CHILD CARE PROVIDERS' PERCEPTIONS OF THEIR TRAINING NEEDS AND BARRIERS TO IMPLEMENTATION

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DEDICATION

To my amazing husband, Kris Herrin, and my two beautiful girls, Caitlyn, and Sydney. For never giving up on me.

In Memory of my parents, Roger Vargas, and Mary Helen Vargas, thank you for loving me and making me who I am.

And in Memory of Dr. Susan Eitel, I would not have taken this chance if you had not suggested I go for it.

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ABSTRACT

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The purpose of this quantitative study was to examine what kinds of knowledge child care providers perceive they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. The study used a MANOVA to identify what the child care providers perceived their level of knowledge on child development, what knowledge they deemed most needed in child development trainings, and what barriers they feel make the biggest impact their ability to implement the training. A chi-square was used to determine if there were group differences in where they prefer to receive their trainings. While none of the MANOVAs or the chi-square suggested any significance related to years of experience or education level, the data still supported the need for understanding the teacher's perceptions on these topics.

TABLE OF CONTENTS

Pages

LIST OF TABLES

CHAPTER I

INTRODUCTION

Currently, in the United States, it is estimated that 60% of children under the age of five are enrolled in a child care program (Corcoran & Steinley, 2019). In the state of Texas, it is projected that approximately 65% of children potentially need child care services, and this costs Texas families, on average, about 10% of the family's annual income (Child Care Aware, 2019). Haynie (2019) suggested that, overall, most American families struggle to have access to child care. Research has shown that high-quality child care is linked to numerous positive outcomes for children, such as lower rates of incarceration, and increased employment outcomes. However, these positive outcomes are negated if families cannot find access to child care, and research supports that families do struggle to have access to high-quality child care (Haynie, 2019). The Center for American Progress (Child Care Aware, 2019) identified that, while states have standards for child care center licensing, quality varies as state requirements vary. The teachers' professional development and curriculum are one of the areas that differ from state to state, with some requiring very little in the form of education and training and others requiring more (Child Care Aware, 2019). High-quality early childhood education is getting increasingly harder for American families to find (Workman & Ullrich, 2017). It is essential to understand the training and education needs of child care providers as they relate to high-quality child care settings.

While researchers understand that training is a vital part of helping the classroom, scholars do not fully know what child care workers are looking for when they choose their professional development trainings (Brownlee & Berthelsen, 2006). Brownlee and Berthelsen (2006) reviewed the existing literature on child care providers' classroom management. They concluded that child care workers seem to rely more on their personal beliefs than on theoretical knowledge when managing their classrooms. Brownlee and Berthelsen (2006) concluded that child care workers should be interviewed to determine the framework for how their personal epistemology impacts their choices in the classroom. Brownlee et al. (2008) set out to fill a gap in the current literature on epistemological beliefs. They interviewed 17 students in their first or second year of the Australian Diploma of Children's Services program to examine how epistemological beliefs impacted their pedagogical views. The study found that these student teachers reported that their personal epistemology changed their opinions on their own learning, as well as their beliefs on how children learn. Also, Brownlee et al. (2008) identified that further research should identify whether higher education plays a role in their personal epistemology. These findings concur with those of McMullen et al. (2006), who concluded that child care workers' perceptions played a significant role in how they handled their classes, suggesting that it is essential for researchers to understand the benefits of child care training on classroom management.

Child care administrators and parents depend on child care providers to have the training and skills needed to manage their classrooms effectively (Lee & Choi, 2008);

therefore, it is vital that we understand how they choose their professional development opportunities, how they prefer to get this training, what types of trainings they feel are most useful, and what barriers (if any) exist in applying what they have learned in these trainings.

Another critical aspect of child care provider professional development, according to Sheridan et al. (2009), relates to the less obvious aspects that influence professional development for child care providers and how these trainings may benefit the children in their classrooms. Sheridan et al. (2009) further state:

> It is important to offer research directions associated with the *processes* underlying professional development—that is, areas in need of investigation that can inform the early childhood education field in terms of *how* professional development efforts exert their influence and produce meaningful change in practitioners' skills, behaviors, and dispositions—as compared to a meta-analysis or comprehensive review of the research literature on the effects of specific forms that professional development takes (p. 379).

This focus on underlying processes may be revealed through an examination of what types of trainings child care providers perceive as most useful to them and through which methods they prefer to gain this knowledge. Barriers to implementation are also integral in understanding the underlying processes associated with professional development in this population.

Statement of the Problem

Understanding child care providers' knowledge of topics related to child development is key to helping provide strong trainings. Education varies dramatically in child care centers. The state of Texas does not require any formal training to work in the class. The minimum requirement for formal education is a high school diploma (Texas Department of Family and Protective Services [Texas DFPS], 2016). In addition, experience level varies from center to center as the field of child care has a high turnover rate because of low pay and often little to no benefits (Badri et al., 2016). The existing literature does not shed adequate light on what child care workers desire to learn, their choice for training source, and the barriers to implementation of the knowledge gained in trainings in their classrooms (Goble & Horn, 2010; Heisner & Lederberg, 2011; Sheridan et al., 2009). The literature suggests that trainers, administrators, and future researchers need this information to understand how teachers are processing the information they are receiving in their trainings. Also, researchers need to understand what might be preventing child care providers from applying what they have learned in their classrooms. This will allow for ways to identify these barriers, improve teachers' base knowledge, and provide them with the knowledge they desire for their classrooms in a format that they prefer.

Statement of Purpose

Therefore, the purpose of this quantitative research study was to examine what kinds of knowledge child care providers perceive that they need, how they prefer to

receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. The study will support previous research that has identified the need to promote training on child development to child care providers.

Research Questions

This quantitative study examined the following research questions:

RQ1: Are there differences in child care providers' perceptions of their level of knowledge on child development by education or experience level?

RQ2: Are there group differences in the types of training child care providers' choose for themselves by education or experience level?

RQ 3: Are there differences in child care providers' perceptions of the usefulness of their training by education or experience level?

RQ 4: Are there group differences in the child care providers' perceptions of barriers to implementation of their training by education or experience level?

Theoretical Framework

This study used two theories to provide the theoretical framework for this research on teacher perspectives of their training: Bronfenbrenner's ecological theory and Bandura's social learning theory. Bronfenbrenner's (1979) ecological systems theory identifies five systems that shape a person's environment, from the individual through culture and time. Bandura's (1997) social learning theory focuses on how individuals

learn in the absence of direct reinforcement in the form of punishments, reinforcers, or rewards (Bandura, 2012). These two theories guided the research perspective in understanding the impact the environment plays in child care provider's perceptions of their trainings.

Bronfenbrenner's Ecological Theory

Bronfenbrenner (1979) identified five nested systems that influence an individual's developmental trajectory: the microsystem, the mesosystem, the exosystem, the macrosystem, and the chronosystem (Bronfenbrenner, 1975, 1981; Bronfenbrenner, & Morris, 2006). The microsystem consists of the individuals' direct interactions, such as their family, their school or work environment, or their church (Bronfenbrenner, 1979). When applying the microsystem to adults, it could include a spouse, their children, their own parents, or their co-workers. When thinking specifically about child care providers, this could include their center administration, the children in their classroom, their co-workers, and the parents of the children in their classroom. The bi-directional relationship for this system is the strongest among all the levels, and the people at this level have the greatest impact on the development and perspectives (Bronfenbrenner, 1975).

The mesosystem relates to the relationships between an individual's microsystems (Bronfenbrenner, 1979; Bronfenbrenner, & Morris, 2006). Examples of this system for children can include their parent-teacher communication. When applying this to adult child care providers, this system could consist of the balance between work and family life. This system offers the challenge of competing belief systems, which can impact an

individual's interactions in each microsystem and overall development (Bronfenbrenner, 1979; Bronfenbrenner, & Morris, 2006).

