn from PD and be able to translate those new

strategies and skills into their practice.

 Additionally, this study revealed how these personality traits and attitudes lead to

not only more developed knowledge and skills, but also have led to improved self-

efficacy in the classroom. A willingness to learn and take risks leads to providers being

more willing to participate in PD that teaches skills they are looking to immediately

experiment with and implement. As in moving you from not knowing to knowing and

that helps to build your confidence level. The whole teacher approach (Chen & McCray,

2012) addresses providers who can successfully implement new practices may gain self-

efficacy in the classroom and be more open to developing new knowledge in other areas.

In addition, participants also talked about personality traits like patience and

understanding as critical to working with infants and toddlers with special needs. It is the

combination of all these personality characteristics, and what one participant described as

"the whole mindset" of working in inclusive settings, that participants connect to their

improved self-confidence. For example, one participant described what she wanted to

gain from a training as, "Can I meet their needs in the classroom? Am I doing the right

things? Am I good enough?" This participant described not only the willingness to learn, but also hoping that by gaining this knowledge, that she would feel more confident in working with the children in her classroom. For educators, self-efficacy is the understanding that they have the power to teach in a way that meets the needs of the students and that they can control their own behavior and actions in the classroom. Another participant talked about the role of patience in her practice, both with her own learning and limitations as well as with the children. This participant said, "I don't worry as much anymore about having the right answers immediately, because you have to get to learn to work with students… I realize that I don't have to have the answer within 30 seconds, I've taken that stress off of myself." This provider described her overall feeling of being able to successfully work with the children, or her self-efficacy, as a direct result in her mindset of patience with herself and openness to learning. Another participant described the learning process as "moving from not knowing to knowing and that helps to build your confidence level." Vartuli (2005) identified that the strength of positive teacher attitudes determined how much effort an educator will expend on a lesson and their level of perseverance when faced with adversity in the classroom. Personal characteristics, like patience, and attitudes about teaching, like risk-taking, can impact a provider's self-confidence and self-efficacy in the classroom.

The pressing issue for the field of early education is how to develop PD that address changes in attitudes and beliefs to be able to improve teacher self-efficacy. This study showed multiple examples of PD experiences from providers where they felt their mindset or attitudes were impacted by training that they received. Research has

demonstrated that self-efficacy in early childhood providers is influenced by PD training (Hyseni Duraku et al., 2022; Nithyanantham, 2021). The findings of this study confirmed that PD can impact the attitudes of providers. One participated shared that a PD that she attended helped her understand how to "take it slowly, everyone is different…Different kids learn in different ways." Another participant described how knowledge-building about child development and special education can impact a provider's expectations and understanding of behavior. That participant explained,

> You have to learn what is in this field. So that you can feel comfortable with the
>
> kids… Otherwise it's going to be frustrating…because you don't expect them to
>
> act that way. When you learn it, it becomes 'oh, that's why he acts that way.'

What this participant described as comfort, can also be viewed as self-confidence and the understanding that they can support this child once they learn more. Other changes in mindsets that are described in the data were, "not feeling so rushed," "the importance of patience," and "how a child's life at home can affect their life in like a school setting." All these beliefs came directly from PD that participants described and were seen as important take-aways from their learning. Participants were more quickly able to remember these overall mindsets and attitudes about teaching that they learned before remembering specific strategies or pieces of content that they learned. The whole teacher approach (Chen & McCray, 2012) notes that quality PD for educators should address knowledge-building, classroom practices and changes in attitudes with the same focus and energy to better support teacher growth and development. From the examples provided by participants in this study, PD that was effectively able to instill new beliefs

and attitudes about working with infants and toddlers with special needs were the most memorable and effective in growing self-efficacy in early childhood providers.