The exosystem refers to contexts in which the individual does not have direct interaction but affects their development in indirect ways. Bronfenbrenner (1979) explained that while the individual does not have direct contact with the people or systems at this level, it can impact them both negatively and positively. In young children, this could be the parent's workplace or the availability of safe places to play in the community. When applying this concept to child care providers, the center's owners or advisory board would be an exo-level factor, in that the provider does not interact directly with these entities. Still, decisions made by these individuals will impact the child care provider indirectly.

The macrosystem involves the rules set up by an individual's religion, culture, and/or government (Bronfenbrenner, 1979; Bronfenbrenner, & Morris, 2006). This outermost layer can influence an individual's development indirectly through its impact on all the other layers in the ecological system. Examples of macro-level factors include laws, customs, and philosophical foundations, like individualism or collectivism, in the society in which the individual is developing. When applying the macrosystem to child care providers' contexts, one would consider state and federal laws governing child care programs, as well as societal attitudes about gender roles, women in the workforce, and society's responsibility to young children.

Bronfenbrenner (1981) introduced the chronosystem later in his career to connect the importance of time in an individual's development. Bronfenbrenner (1981) used the chronosystem to explain gaps in the ecological system when large life events occur in an individual's life and create a major shift in the other layers of the system. When applying this concept to child care providers, one might consider the influence of history on societal attitudes about gender roles, attitudes about child care providers as a profession, and the importance placed by society on early childhood as a key developmental stage. This final layer influences how the child care worker will react to the changes happening around them create a need for the child care worker to learn new ways to adapt to their environment (Bronfenbrenner, 1981; Bronfenbrenner, & Morris, 2006). This theory will provide the basis for understanding the role environment plays in the child care provider's knowledge base, choice in trainings and barriers to implementation.

Bandura's Social Learning Theory and Self-efficacy

Bandura (1977) identified that cognitive development and long-lasting learning takes place best in a social environment. Often this type of education is done through direct observation and mentoring. Bandura (2012) discussed how self-efficacy impacts a teachers' ability to learn and manage their class. Bandura (1977) stated that a person's belief system could be changed with the direct observations of a successful alternative to their belief system. Through this observation, an individual may develop their self-efficacy. Bandura (1995) described self-efficacy as a person's ability to manage a situation based on their perceptions of their capabilities. These believed capabilities are

created by what they have learned through direct observation. Bandura proposed that individuals determine their success based on beliefs they have observed themselves (Bandura, 1995). This personal belief system can play a role in how individuals set goals and how a person approaches their education. A person's self-efficacy is shaped by the people and situations observed throughout their life. Success and failures form a person's self-efficacy and can impact an individual both positively and negatively (Bandura, 1995; 2012).

Bandura (1995) described four ways self-efficacy can be shaped, including mastery experiences, vicarious experiences, social persuasion, and emotional and psychological reactions. According to Bandura, each of these experiences contributes to a person's self-efficacy in unique ways. For example, *mastery experiences* are the most influential way for a person to build self-efficacy, according to Bandura. These experiences require the individual to continue to work toward success and to be willing to do whatever it takes to succeed. When success is met, the result is positive self-efficacy. Bandura (1995) acknowledged that success does not always come easy and highlighted the importance of these trials by building a strong sense of self-efficacy.

The next experience is called *vicarious experience.* Bandura (1995) described this as a person seeing someone in a comparable situation meet success, leading one person to think that if that other person can achieve their goals, then they can achieve their goals, too. Bandura theorized that individuals look for models that have similar attitudes and beliefs as them but are more proficient in specific categories. It is important to note that

these vicarious experiences can go both ways. Bandura (1995) proposed that if a person observed an individual they see as similar to themselves fail at a task, it could impact their self-efficacy negatively.

Social persuasion, as another way to build a person's self-efficacy, was proposed by Bandura (1995; 2012). Social persuasion is defined as society's presumptions, both negative and positive, and how these presumptions influence how a person views their situation (Bandura, 1995; 2012). Lastly, Bandura (1995) proposed that self-efficacy is influenced by *emotional and psychosocial reactions.* The example used by Bandura to explain this concept relates to an athlete who may feel a sense of insecurity or fear before having to compete. Bandura theorized that this insecurity would impact his or her performance at a higher (or lower) level depending on their already established self-efficacy (Bandura, 1995; 2012). This could be applied to an insecure child care provider and their ability to manage their classroom with this type of insecurity. Understanding the child care provider's self-efficacy could help understand their choices in training and how they perceive the trainings.

In summary, both of these theories offer a way to conceptualize how an individual's environment can directly impact how a person views, how their environment can influence them directly and indirectly, and how these things interact to affect one's ability to learn information and successfully meet challenges. These two theories provided the theoretical framework for this research study.

Definitions of Terms

The following operational definitions were used for this study:

- *Accreditation (NAEYC, NAC, etc.).* Centers that are recognized for offering exceptional care and educational experiences, developmentally appropriate practices, and services to help working parents (National Association for the Education of Young Children, 2011).
- *Barriers to implementation.* Gable and Halliburton (2003) identified barriers to implementation as anything that keeps the child care provider from using the training information they learned in their classroom.
- *Child care center.* A licensed facility that cares for seven or more children during a less than a 24-hour time frame. This is located in a commercial building and is not in the registered owner's home (Texas DFPS, 2016).
- *Child care provider*. A provider of non-residential child care services that includes all center-based, family-based, and in-home child care services. They receive compensation for the services they provided for the children. They operate under state law and comply with applicable state and local requirements regarding all child care services (Bredekamp & Copple, 1997).
- *Computer-Based Training (CBT).* CBT is a web-based training tool used to educate professionals on essential information related to their profession (Lee & Choi, 2008).

- *Developmentally Appropriate Practices (DAP).* NAEYC identifies DAP as practices teachers use in the classroom to ensure the activities the students are using are at the child's developmental age that the teacher is setting goals for the children that are reachable but offer the child an opportunity to continue growth (Bredekamp & Copple,1997).
- *Early Childhood.* NAEYC identifies early childhood at children from infancy to 8 years of age (NAEYC, 2011)
- *Education.* Texas DFPS (2016) identifies education as a high school diploma or higher. This is considered formal education and is different than professional development/training.
- *Experience level.* Texas DFPS (2016) identifies experience as the number of years a child care provider has worked in the field of child care.
- *Face to Face Trainings.* Preschool teacher training that takes place where the teacher is physically present at the training event.
- *Infant*. Texas DFPS (2016) identifies infants as a child from birth through 17 months.
- *Mentorship Trainings.* Training that involves a more experienced teacher providing their knowledge and experience in the classroom to help train newer classroom teachers.
- *NAEYC* – The National Association for the Education of Young Children.

- *Preschooler.* Berger (2008) defines preschool as young children between the ages of 3 and 5. Teachers who teach this age group are often identified as preschool teachers (Berger, 2008).
- *Professional Development.* It is defined as the training, or additional instruction teachers and professionals receive to maintain the needed knowledge work in their profession.
- *Self-efficacy.* Bandura (1977) describes self-efficacy as a person's belief system that could be changed with direct observations of a successful alternative to their belief system.
- *Toddler.* Texas DFPS (2016) identifies a toddler as a child from 18 months to 35 months.
- *Training/CEU/Professional Development.* Depending on the organization, training can be identified as a continuing education credit (CEU) or professional development. These three things are classified as classes or seminars that promote new knowledge or required knowledge for child care providers (Child Care Aware, 2019; NAEYC, 2011; Texas DFPS, 2016).

Delimitations

This research study examined the perceptions preschool teachers have regarding the training they receive. The following delimitations were used for this study.

1. Participants were child care providers in the state of Texas.

2. Participants were at least 18 years of age.

Summary

This study examined child care providers' preferences for training and perceived barriers to implementation of what they learn in those trainings in their classrooms. This study was built on the current literature on the importance of training child care workers and addressed child care providers' perceptions of their knowledge, their desired knowledge, the types of training they preferred, and barriers that prevent them from implementing what they have learned in their classrooms.

CHAPTER II

LITERATURE REVIEW

It is important to understand how early childhood education has changed in the United States over time. This includes understanding how the various systems in a child care provider's life have evolved over the years to create the current trends in child care. Historians have identified women entering the workforce as one of the factors that led to the need for non-parental care of children (Workman & Ullrich, 2017). As the demand for and use of non-parental care increased, it became essential to address issues related to quality and type of care that children were receiving outside of the home (Clifford & Crawford, 2009). As early childhood education took form in the United States, teacher training took on various forms during the early inceptions of early childhood education (Miller, 2013).

History of Child Care/Preschool Education in the United States

As early as the 1600s, education was a part of the United States' culture (Clifford & Crawford, 2009; Lascarides & Hinitz, 2013; Miller, 2013). William Penn, the founder of Philadelphia, used what he termed his "Holy Experiment" in Philadelphia and introduced one of the first non-parental child care options (Miller, 2013). Penn was inspired by the Society of Friends that encouraged the education of all boys and girls, regardless of race or religion. Penn hoped to help the children learn life skills and learn to read and understand the bible (Miller, 2013). On the other side of the country, California

(while still under Spanish rule) offered free public schools for children, one of the first free public education systems, paid for through taxation (Clifford & Crawford, 2009).

Economic changes affected how children were educated throughout U.S. history. In the early years, children were required to help the family at home in agricultural roles. Reading was used to help them understand the bible, and education was more evangelical to help instill Christian values in the children (Lascarides & Hinitz, 2013; Miller, 2013). However, after the Civil War in the United States, urbanization and the industrial movement created change in the education of children (Lascarides & Hinitz, 2013). With the industrialization of the United States, there was an increased need for non-parental child care (Couse & Recchia, 2015). As parents began working in factories and not on family farms, the child no longer held these agricultural roles on the farm. Some older children joined their parents in the factories, but small children needed someplace safe to wait for their parents while their parents worked (Clifford & Crawford, 2009).

Fredrick Froebel's "kindergartens" offered non-parental child care to keep children and to help educate the poor. This provided the opportunity for the possibility of life outside of the factory for children (Lascarides & Hinitz, 2013). This was important because, during each World War, many families survived on factory jobs, where both women and children held jobs that were traditionally held by men. Once each war concluded, and the men returned from the war, most women and all children lost these jobs to the returning soldiers (Couse & Recchia, 2015). Another contributing factor in the increase in the need for these kindergartens related to the large number of immigrants

coming over from Europe after each war, along with their children. These already established kindergartens were viewed as an avenue to indoctrinate these immigrant children into the United States (Lascarides & Hinitz, 2013).

Once education was identified as a safe place for children to attend and child labor laws prohibited the employment of children in factories, the need for more public education became necessary (Couse & Recchia, 2015). As early childhood education evolved, parents and lawmakers began looking at the quality of this early childhood education, in addition to its safety (Clifford & Crawford, 2009)

Quality of Child Care in the United States

Child care quality has changed over the years, and the ever-changing definition of *quality* is part of that reason. Katz (1993) discussed the four perspectives of *quality* as it related to early childhood education and identified that *quality* is a relative term. The four suggested perspectives included looking at the perspectives of each of the following stakeholder groups: researcher/professional, the parents, the staff, and the actual child (Katz, 1993). Ceglowski and Bacigalupa (2002) used Katz's (1993) perspectives to identify how the seven most commonly used quality tools to determine how to define *quality* in the child care center. The seven tools Ceglowski and Bacigalupe (2002) reviewed included: (a) The Early Childhood Environment Rating Scale-Revised (Harms et al., 1998); (b) Assessment Profile for Early Childhood Program (Abbott-Shinn & Sibley, 1998); (c) Caregiver Interactions Scale (Arnett, 1989); (d) Observational Record of the Caregiving Environment (National Institute of Child Health and Human

Development, 1996); (e) UCLA Early Childhood Observations Form (Stipek et al., 1992); and (f) Parent and Teacher Questionnaire, Interview, and Surveys (Ceglowski & Bacigalupe, 2002). A review of the tools suggested that the tools commonly used to focus on the definition of *quality* comes from a researchers' perspective and not from the parent or child perspective.

Quality Defined

Researchers have studied quality in terms of structural, process, and adult work environment quality (Phillips & Howes, 1987). Structural quality refers to features of care that are considered the baseline for quality care, such as child-staff ratios, square footage per child, record-keeping, the nutritional value of menus, and safety features, to name a few. These are frequently easily observable and often focus on child care licensing. Phillips et al. (1991) identified process quality refers to the daily experiences of children in care, such as child-teacher interaction, child-child interaction, and the types and variety of activities available. Lastly, the adult work environment addresses child care providers' wages, benefits, ability to take breaks, access to a child-free break area, and professional development opportunities (Phillips et al., 1991). Data from the Cost, Quality, and Child Care Outcomes Study (Helburn, 1995) revealed how child care centers structured their programs. Issues explored included whether or not the centers used state or federal subsidies, what the teacher requirements for employment were, teacher wages, and the impact of the child care center on the community. Whitebrook's (2003) study regarding cost quality and the outcome determined that a center's financials

play a role in how the center can structure the environment and setting. This included the ability to provide child care providers with a livable wage, benefits, and professional development opportunities. In addition, the author stated that centers that require the minimum of a Child Development Assosciates (CDA) degree for their employees have higher standards and stronger processes for hiring their child care providers than those that did not (Whitebrook, 2003). The structure of the classroom, curriculum, and training is an important aspect of quality in the child care center. Pianta et al. (2016) suggested that teacher training and student-teacher interaction play the largest role in quality. The researcher supports the need for child care centers to have a better understanding of how the child care provider views their trainings and how their work environment may play a role in their ability to implement these trainings (Pinata et al., 2016; Whitebook, 2003).

Educational Requirements

In keeping with these discussions of the three conceptualizations of quality, trends in child care research have suggested that increasing educational requirements for child care providers may improve child care quality. However, many states have not made these adjustments in the minimum level of education required for child care providers as part of their minimum standards for licensure of child care programs. Labor and market trends suggest that this may be since to make increased education for child care providers a requirement, child care centers will need to increase the cost of tuition to pay the child care providers a wage in keeping with their educational attainment (Phillips et al., 1991). Greenberg (2007) discussed the strategies the United States was using to meet the needs

of parents who need child care. Greenberg (2007) highlighted the need for child care policies that provide working parents with affordable child care options. This includes providing child care centers with the needed funding to pay for quality child care providers (Greenberg, 2007; Norton et al., 2018), but this is still not a reality in most states.

Child Care Standards

Norton et al. (2018) discussed what standards care child care programs should include attaining a high-quality child care environment. NAEYC (2011) has established 10 program standards that promote quality and are used in NAEYC accreditation. Quality centers need to include positive relationships, quality curriculum, quality teaching, regular assessment of child progress, promotion of health, monitoring of staff competencies, preparation and support, families, community relations, physical environment, and leadership and management. NAEYC (2019) accreditation standards require that the majority of teachers on staff in the program have CDA degree or higher. Also, the child care center must provide ongoing training for their staff. Norton et al. (2018) stated that NAEYC guidelines help families determine what choices to make when choosing a quality child care center. Teacher training is an essential aspect of both process and adult work environment quality, and more is needed to understand how teachers choose trainings and what prevents them from applying what they have learned in their classrooms.

Influences on the Quality of Child Care

Assessments of State Licensing

Child care centers in the United States are required to meet state licensing requirements, which vary from state to state (Child Care Aware, 2019). Since each state has varying requirements for programs operating within its borders, the quality of child care from the state to state also has a wide variation (Child Care Aware, 2019). To build a unified definition of quality across states, Zellman and Perlman (2008) created the Quality Rating and Improvement System (QRIS) to offer a way for the states to work together toward this effort. The purpose of the QRIS was to provide parents and other stakeholders in early childhood education a more transparent quality rating system (Zellman & Fiene, 2012). The QRIS rating system reviewed program standards, support for programs and practitioners, financial incentives, quality assurance, and monitoring, and consumer education. With this information, the QRIS rating system would help set goals, monitor performance, and evaluate how child care centers where maintaining quality based on the feedback from the survey (Zellman & Perlman, 2008; Zellman & Fiene, 2012).