Theme 4: Ongoing, Systemic Content Related to Special Needs

There were three different themes about the training that early childhood providers perceive that they need that emerged from the qualitative data. First, participants described needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings. They discussed needing skill-building and training around infants and toddlers with certain diagnoses or certain strategies in inclusive settings and their challenges accessing high-quality options. Participants describe minimal access to and experience with PD focused on early childhood special education, even for providers who were working with children with low-incidence conditions or multiple disabilities. Early childhood providers who work in inclusive settings describe some of the content areas or topics that they perceive as the most useful to their own PD. Some of these examples were trainings on specific diagnoses like ASD, or trainings on developmental red flags and milestones, or information on challenging behavior. One aspect of the whole teacher approach (Chen & McCray, 2012) focuses on the benefits of building an educator's knowledge and skills in domain-specific areas. Participants described PD experiences that were both general and specialized, but mostly perceived that they needed more concentrated knowledge and trainings specific to certain common diagnoses or strategies needed to work with infants and toddlers with special needs.

All participants in this study discussed the need for PD topics that are more focused on content related to infants and toddlers with special needs. One aspect of quality PD for educators, according to the whole teacher approach, is topics that are domain-specific (Chen & McCray, 2012). Research shows that PD objectives that are domain-specific provide a more significant basis for selecting content and learning strategies to be included (Merriënboer & Kirschner, 2017). Participants were often able to recall specific strategies that they learned from a PD experience but not learning objectives from specific trainings. For example, one participant detailed self-regulation environmental modifications that she learned about, while another described open-ended art-based activities that she learned about for young children. These examples and classroom strategies were detailed, and it was apparent that the providers had been implementing them in their classrooms. The participants in this study also agreed that PD content and strategies that are less general and more specific to their practice are more applicable to the classroom. Bruno et al (2021) also found that the more focused the PD opportunities, the greater the impact on classroom practice for early childhood providers working with infants and toddlers with special needs. One participant noted that the trainings she had taken about working with children with special needs are "just the same stuff over and over, kind of repetitive." There was also discussion from various participants that some of these workshops were "more general" and "gives you the basics but it wasn't anything in depth." Participants gave examples of topic or content areas that they perceive as being helpful in their practice, such as strategies for working with children with ASD, fine motor development, developmental red flags, or emotional

regulation for toddlers. Participants discussed the domain-specific and targeted trainings that they were hoping to attend in the future that other research has supported as being the most useful for early childhood providers.

When they spoke of the topics and content that they perceive would be helpful, some participants drew upon areas that they had never learned, but most drew upon professional and current experiences with young children. This study demonstrated that the participants were looking for training that was immediately applicable to the children that they were working with as opposed to hypothetically may need in the future. When identifying content areas, most participants would link current children that they were working with and topics that would directly meet their developmental needs. For example, one participant discussed a child in her program with a vision loss and perceived that she needed more training on children with vision loss. Another participant spoke about the number of children in her program with concerns about developmental delays, and asked for a training related to developmental red flags and communicating with parents about these concerns. The diffusion of innovation model (Wejnert, 2002), identifies one aspect of how easily someone can adopt new innovations into their practice as the compatibility between the information and the needs of the individual. According to this model, individuals are more likely to connect with new strategies and practices when they meet their immediate needs. One participant identified, "If I knew ahead of time that somebody was coming in with a special need, any advanced trainings or stuff that I could do ahead of time would be great." Participants described topics and areas of PD that they would be able to instantly utilize, or topics that would prepare them for a

child with a specific need that they knew about in advance. However, this concept is challenging for several reasons. First, many infants and toddlers starting in early childhood settings are so young and are not yet diagnosed or identified as having a developmental delay or special need. Therefore, the process of identification is happening while the child is in the care of the early childhood provider, and they are learning about the child's needs along with the family. Secondly, some of the focused areas that the providers discuss were so specialized (i.e. a toddler with a vision loss) that being able to find that specific topic being offered at the exact time that the child is in their care or about to start in their classroom may be difficult. Thirdly, when providers are only searching for and attending training that is immediately applicable to their current classroom challenges, they are not necessarily developing their skills for other children and families that they will work with in the future. When participants discussed their perceived needs for training specific to infants and toddlers with special needs, they made connections to their immediate needs for development and how to better their applicable skills for the children that they are currently working with.

Another conclusion from this study is that many of the participants who describe topics related to special education confirm that these were not trainings specific to infants and toddlers. Most of the trainings that participants identified were not age-specific for children under 3 years of age, but were either preschool focused or infant through elementary school focused. Only one participant commented on one training that they felt was only focused on infants and toddlers with special needs. The other PD opportunities described either were designed for a wider developmental age range up through preschool

and even elementary school aged children, or were focused on infants and toddlers who were typically developing. Training programs and higher education do not often include the specific information, skills, and strategies for working in inclusive settings or with certain populations of infants and toddlers (Darling-Hammond & Cook-Harvey, 2018; Darling-Hammond, 2006; Francois, 2020). Kaczorowski & Kline (2021) found that teachers with an educational background of general education felt unprepared to work with children with special needs both in relation to social inclusion and instruction. PD can be a tool for early childhood providers to improve their knowledge, skills, and practices for working with infants and toddlers with special needs, but this study showed that they are often unable to find training and support specific to infants and toddlers with special needs.

There remains the question of whether there are quality PD options available on infants and toddlers with special needs, or if early childhood providers are not able to access them. First, this study demonstrated that participants rarely attended PD focused on infants and toddlers with special needs. They often discussed different ways to access trainings, from in-person conferences, to one-time workshops being hosted by other programs, to in-house training offered within their program, to finding synchronous and asynchronous PD options. Participants did not describe challenges with finding PD, just finding PD around infants and toddlers with special needs. Since another finding of this study was that participants are often focused on PD opportunities that are compatible with and support their current needs, there may be trainings available that providers are choosing not to access since it may focus on a hypothetical need that they have in the

future. However, every participant shared experiences with PD related to special education for either wider-age ranges of children or a preschool-age focus, which supports other research that there are insufficient training options in infants and toddler special education.

In this study, early childhood providers described needing on-going, systemic PD focusing on the needs of students with special needs served in inclusive classroom settings. They discussed needing knowledge and strategies for working with infants and toddlers with certain diagnoses, and specific areas of content that relate directly to their current classrooms. Participants also described their access to and experience with PD focused only on infants and toddlers with special needs, as opposed to more general topics or trainings focused on older children. Early childhood providers perceive that they require specialized training to work with infants and toddlers with special needs, and are challenged with accessing PD that meets these needs. In addition to specific PD, participants also describe wanting more technical support from specialists, and connections with experienced colleagues and supervisors to better support inclusive classroom settings.

Theme 5: Technical Support and Collegial Collaboration

The next theme that emerged from the data was that participants perceive that they need direct supervision and strengthened systems of collegial collaboration to meet the needs of students with special needs served in inclusive classroom settings. Collaboration and support were critical in knowledge and confidence building when participants discussed their past PD experiences, and they expressed different ways to

want to continue to connect with colleagues, supervisors, and outside specialists to further their learning. Thus, participants perceived that continued opportunity for teaming and collaboration with others would support their own PD. In addition, the participants were looking for more access to and support from outside specialists or providers with more specialized knowledge about infants and toddlers with special needs. Some participants focused on access to supervision and specialized training, while others believed that they would most benefit from partnering with therapists in their programs to directly support their learning. Collaboration and connection within a professional network were perceived as beneficial for early childhood providers to learn new skills and practices.

All participants in this study identified wanting more contact with others during their own professional learning process. In some cases, early childhood providers would discuss working in small breakout groups during a PD training and the benefits of that collaboration for their learning. Other participants spoke about wanting more access to a team model in their program and being able to connect with other educators to work through challenges. One factor that can influence whether a new practice will be adopted, according to the diffusion of innovation model (Wejnert, 2002) is the ability to learn through collaboration and peer observation. According to Wejnert (2002), when educators are exposed to other individuals who are engaging in new practices and able to observe their successes, failures, and outcomes, it increases their familiarity with the new practice. Therefore, the process of small group learning and being able to work with and observe others can lower any perceived risks from adopting this new practice. When a

program is trying to implement new classroom practices, and providers can observe the successes of their peers, they may be more likely to try new things as well, which is supported in smaller group learning settings and teams. In addition, professional learning communities (PLC's) are another way that programs are working with educators to transfer learning amongst colleagues (Brennan & King, 2022). These PLC's can build teacher capacity by creating communities or teams of providers who are committed to a shared vision of enhancing their classroom practices and strategies, and can foster collaborative problem-solving within programs. PLC's have also been shown to enhance efficacy and practices related to inclusive programs (Brennan & King, 2022). Small group learning, collaboration within a learning team, and observation of peers can be powerful tools for helping early childhood providers learn and adopt new practices in the classroom. Providers are also looking for this support and development to begin within a supervision and training model at the start of their careers.