QRIS Implementation

As of January 2007, 14 states had implemented the QRIS as the standard for the evaluation of child care quality throughout their respective states. At that time, Zillman and Perlman (2008) conducted in-depth interviews with five of the states that implemented the QRIS to address what theory helped develop the system, what

components of quality they found in the QRIS, what challenges they faced when designing the system, and what lessons they learned from the process. Through 20 telephone interviews conducted from February of 2007 to May of 2007, the researchers interviewed four key stakeholders: the employees at the state department that were responsible for child care programs, QRIS administers, child care providers, and representatives of local organizations involved in child care (Zillman & Perlman, 2008). The researchers concluded that as the QRIS ratings became published, parents used the ratings to determine which center they could afford with the highest rating. This resulted in centers volunteering to participate in the QRIS to increase their chances of having parents consider them for non-parental child care. Zillman and Perlman theorized that as more centers participated in the QRIS, the higher the quality levels would be in participating centers, which subsequently provide better cognitive and emotional benefits for the children in these programs. However, in both Zillman and Perlman's (2008) and Zillman and Fiene's (2012) reviews of the centers involved in using the QRIS, most of them identified their center as an NAEYC accredited center. The researchers concluded that this accreditation was likely one of the reasons these centers had higher quality standards on the QRIS, and it was not possible to determine if the increased quality was due to their accreditation efforts or their involvement with QRIS.

Barriers to QRIS Implementation

Importantly, Zillman and Perlman's (2008) work identified barriers in the implementation of the QRIS. The first barrier identified related to inadequate funding.

The five states that managed to implement the QRIS rating system spent a significant amount of money, and a majority of that money came from the state. Because funding is an issue, having the right political support (a macro-level influence) is critical in helping raise funds and gain support for the QRIS. Zillman and Perlman (2008) also recommended the promotion of QRIS with parents. These researchers suggested that reaching a majority of parents that meet that criteria for parent support are key to helping build strong support for quality rating systems like the QRIS. Zillman and Perlman (2008) also suggested that accreditation not be a part of the QRIS. They cited the expense to centers to pursue and achieve accreditation as an obstacle for many centers. The recommendation was that the QRIS be used by state licensing to help build quality for centers that have yet to receive accreditation (Zillman & Perlman, 2008).

Pianta et al. (2016) identified a key piece of quality in child care is teacher-child interactions. The study indicated that there is increasing pressure for lawmakers to promote and provide resources to child care centers. The study stated that standards on the quality offered by child care associations like NAEYC, the American Academy of Pediatrics and the National Institute for Early Education Research, have created dozens of standards on early childhood education (Pianta et al., 2016). These standards include student-teacher ratio, teacher education/training, classroom environment, and student-teacher communication. Pianta et al. (2016) identified that the QRIS and the Early Childhood environment Rating Scale (ECERS; Harms, et al., 1998) assess current quality standards. They recognized that each tool has limitations in identifying quality

individually, but the two assessments together provide a better picture of a center's quality. Also, the study suggested that teachers learn best when they have an opportunity to see effective teaching. Pianta et al. (2016) indicated that, while quality should be the focus of research on child care, there is still more research that needs to be done to truly know which standards have the most significant impact on child care quality. The study suggested further research shift the focus to student-teacher interactions and the quality of the teacher in the classroom. The teacher's ability to communicate and teach the children in the classroom is the key to the future of child development policy and practices (Pianta et al., 2016).

Child Care Provider Education

The U.S. federal government does not currently dictate what is required for early childhood teachers' educational requirements (Haynie, 2019). The standards for what is necessary for minimum educational requirements for child care providers are determined on a state-by-state basis, and there is a significant difference in the minimum educational level required by various states (Haynie, 2019). In their 2019 report titled, *Increasing Qualifications, Centering Equity: Experiences and Advice from Early Childhood Educators of Color,* NAEYC, and the Education Trust cited that standards for each state vary dramatically (Fleeter, 2018). Only 23 states require a minimum of a bachelor's degree to be a lead teacher across pre-K classrooms. For example, in the northeast part of the United States, some states, including New Jersey and New York, require teachers to have at least a CDA (New Jersey Department of Education, 2018; New York Department

of Education, 2018). However, in the south-central United States, including Texas and Oklahoma, child care staff are only required to be 18 years of age or older and have a high school diploma or GED (Oklahoma Department of Human Services, 2007; Texas DFPS, 2016). A few states, such as Louisiana and Missouri only require child care workers to be 18 years of age (Louisiana Department of Education, 2019; Missouri Department of Health and Senior Services , 2019), and Iowa only requires a worker to be 16 years of age to work with children (Iowa Department Health, 2008). Across the United States, child care teachers' education varies dramatically. However, while some states may not require a strong educational background for the teachers, all states require a certain number of professional development hours for all staff members to meet each calendar year.

Professional Development (Training) Requirements

It is crucial to understand what each state requires for professional development, what types of professional development teachers can use for their professional development hours, and what content areas the state requires the professional development to cover. Just like the educational requirements, there are no federally mandated standards for professional development (or trainings) for child care providers (Norton et al., 2018). These standards are also mandated at the state level, with wide variation existing from state to state (Child Care Aware, 2019). For example, New York State Office of Children and Family Services (2020) requires all directors, staff, and volunteers that will have any contact with children regularly to receive at least 30 hours

of training every 2 years. However, every new employee hire is required to do 15 hours within the first year of employment (New York State Office of Children and Family Services, 2020). Similar to New York, New Jersey requires 10 hours per year of professional development, and these two states have some of the highest educational requirements for their teachers.

In contrast, Texas, and Oklahoma, who have lower educational requirements, require more professional development hours (Oklahoma Department of Human Services, 2007; Texas DFPS, 2016). Texas requires all new hires to receive a mandatory 8-hour orientation that includes child development content. In addition, child care providers are required to obtain 24 hours of professional development annually. In Oklahoma, like Texas, an orientation is required to train new child care providers in child development content. However, Oklahoma also requires that all newly hired staff work with a master teacher (an example of Bandura's concept of modeling), and it is necessary to enroll in 20 hours of training within three months of being hired.

Additionally, all teachers in Oklahoma, no matter their level, are required to receive 12 hours per year of professional development if they will be counted in staff ratios. Louisiana has similar requirements for staff development. For example, upon hire, all staff have a required orientation and four days of supervised work with the children before they can begin to work with children independently. After that, all child care staff that will work with children in Louisiana are required to have 12 hours of professional development each year (Louisiana Department of Education, 2019). All the staff must

have been trained in CPR: §1723.A regarding CPR and First Aid Certifications state that 50% of staff in the child care center and who have access to children, or at least four staff on the premises and have access to children, whichever is less, should have a current CPR certification (Louisiana Department of Education, 2019). As a result, NAEYC, understanding that each state has different standards and, in conjunction with The Education Trust, launched a Power to the Profession Initiative. This initiative is designed to bring to the forefront how to unify the future work of the child care profession, and this includes increased educational requirements, unified state standards, and better organization in the field of early childhood (Calderon, 2020). Initiatives such as this are promising; it is essential to note that these requirements still vary. They all have the common lack of prescribed content (with some exceptions to be discussed in the next section), which is allowing providers to choose their training topics and methods of delivery. What is less well-known is what types of trainings providers perceive themselves to need and in what format they prefer to receive these training hours (Calderon, 2020). Confirming the importance of initiatives such as this, Workman and Ullrich (2017) suggested that the child care workforce is key to the quality of a child care center. They recommended that all child care providers need to have a strong knowledge base to be successful and emphasized that formal teacher education and strong professional development is required to further the profession.