Many of the participants of this study spoke of their need for improved supervision from mentors and administrators during their onboarding process and continued support. Early childhood providers in this study are seeking more access to supervisory and mentoring relationships for their PD. One participant spoke of her frustration with how new providers are trained in her program, citing her wish for "someone there to train you for 6 to 8 weeks. Or 3 weeks, or 2 weeks or 1 week, a day, something." Another participant discussed how she her program did not give her any formal onboarding, and said "when you have a degree and a certification, I think they think, 'Ok, yeah, you can do this.'" The participants in this study recognized a need for

more formal training for newer providers and more access to continued training for the more experienced educators as well. They discussed wanting more access to individual supervision with mentors or coordinators, and how these connections are pivotal for their own learning. Administrators and supervisors in higher roles play a key role in supporting educators in learning and adopting new practices, and not just through reflective supervision. According to the diffusion of innovation theory (Wejnert, 2002), the status or role of an individual can impact how they adopt innovations, both because higher status positions are quicker to adopt changes and because of the role that supervisors play in institutional coercion. Those professionals with a higher social or professional position, such as directors, supervisors, and licensors, are more likely to implement new practices and strategies and then encourage those that work under them to do so as well. If a program is looking to implement change or enhance the skills of their providers, having information and direct support come from administration can play a role in how providers are able to implement what they are learning. However, in this study, early childhood providers were even more interested support from outside professionals and specialists than those working in their programs already.

A common theme for all providers and what they perceive that they need to support infants and toddlers with special needs was improved and more frequent access to specialists. Even though many participants spoke of the benefits of working with supervisors or experienced peers, every participant noted wanting specific disciplines of therapists and professionals to come in and support them directly. One participant noted, "I wish that there was someone in the daycare all of the time that could help more…a

specialist in autism or having speech pathologists in the center." Another participant talked about her "ideal world," where every few months they would have a therapist "come in, kind of watch the kids and see where they're at and just give guidance." This same provider acknowledged the importance of the specialized knowledge base of outside professionals like this that she does not yet have, and the benefits "to have those resources to come in and just kind of give basic knowledge to staff." For infants and toddlers with special needs in their program who are already receiving specialized or EI services, providers are also looking for more opportunities to collaborate and partner with those teams. One participant, when speaking about a toddler in her program who was receiving home-based EI services for a new diagnosis of ASD, said "I wish that early intervention, the specialists, could come to daycare." Even though EI services are designed to take place in natural environments, like homes, childcare programs, libraries or parks, many programs do not have the same access to the EI team that the family has. In the case of this participant, she explains that the home visits were only happening with the family in their home, and that she hoped that the family would arrange for some visits to happen in her classroom since she felt she was missing out on strategies that would support him. Conversations about collaboration with outside specialists and EI programs are also demanding because it brings up additional challenges with administrative processes in some centers, as well as program budgets for consultations and hiring additional specialized staff. Partnering with an EI program to visit a classroom to work with one child would not be a cost to a program, but hiring an outside therapist or specialist to come in and work with all the children or providers would be outside the

budget options for most center-based and home-based childcare programs. Outside specialists can provide exceptional technical support for working with infants and toddlers with special needs since they have more experience with inclusive settings, and early childhood providers are looking for knowledge and strategies that are applicable to their classrooms. This finding does connect to feelings of self-efficacy and preparedness that early childhood providers have when working with infants and toddlers with special needs. Participants, in asking for support from these therapists with specialized knowledge, appear to be concerned about their own skills to work in these inclusive settings and see individuals with more specialized training and knowledge as being the ones who can support these children the best. Like the desire for connection with both peers and administrators to support learning, early childhood providers want more collaboration and practical support from therapists and professionals with extensive backgrounds in special education.

All participants in this study acknowledged the important role that connections with others have in their own learning and development. Early childhood providers are looking to connect and collaborate with their colleagues, both in classroom settings but also within PD training. By working with peers and colleagues in large and small group learning environments, they can observe their peers, problem-solve together, and learn new ideas from individuals with different experiences. Providers also perceive that they need improved access to the expertise of outside specialists and more training and support from supervisors. All these connections provide both technical skills and strategies to implement, but also collegial and peer support for working with infants and

toddlers with special needs. Connections with others may be one factor for how a provider is able to adopt new strategies and skills from PD, but the participants also identified other influences on how they are learning and implementing new practices in the classroom.

Theme 6: Factors Influencing Adoption

The final theme in this qualitative study looked at how early childhood providers described personal and teaching experiences, as well as PD design and content, and the influence on supporting adoption of strategies and practices. The end goal of PD should be supporting teachers to learn new ways to work with children, and how to take knowledge and strategies and be able to improve their classroom practices. Participants shared what helps their own learning, what leads to adopting new classroom practices, and the different factors that lead to implementing strategies that they are learning from PD. In addition to considerations for group learning and specific content, participants shared different ways that PD can be designed and implemented in ways more congruent with how they learn skills and can implement new practices in the classroom.

The participants in this study overwhelmingly discussed the connection between their need for visual and kinesthetic experiences to learn new material and the impact that hands-on learning has for being able to implement new classroom practices. The format of the PD experiences that early childhood providers described were varied, but all providers indicated that they were looking for more experiences with hands-on learning, opportunity to practice strategies, and time to engage with the material in a variety of ways. Participants talked about their adult learning styles, and how they best learned new

information. Overall, participants shared that the most useful and memorable PD that they utilized was designed as multidimensional and gave them time actively 'do' versus passively listen to information. To create PD opportunities that create change and encourage providers to implement new practices in their classroom, they report needing time to practice and engage during the training, before being sent off to implement the strategies in their own classroom. Participants acknowledged the importance of matching their adult learning style with the training that they received, and how it can influence being able to successfully adopt new practices. In addition, participants also spoke of the importance of applicable strategies and skills to changing their practices, as opposed to PD focused only on knowledge-building.

Early childhood providers in this study perceive that, to be successful in inclusive settings, they need to learn specific and applicable strategies. The whole teacher approach (Chen & McCray, 2012) recommends that quality PD incorporates knowledge-building, attention to beliefs and attitudes, and provides strategies and practices for educators. When participants reflected on useful PD training that they had in the past and future PD that would be the most helpful, they prioritized learning specific strategies. They describe already having access to training meant to build background knowledge or teach content, and less chances to learn the actual classroom strategies that they can turn around and implement in their program the next day. Many participants requested training topics that were instantly applicable to the children in their programs at that given time and their immediate needs. When these providers felt unprepared or presented with lower self-confidence to work with the children in their classroom, they were seeking the tools and

strategies that they could employ right away. They were looking for useful take-aways that felt applicable to the infants and toddlers that they were working with, not strategies that may be hypothetically useful for children that they may work with in the future. By teaching specific strategies and allowing providers to practice these strategies, the participants envisioned more seamless adoption of these new practices to their classroom.

The process of learning specific practices and being able to practice their implementation can also help to bridge the gap between knowledge building and growth in the classroom. Many participants reflected that they have learned the most strategies from previous experiences with other children with special needs in their programs. These personal and professional experiences gave them chances to try implementing new strategies, observing their success, being able to make modifications, and learning from their mistakes. Many of the experiences that participants had with PD were more focused on building a knowledge base on a topic, and then their true learning was happening through every day professional experiences with different children in the classroom. However, when PD is designed with adult learning styles in mind and gives opportunity for hands-on practice, that training can provide chances to learn both knowledge and from experiences. High-quality, multidimensional PD experiences for early childhood providers can provide both experience and knowledge when it is designed to promote hands-on learning and strategy-building, helping providers become more confident to implement new practices in their inclusive classrooms.