State Requirements for Professional Development Content

Most states have several requirements for professional development content. For example, most states require teachers and staff to be CPR and First Aid certified (Calderon, 2020). Some of the other content areas most of these states require to be covered yearly are: Principles of Childhood Development; Guidance and Discipline; Cultural Diversity; Curriculum Development; Teacher-Student Interactions; Communication; Nutrition and Health Needs of Children; Safety and Security Procedures; Records Maintenance and Management; Child Abuse and Maltreatment; and State Standards for Education/Continuing education. NAEYC's DAP, the foremost authority on child care standards and quality, explains why these principles of child development are crucial to quality child care programming and recommend that all child care workers regularly be trained in these key principles, especially those that will help them improve process aspects of quality like curriculum, child development, child guidance, and discipline, to name a few (Bredekamp, & Copple, 1997).

NAEYC (2019) also recognized that child care providers experience barriers to receiving the training they require. These barriers could include limited funding and limited access to quality professional development. NAEYC chapters try to help fill in the gaps in professional development. They work to promote the principles of child development (Bredekamp & Copple, 2009; Copple, et al., 2007), the lack of local chapters everywhere and the amount of child care providers who do not belong to this

professional organization means that there are many providers without access to trainings on each of these topic areas.

To demonstrate the importance of teacher professional development on children's outcomes, Piasta et al. (2012) examined the impact of training on language development on teachers' ability to raise a preschool child's vocabulary. This study's sample consisted of 49 preschool teachers from the ages of 15 to 25 from various preschools, and 330 children with a mean age of 52 months. The professional development used was the Learning Language and Loving It program. This program by The Hanen Program for Early Childhood Educators assisted child care providers with different approaches involving language development. The results of this study revealed that as the teachers received their training, there was a significant increase in communication strategies used in the classroom and increased vocabulary in the children in the sample. Also, it showed an increase in the teachers' complexity to have discussions with the children in the classroom. The findings of this study suggest that any professional development regarding language learning is to explore the extent to which the teachers understand and use the strategies in the classroom. However, one of the limitations of the study suggested that they did not have an accurate tool to measure the sensitivity the teachers had in maintaining the strategies used over time. This led to the suggestion that future research should look at how professional development impacts the teachers' strategy in general, along with their classroom activities and techniques. Last, Piasta et al. (2012) suggested that future researchers examine how teachers use and view professional development.

Identifying and understanding teachers' perceptions and willingness to use professional development in their classroom is key to the success of professional development programs (Piasta et al., 2012).

Benefits of Professional Development

Participation in professional development can provide additional benefits, other than the noticeable improvements to classroom practices and environments previously discussed. For example, Murray et al. (2014) found that participation in professional development is the key to helping build strong parent-teacher communication. In their study regarding parent involvement in their child's school and parent-teacher interaction, they determined that parents were more involved with the school and the teacher if the parent and teacher had quality communication. Murray et al. (2014) noted that if the teacher had a greater knowledge base about the family, their culture, and the child's development, the teacher provided the family with the information they needed to be successful. The recommendations for future research were to review quality professional development programs that promote parent-teacher interaction (Murray et al., 2014).

Ingvarsson and Hanley (2006) examined how a computer-based training program would encourage teachers to communicate with their parents in the morning. The hope was to encourage a more positive teacher-parent interaction. The study included one male and three female teachers (between the ages of 20 to 23), and a total of 17 parents. The researcher used observation to score the teachers' interactions with the parents between 7:45 AM and 8:45 AM. Each time the teacher greeted a parent, the observer would mark

yes or *no*, creating a score value for the interaction. In addition, the parents received a survey to address how valuable the parent-teacher interaction was to the parent. The researchers asked the parents to identify how important being addressed by their name was to them on a scale of 1 (*not important*) through 5 (*very important*). The study's outcome resulted in understanding the benefits of computer-based training programs make on the performance of the teachers. Also, the analysis suggested that it improved the overall efficiency of the child care workers. The fact that teachers could identify each child and their parent by name, parents reported increased communication with the teachers. This increased the positive parent-teacher interactions in the classroom. The study identified one teacher was an outlier. This teacher did not improve communication with the parents. The researcher suggested this may be due to motivational deficiencies, and the teacher lacked the motivation to implement the training in the classroom. Further research should identify what might influence teachers' motivation to implement training in the classroom (Ingvarsson & Hanley, 2006)

The right professional development can provide child care workers the chance to provide a more advanced curriculum to their students, as well. Roehrig et al. (2011) identified the impact of professional development on Head Start teachers and discovered there is limited math and science instruction in early childhood education due to a lack of training for the teachers. Using a rural location to collect their data, about 65% of the adults lived on a reservation and were unemployed. Most of the students in the school received free lunch. This Head Start program had nine classrooms, and most of the

classes had children of Native American descent. Each classroom had a lead teacher and assistant teacher. Roehrig et al. (2011) used two programs to improve the teachers' comfort with the science curriculum. The first was the *Ah Neen Dush* (Gregory, 2013) program to increases the awareness of science and to provide the tools to offer quality science curriculum in the classroom. When *Ah Neen Dush* was developed, it drew on standards that encompassed the Native American language and culture in the modules for learning science. Next, the *Young Scientist: Discovering Nature with Young Children* (Chalufour, & Worth, 2003) curriculum was presented to the teachers. This curriculum was used to help the teachers engage the students in scientific inquiry. The two programs addressed the concerns about early childhood teachers' attitudes towards science. The study stressed the need for teachers to develop a positive attitude toward math and science curriculum (Roehrig et al., 2011). The researchers theorized that this would increase their students' interest in math and science concepts. The program was a 3-year commitment using both programs. After the study, the teachers were evaluated and asked questions to determine their attitudes towards performing science projects in the classroom.

In addition, the teachers were examined through observation protocol under the Classroom Assessment Scoring System (CLASS). The CLASS determined the teachers' sensitivity to culturally appropriate responses increased, and an increase in the teachers meeting the students' needs regarding specific cultural practices. Roehrig et al. (2011) suggested that 2 years of professional development in science provided the teachers with

the knowledge they required to implement more science projects in their classrooms without hesitation. Also, the class data collected showed an increase in emotional support and instructional support for the teachers to the students. The professional development provided an increase in access and stimulating material for teachers to produce better strategies for classroom management. The *Ah Neen Dush* offered the teachers an opportunity for an increased number of science activities and engaging their students in science. Roehrig et al. (2011) identified that one-time workshops with limited follow up do not offer the same effective classroom changes as the long-term professional development programs. However, the study did determine that the teachers need to be willing to participate in the trainings to gain knowledge. Future research needs to identify what teachers need to increase the effectiveness of all professional development. It shows teacher feedback is essential to understanding how successful professional development can be in the classroom (Roehrig et al., 2011). Casbergue et al. (2014) studied the Early Reading First (ERF) project in seven preschool classrooms in an urban public school. All of the teachers that participated in their study had a bachelor's degree or higher. The purpose of the ERF project was to increase language development and early childhood literacy. The ERF program involves modeling and coaching to improve reading aloud and sharing interactive writing skills, and assessed teachers using the CLASS assessment. This study examined the CLASS reliability training program to see if the teachers that received training on the CLASS assessment could implement the training of ERF more

efficiently than teachers who do not receive the training. They did not actually receive the same training.

Casbergue et al. (2014) participants were split into two groups in the first week of the program. The groups were made up of a combination of teachers, assistant teachers, and principals. One group received CLASS reliable training from the director of the center. With this training the selected teachers and directors would become certified CLASS observers and trainers for their school. Casbergue et al. (2014) used classroom videotapes to determine the reliability of the CLASS training. During the progress, Professional Development Institute teachers would use the CLASS to observe training protocols in the videos. Casbergue et al. (2014) noticed that as the teachers' knowledge of how the CLASS assessment worked increased, the teachers' classroom management skills improved. The training made the teacher who received the CLASS reliability training more sensitive to the environment in the classroom. The study identified that all the teachers improved in their interactions with their students after receiving the CLASS reliability training. While the researchers cited some limitations in their research, they concluded that using CLASS reliability training is a good starting point for strong training in the classroom but does not replace the long-term benefits of ongoing professional development and individual mentoring. Future research should look into how to make the results sustainable over some time and review and understand the teachers' perceptions of the benefit of this type of knowledge (Casbergue et al., 2014).