Limitations of the Study

This basic qualitative study was designed to explore the experiences and perspectives of early childhood providers regarding PD opportunities to support their work with infants and toddlers with special needs. One limitation of this study was recruitment of participants that matched the inclusion criteria of the study. It was important to enroll and interview participants who were currently working with infants and toddlers in inclusive settings and had experiences with PD that they could recount. Many of the individuals who were initially interested in participating worked in classrooms with much older children or worked in sub-separate environments for children with special needs, not inclusive settings. Many potential participants did not respond to requests to set up interviews or were found to not meet eligibility criteria at the start of the interview. Recruitment was also conducted nationally via professional groups for early childhood providers on LinkedIn ™ and Facebook ™ groups, and I discerned many responses to the SurveyMonkey ™ pre-screener link to be imposters based on responses to eligibility criteria. An analysis of journal notes and interview transcripts was conducted to ensure the study measured what it intended. The data were coded into categories and themes, and the process was described in detail so that the study could be replicated in other contexts. Finally, I tried to remain as objective as possible by analyzing the data multiple times, conferring with outside experts on my committee, and reaching out to thought partners to minimize potential researcher bias.

Recommendations

The aim of this study was to understand what training early childhood providers report they have had, and what training early childhood providers perceive that they need, to support infants and toddlers with special needs in inclusive settings. An understanding more about the experiences and perspectives of could improve the training and coaching for early childhood providers and increase the availability of inclusive settings for infants and toddlers with special needs. In exploring the experiences of early childhood providers, I identified several themes from the data about how PD can be designed and implemented to better support inclusive classrooms for infants and toddlers.

One recommendation from this study is to further research how PD is being designed and offered to early childhood providers on both a state and national level. Every state has different requirements for early childhood providers both for certification and qualification for their role, and required PD hours that these providers need to participate in annually (Sutcher et al., 2019). These differences in licensing, credentialing and expected education levels highlights challenges for training early childhood providers and the complexity of working with infants and toddlers (Kuchy, 2021). In addition, there is limited understanding in the field about the correlations between positive outcomes for infants and toddlers and the mode and frequency of delivery of PD (Brunsek et al., 2020; Burris, 2020; Jensen & Iannone, 2018). Further research on how states can centralize training and development for early childhood providers could provide more universal support for programs and providers. In addition, looking at other ways that providers can be nationally licensed and credentialed, where there is more consistent training and

development for all providers, can give providers more access to support and knowledge to support all children in their programs. Further research on how national and state governments support the field of ECE will provide additional data on how to develop training and PD that is more universal and focused on working with children with diverse needs.

Another recommendation of this study is to develop PD for educators that is more in line with principles of adult learning and self-efficacy. For many of the participants of this study, their descriptions of how they learn best and the things that they need as an adult learner were not in line with their experiences of PD in the field. Most of the participants described wanting PD that was multidimensional, that provided specific and easily applicable classroom strategies, and that allowed for hands-on learning opportunities. Participants shared the importance of collaborating with peers, being able to work with real-world examples, and having access to facilitators for direct support. When facilitators and programs are developing PD to support educators, the model of one-time, lecture-based workshops that are geared towards knowledge-building is the most experienced format for providers. However, providers shared that they were most successful implementing new strategies when they were given time to engage with content in a collaborative and hands-on way. PD was perceived as being more effective when there was a link between knowledge and practice. By ignoring principles of adult learning, facilitators are creating PD opportunities that may pass on skills and knowledge, but overlooking how educators increase self-efficacy and build new strategies to work with infants and toddlers with special needs. By understanding the experiences of

providers and how they learn as adults, PD can be designed to be more effective in generating change and developing confident and prepared educators.