Barriers for Child Care Providers

While it is clear that training may benefit a teacher's ability to provide a higher quality classroom environment, teachers are not always able to implement what they learn in trainings into their classrooms. Cornille et al. (2006) identified that child care providers have several barriers when working in child care. Included barriers are low pay, limited benefits, high teacher-student ratio, and limited access to training or education. Cornille et al. (2006) suggested one area of future research could examine teachers' limited access to trainings.

Nicholson and Reifel (2011) conducted a qualitative study on teacher trainings used to help prepare teachers for the classroom. Most of the child care workers in the study identified their training as "sink or swim" (Nicholson and Reifel, 2011, p. 5) training. Nicholson and Reifel (2011) found that most teachers found some of their trainings were not relevant to the classroom they were assigned to teach. Also, the child care providers stated they did not receive the tools or supplies needed to implement the training in their classroom. Nicholson and Reifel (2011) reported that child care providers felt the administration did not support their needs in the classroom. This study was a small qualitative study and suggested that future research study a larger sample of child care providers to determine other barriers child care providers have after receiving classroom trainings (Nicholson & Reifel, 2011)

In one such study, Gable and Halliburton (2003) examined barriers involved in child care providers' professional development. They studied 647 childcare providers,

including 92 center directors, 203 childcare providers, and 325 family child care providers to understand better the high turnover rate in the child care workforce (Gable & Halliburton, 2003). The researchers focused on one state's workforce, their beliefs on their training/education, and the barriers teachers faced, as well as how teachers overcame those barriers. Using telephone interviews with a 50-question survey, Gable and Halliburton asked about professional development barriers. These barriers were defined as things that keep teachers from attending any professional development in the first place. The six items used for barriers included the cost of the class, the quality of the training if there was compensation for attending the training, training location, scheduling of the training, and limited notice of the training. They used a four-point Likert scale, with 1 being *not important* to 4 being *very important*. Gable and Halliburton (2003) suggested that personal bias can play a role in child care providers' barriers. Some of the barriers the teachers listed included location, no compensation for attending the training, limited notice on the training, and too many requirements to implement the training. Gable and Halliburton (2003) recommended that future research examine the personal beliefs that influence these barriers and determine any further barriers that could be mitigated or removed that could improve child care providers' desire to implement the training.

Summary

The literature supports the need for professional development and its impact on high-quality child care (Workman & Ullrich, 2017). In the United States, each state

provides their criteria for the minimum standards needed for child care worker education and professional development (Child Care Aware, 2019) These differing standards put varying levels of importance on child care provider training (Child Care Aware, 2019; NAEYC, 2011; Workman & Ullrich, 2017). However, there are barriers to child workers' ability to implement the trainings in the classroom (Gable & Halliburton, 2003). However, the literature does not consider the teachers' perceptions of these topics and their belief in their knowledge base. In addition, the literature is missing information on where the teachers prefer to receive their classroom trainings. The current quantitative research study fills a gap in the literature. It addresses what kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classroom.

CHAPTER III

METHOD

Study Aims

This quantitative research study examined what kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. In this chapter, the methodology used to recruit participants, the tool used to collect the data, and the operationalization of the independent and dependent variables will be described.

Participants

An a priori power analysis was computed using GPower 3.1.3 software (Faul et al., 2009) to determine the sample size required for sufficient statistical power to answer the research questions in this study. Using effect size = .25, power = .80, alpha = .05, df = 3, and groups = 2, the software determined that a MANOVA sample size for this study of 277 participants would provide the statistical power necessary to represent the target population adequately. To ensure this sample size is enough for a correlation, the GPower 3.1.3 software was re-calculated for a correlation. Using effect size = .25, power = .80 and alpha = .05, the power analysis suggested using a sample size of 193. Since this number is lower than the number required for MANOVA, 277 participants were targeted as a recruitment goal.

The participants were recruited from licensed child care programs in the state of Texas, found through the Texas DFPS website. This website contains a database of all licensed and registered child care programs and family home providers in the state of Texas. Using Texas Demographics by Cubit (2020), the researcher identified the 20 largest counties in the state of Texas. Once the 20 largest counties were identified (see Table 1), these counties were entered into the Texas DFPS website, and an excel spreadsheet was exported from the site to provide the names and contact information for child care centers in those 20 counties. Using the exported excel spreadsheet, every third child care center was selected to participate in the research study. Table 1 identifies the 20 counties used in the research and the descriptive statistics for the participants concerning their counties.

Table 1

Sample Composition by County (N=20)

Variable	*n*	*%*
County		
Bell County	3	1.32
Bexar County	7	3.08
Brazoria County	4	1.76
Cameron County	1	0.44
Collin County	11	4.85
Dallas County	15	6.61
Denton County	11	4.85
El Paso County	5	2.20
Fort Bend County	6	2.64
Galveston County	2	0.88
Harris County	46	20.26
Hidalgo County	5	2.20
Jefferson County	2	0.88

Variable	*n*	*%*
Lubbock County	2	0.88
Montgomery County	1	0.44
Nueces County	2	0.88
Other (please specify)*	58	25.55
Tarrant County	28	12.33
Travis County	8	3.52
Webb County	1	0.44
Williamson County	9	3.96
Missing	0	0

Note. Due to rounding errors, percentages may not equal 100%. *Other allowed participants to write in County if not listed and *n* = number of participants in that county.

Once the child care centers were selected, the following methods of communication were used to invite the child care workers to participate in the study: (a) a flyer distributed by email to directors that included the URL for the study questionnaire; (b) messages sent via Facebook messenger to child care center Facebook pages and known child care directors; (c) emails sent to corporately owned centers' curriculum coordinators and Texas Associations for the Education of Young Children (TXAEYC) trainers to request participation; (d) direct contact with directors and staff of previous centers known personally and professionally by the researcher. Snowball sampling was then employed to reach the minimum number of participants, requesting that child care providers completing the survey pass the link on to others who may qualify for the study. The researcher received emails and phone calls from local associations regarding the research study. This communication was used to make connections and explain the study's purpose and answer any questions about the survey.

Upon receiving the survey link from either their child care center or professional association, the participants reviewed the informed consent form, which loaded on the first page after the participants logged into the survey site. Participants could access the survey from any computer or tablet. On completion of the consent form, the participants proceeded to the next page, which included the survey questions. At the end of the survey, participants were taken to a separate survey link for the drawing of the $25.00 gift card. The researcher determined the need for an incentive to encourage the teachers to participate in this research study. Research has shown that incentives can often encourage participants to participate in studies related to their field (Field, 2013).

The survey opened in PsychData in the Spring of 2019 and remained open until the Fall of 2019. At the end of the Fall of 2019, there were a total of 344 participants that had participated in the study. A review of the participant pool identified multiple outliers in the participants. First, there were duplicates that consisted of participants with the same IP address, and this suggested the same person taking the survey multiple times. Next, the researcher identified participants who did not vary their answers. This was represented by the participant answering the same answer for the entire survey. For example, they were selecting 1 across the whole survey to all the Likert scale questions. Both participants with duplicated IP addresses and repeated answers were removed from the participant pool. The researcher identified only two male participants in the study. Since there was not a significant number of male participants for the study, the male

participants were removed from the study. The final participant pool resulted in 227 total participants for this research study.

Ethical Considerations

An exempt application for research with human participants was submitted to the Institutional Review Board (IRB) of Texas Woman's University. This application type was appropriate because the participants required for this study were not classified as a sensitive population, the study did not involve any sensitive topics, the survey was completely anonymous, and there was minimal risk to the participants of the study. During the research study, the researcher requested one modification through the IRB process. The amendment added additional wording to the flyer and created a script for talking to directors and trainers. Last, an extension of the research study was done to allow for more time for recruitment.