The experiences of early childhood providers working with infants and toddlers with special needs and their perceptions of the support and PD that they need should inform how training is created, how it is implemented, and the system for ensuring that all providers feel prepared to work in inclusive settings. By understanding how providers need to be supervised, trained, and supported, based on previous experiences, individual programs, state, and national governments can create PD and training opportunities that support how provider implement new classroom practices. Research on the design and implementation of PD for early childhood providers will help further professionalize the field of ECE and ensure that families have quality options of care for their children with special needs. The implication of this study is to create quality options for early childhood providers that make them feel better supported and prepared to work in inclusive classroom settings.

Implications

This qualitative study provided an opportunity to learn directly from early childhood providers about their experiences with and perspectives of PD for working with infants and toddlers with special needs. One of the purposes of this study is to explore these perspectives to create recommendations for more quality PD options to support providers. Based on the themes that emerged from the data, one of the implications of this study is that creating high-quality PD training is more complicated than presenting good content or topics directly related to special education.

Based on the experiences and perspectives of the participants, providers were able to make changes to their practice and better their skills as educators when they were able to connect with their colleagues, when the information was presented in visual and kinesthetic ways, when the PD also addressed their beliefs about education, and when they were taught applicable and relevant strategies for their classroom. Creating PD that best supports providers to work with infants and toddlers with special should incorporate all these aspects of adult learning and development, which supports the whole teacher approach (Chen & McCray, 2012). This approach promotes PD programs that prepare teachers and providers to be more versatile and adaptable educators (Chen & Chang, 2006). This conceptual framework addresses the different layers of supporting early childhood providers, not just knowledge-building, but also how PD can address attitudes, and the connection of knowledge to practice. Based on the findings of this study, participants connect with the importance of the interconnectedness of these areas of learning and how they relate to their own PD as educators. These findings were in line with the conceptual framework of the study, but there were other themes that emerged from the data that were not predicted.

The most surprising finding from this study was the reliance on families and colleagues to provide support and strategies to work with infants and toddlers with special needs. In early education, providers and educators are encouraged to build relationships with families. Providers are encouraged to see parents and caregivers as the first and most important teachers of infants and toddlers, and to collaborate with them as partners in caring for and educating young children. This study found that before

accessing training, supervision, or outside research, early childhood providers are turning

to families to teach them how to work with their infants and toddlers with special needs.

In the field, PD and training should complement family partnerships, and providers

should be seeking information and strategies from PD, supervision, and other resources in

addition to teaming with families and caregivers. A reliance on families can create an

undue burden on parents and caregivers and can possibly even build distrust in the

expertise of the provider. Research has shown that for families with infants and toddlers

with special needs, there are still significant barriers to finding high-quality, inclusive

programs that are prepared to support their children (Weglarz-Ward et al., 2019). PD and

training should help support providers to create inclusive programs where infants and

toddlers with all levels of need can be supported, and families can find the high-quality

childcare options that they need. In addition, by encouraging access to PD, it can promote

attitudes about life-long learning for early childhood providers, so they feel more

confident seeking help, more comfortable with the vulnerability of learning new things,

and knowing how to access resources outside of the families they are working with.

The implications of this study are that providers are that providers can adopt and

implement new classroom practices when their learning is supported through domain-

specific and multidimensional training that is congruent with adult learning models. PD

can provide opportunities to connect with and learn from others, to build knowledge and

skills, to teach strategies, to change attitudes, and to experience and practice. In addition,

this study gives more information about the role of family partnerships in inclusive

programs, and how early childhood providers can find a balance between collaborating

with families and accessing PD to build their feelings of self-efficacy with infants and toddlers with special needs.

Conclusions

By understanding the experiences and perspectives of early childhood providers, programs and leaders can develop effective PD and training that supports and develops educators. Without appreciating the role of adult learning, the impact of attitudes, and the importance of collegial collaboration, PD cannot support new innovations in the field of early childhood. Training and supporting early childhood providers and building their confidence to work in inclusive settings creates equitable classrooms for infants and toddlers with special needs. PD designed for early childcare providers is important for improving their learning, attitudes, understanding and practice, and therefore impacting the environment and outcomes for the infants and toddlers in their care (Ackah-Jnr & Udah, 2021).

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