Instrument

The Survey of Child Care Providers' Perceptions of Educational Trainings and Barriers, adapted from a previously unpublished study by Dr. Brigitte Vittrup, Dr, Katherine Rose, and Dr. Melissa Harper from Texas Woman's University, was used to collect data for this study. The researcher received permission from the original authors to adapt to this tool. The survey contains four sections. The four sections include demographics, base knowledge, desired knowledge with a choice of training, and barriers to implementation.

Child Care Providers Perception of Training Needs and Barriers to Implementation

Section A of the survey was designed to ask demographic information (see items 1 through 17 in Appendix A). The demographic data included gender, age, economic income, marital status, and title at work. This section of the survey also identified if the child care providers had benefits and if they belonged to any professional organizations. Also, this section requested the participants identify education level, years of experience, if they were full-time and part-time employees, and where they receive their trainings.

Section B of the survey asked the child care providers to identify their level of knowledge about specific topics related to child development. The first item in this section requested child care providers to indicate how knowledgeable they felt that they were about child development topics, overall (see item 17 in Appendix A). Participants indicated their perceived level of knowledge about child development, in general, using a Likert-type scale ranging from 1 to 7, with 1 indicating a low level of knowledge and 7 indicating a high level of knowledge. Next, the participants were given a list of 20 child development topics, including physical milestones, child memory, attention span, moral development, prosocial behavior (helping, sharing, cooperation), aggression, children's understanding of feeling, attachment, separation anxiety, emotional regulation, temper tantrums, self-esteem, child discipline, child abuse, anti-bias curriculum and communication with parents (see items 18 through 38 in Appendix A). Participants rated their perceived level of knowledge about each of these specific topics using a Likert-type scale ranging from 0 to 3, with 0 indicating *no knowledge* of that topic and three

indicating the participant felt *very knowledgeable* about that topic. The last question in this section asked the participants to provided which topic they wish they had more knowledge about (see item 39 in Appendix A). This question was a freeform question that allowed the participants to write in their response.

Section C of the survey requested child care providers to identify what trainings/child care topics they feel would be most useful to them. Topics rated included: classroom management, curriculum development, behavior modification, art projects, Developmental appropriate practices, STEM Projects, science projects, social development, building resilience, classroom environment organization, use of play in the classroom, shaken baby syndrome, CPR/Frist Aid, cognitive development, emotional development, transitions, guidance, age-specific issues, infant development, toddler development, preschool development, concept development, dramatic play, math in the classroom, nutrition, physical environment, children's literature, and child development theory (see items 40-67 in Appendix A). Participants rated how useful each of these topics would be to them on a scale of 1 to 5, with 1 being *not useful* and 5 being *very useful*. Immediately following the rated items, participants were asked to identify where they prefer to get their child care knowledge (see items 68 and 69 in Appendix A). Choices included college courses, on-site and off-site trainings, professional conferences, online courses, books, professional journals, educational videos, internet sites, and magazines.

Section D requested that the participant identify the barriers they face when trying to implement trainings in the classroom (see items 10 through 80 in Appendix A). There were 10 items included here that asked participants to rate on a scale of 1-5 (with 1 indicating *strong disagreement* and 5 indicating *strong agreement*) how much they agreed or disagreed with statements related to common barriers faced by child care providers in the literature. This section included items such as, “It is often expensive to implement what I have learned,” and “I don’t feel confident implementing what I learn.” Lastly, participants were asked how interested they were in social networking with other child care providers in their field.

PsychData was used for the survey; the study needed to provide a secure way to allow the participants to access the incentive offered for this study. Upon completion of the survey, the survey instructed the child care provider to click on the link to be sent to a separate survey if they wished to provide the information needed to enter the drawing for the $25 gift card.

Independent Variables

The independent variables (IV) for this study were education level and experience level of the participant.

Education Level

Participants indicated their level of education in Section A of the questionnaire (see item 8 in Appendix A). The categories included: High school diploma/GED, CDA, Some College, Associate/Technical degree, Bachelor's degree, some postgraduate work,

Master's degree, and Doctorate. Due to small numbers in the categories related to post-baccalaureate work, participants who indicated some postgraduate work, a Master's degree, or a Doctorate as their highest level of education were collapsed into one category titled "Graduate." Therefore, for the analyses, these categories resulted in five levels for this nominal variable: High School, Some College, Associates, Bachelors, and Graduate.

Experience Level

Participants indicated their years of experience working with children in Section A (see item 11 in Appendix A). Participants provided their years of experience working in child care in years and months, providing ratio level data for the experience. For analyses requiring categorical independent variables, the researcher recoded the data to create categorical variables by 5-year increments. The data was categorized in the following manner: 0-5 years, 6-10 years, 11-15 years, 16-20 years, and 21+ years.

Dependent Variables

The dependent variables in this study were: perceived level of knowledge related to child development topics, the usefulness of the knowledge received related to child development topics, preference in how to receive their knowledge, and the perceived institutional and personal barriers to implementation of knowledge received in trainings. The researcher used the previously discussed independent variables to examine an association with the dependent variables.

Perceived Knowledge

In section B, participants were given a list of 20 child development topics, including physical milestones, child memory, attention span, moral development, prosocial behavior (helping, sharing, cooperation), aggression, children's understanding of feeling, attachment, separation anxiety, emotional regulation, temper tantrums, self-esteem, child discipline, child abuse, anti-bias curriculum, and communication with parents (see items 18 through 38 in Appendix A). Participants rated their perceived level of knowledge about each of these specific topics using a Likert-type scale ranging from 0 to 3, with 0 indicating *no knowledge* of that topic and 3 indicating the participant felt *very knowledgeable* about that topic.

Perceived Usefulness

In section C, participants rated how useful each of these topics would be to them on a scale of 1 to 5, with 1 being *not useful* and 5 being *very useful* (see items 40 to 67 in Appendix A). Lower scores for this interval level variable indicated that the participants did not find that knowledge useful, and higher scores indicate that the knowledge was very useful. The following topics were assessed for usefulness: classroom management, curriculum development, behavior modifications, art projects, developmentally appropriate practices, STEM projects, science projects, social development building resilience, classroom environment organization, use of play in the classroom, shaken baby syndrome, CPR/First Aid, cognitive development, emotional development transitions, guidance, age-specific issues, infant development, toddler development

preschool development, concept development, dramatic play math in the classroom, nutrition, physical environment, children's literature, and child development theory.

Participants' choice in training

Participants were asked to identify where they prefer to get their child care knowledge by checking the types that they preferred, providing these data at the nominal level (see items 68 and 69 in Appendix A). Choices included college courses, on-site and off-site trainings, professional conferences, online courses, books, professional journals, educational videos, internet sites, and magazines.

Barriers to implementation

This study used 10 items that asked participants to rate on a scale of 1-5 (with 1 indicating *strong disagreement* and 5 indicating *strong agreement*) how much they agreed or disagreed with statements related to common barriers faced by child care providers in the literature (see items 70 through 80 in Appendix A; Gable & Halliburton, 2003). This section included questions like, "It is often expensive to implement what I have learned," and "The materials that I need are not available to me" and "I don't feel confident implementing what I learn." And " I would rather do things the way I think are best."

Summary

In this chapter, the methodology used for this quantitative research study describes the sample and sample recruitment, the measure used, and the operationalization of the independent and dependent variables. This study examined what

kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms.

CHAPTER IV

RESULTS

This study examined what kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. First descriptive statistics were computed to provide frequencies, variable descriptive, and to check the normality of the data. The study looked to understand the effect between two independent variables and multiple dependent variables. A two-way MANOVAs and chi-square tests of independence were chosen as the proper statistical analysis. Statistical significance was evaluated at the generally accepted level, $\alpha = .05$.

Preliminary Analyses

A total of 344 participants were recruited for this study. After cleaning the data, 227 remained in the sample. All the participants were female, ranging in age from 18 to 69 years old (M = 38.53 years; SD = 11.67). Most of the participants were White (n = 107, 47.1%), Black or African American (n = 45, 19.8%), or Spanish/Hispanic (n = 60, 26.4%). A majority of the sample consisted of participants who were married (n = 130, 57.3%). A majority of the sample had participated in on-site training (n = 186, 81.9%), and worked full-time (n = 198, 87.2%). Income level was also widely dispersed between the different categories. The most frequently observed category of Association was the

National Association for the Education of Young Children (*n* = 66, 29.07%). Table 2 presents the frequencies of the nominal-level variables.

Table 2

Participant Demographics (N=227)

Variable	*n*	*%*
Ethnicity		
White	107	47.1
Black or African American	45	19.8
Spanish/Hispanic/Latino	60	26.4
Asian	5	2.2
Two or more races	9	4.0
Other	1	0.4
Education		
High school	30	13.2
Some college	60	26.4
Associates	50	22.0
Bachelors	68	30.0
Graduate	19	8.4
Marital status		
Single (never married)	58	25.6
Cohabitating	3	1.3
Committed to life partner	8	3.5
Married	130	57.3
Separated	6	2.6
Divorced	17	7.5
Widowed	5	2.2
Preference for Training		
Types of training		
College courses or formal adult education	23	10.1
On-site workshops/training	62	27.3
Off-site workshops/training	40	17.6
Professional conferences	36	15.9
Online courses	43	18.9
Books, professional journals, educational videos, internet sites, magazines, other	12	5.3

No response	11	4.8
Experience		
0-5 years	81	35.7
6-10 years	49	21.6
11-15 years	30	13.2
16-20 years	25	11.0
21+ years	39	17.2
No response	3	1.3
Income		
Below $9,999	11	1.3
$10,000-$29,999	69	14.5
$30,000-$49,999	50	11.5
$50,000-$69,999	33	9.7
$70,000-$89,999	25	4.8
$Over 90,000	39	4.0
Associations		
Local Association for the Education of Young Children	16	7.05
Child Care Aware of America	7	3.08
Texas Association for the Education of Young Children	60	26.43
Association for Childhood Education International	1	0.44
National Association for the Education of Young Children	66	29.07
National Child Care Association	13	5.73
National Head Start Association	24	10.57
None	87	38.33
Other	29	12.78

Descriptive Statistics of Independent Variables

First, descriptive statistics were computed to determine the characteristics of the sample, independent variables, and dependent variables. The education of participants was widely dispersed between the high school, some college, associates, bachelors, and graduate (see Table 3). Years of experience were also widely dispersed between 0-5 years up to 21+ years, with more participants having fewer years of experience. Types of training were also distributed among various methods, with most participants receiving on-site workshops training (n = 62, 27.3%).

Descriptive Statistics for Dependent Variables

Descriptive statistics for the base knowledge items are presented in Table 3. Participants rated their perceived level of knowledge about each of these specific topics on the questionnaire using a Likert-type scale ranging from 0 to 3, which 0 indicating *no knowledge* of that topic and 3 indicating the participant felt *very knowledgeable* about that topic. In analyses, these numbers were converted from a scale of 0-3 to a scale of 1-4, with 1 indicating no knowledge and 4 indicating high levels of knowledge about that topic.

Table 3

Descriptive Statistics for Base Knowledge Items

Variable	*n*	*Min*	*Max*	*M*	*SD*
Physical milestones (crawling, walking, etc.)	227	2	4	3.63	.551
Perspective taking (seeing something from someone else's viewpoint, etc.)	227	1	4	3.52	.590
Language development (babbling, talking, etc.)	227	1	4	3.54	.589
Children's memory	227	1	4	3.19	.690
Attention span	227	1	4	3.49	.627
Play styles (solitary, parallel, cooperative)	227	2	4	3.54	.582
Friendship development	227	1	4	3.48	.605
Peer relations (ability to get along with others of a similar age)	227	1	4	3.50	.627
Moral development	227	1	4	3.25	.692
Prosocial behavior (helping, sharing, cooperating)	227	1	4	3.52	.583
Aggression	227	1	4	3.26	.671
Children's understanding of feelings	227	2	4	3.49	.605
Attachment	227	1	4	3.52	.605
Separation anxiety/Stranger anxiety	227	2	4	3.56	.572
Emotion regulation	227	1	4	3.35	.616
Temper tantrums	227	1	4	3.42	.669

Self-esteem	227	1	4	3.41	.655
Child discipline	227	1	4	3.51	.634
Child abuse & neglect	227	1	4	3.65	.538
Anti-bias curriculum & materials (understanding those from different backgrounds)	227	1	4	3.33	.735
Communication with parents	227	2	4	3.67	.523

Note: Table 4 represents perceived knowledge $n = 227$, SD = 0.42, $\alpha = .94$.

Descriptive statistics for the perceptions of usefulness items are presented in Table 4. These topics were rated on a scale of 1 to 5, with 1 being *not useful* and 5 being *very useful* (see items 40 to 67 in Appendix A). Lower scores for this interval level variable indicated that the participants did not find that knowledge useful, and higher scores indicate that the knowledge was very useful.

Table 4

Descriptive Statistics for Perceived Usefulness Items

Variable	*n*	*Min*	*Max*	*M*	*SD*
Classroom Management	216	1	5	4.55	.914
Curriculum Development	216	1	5	4.39	.997
Behavior Modification	216	1	5	4.47	.930
Art Projects	216	1	5	3.67	1.297
Developmentally Appropriate Practices	216	1	5	4.55	.834
STEM Projects	216	1	5	4.03	1.145
Science Projects	216	1	5	3.87	1.211
Social Development	216	1	5	4.59	.779
Building Resilience	216	1	5	4.25	1.104
Classroom Environment Organization	216	1	5	4.47	.899
Use of Play in the Classroom	216	1	5	4.44	.943
Shaken baby syndrome	216	1	5	3.95	1.410
CPR/First Aid	216	1	5	4.48	1.016
Cognitive development	216	1	5	4.47	.959
Emotional development	216	1	5	4.67	.727
Transitions	216	1	5	4.46	.883
Guidance	216	1	5	4.45	.882

Age Specific Issues (ex: biting, temper tantrums)	216	1	5	4.40	1.011
Infant Development	216	1	5	3.89	1.499
Toddler Development	216	1	5	4.08	1.375
Preschool Development	216	1	5	4.47	.899
Concept Development	216	1	5	4.33	1.016
Dramatic Play	216	1	5	4.14	1.099
Math in the Classroom	216	1	5	4.12	1.091
Nutrition	216	1	5	3.98	1.208
Physical environment	216	1	5	4.27	1.004
Children's Literature	216	1	5	4.33	.974
Child Development Theory	216	1	5	4.32	.972

Descriptive statistics for the perceptions of barriers items are presented in Table 5. The were 10 items included here that asked participants to rate on a scale of 1-5 (with 1 indicating *strong disagreement* and 5 indicating *strong agreement*) how much they agreed or disagreed with statements related to common barriers faced by child care providers in the literature (see items 70 through 80 in Appendix A). These items were grouped into one continuous dependent variable labeled Barriers.

Table 5

Descriptive Statistics for Perceptions of Barriers Items

Variable	*n*	*Min*	*Max*	*M*	*SD*
It is often expensive to implement what I learned	207	1	5	3.13	1.181
The training may not apply to the age group with whom I work	205	1	5	3.12	1.140
The curriculum used by the center does not allow me to make changes	206	1	5	2.42	1.157
The materials that I need are not available to me	206	1	5	3.00	1.323
Trainings are hard to understand	205	1	5	1.89	.851
There is not enough time for me to implement what I learn	206	1	5	2.94	1.337
The director is not supportive of me implementing these changes	206	1	5	1.99	1.077

I don't feel confident implementing what I learn	203	1	5	2.20	1.139
I don't usually agree with what I learn in trainings	207	1	5	1.93	.970
I don't usually pay attention to the trainings because they aren't enjoyable	207	1	5	1.79	.990
I would rather do things the way I think is best	206	1	5	2.16	1.089

Normality Assumption

Prior to analysis, the parametric assumption of normality was checked. A Kolmogorov-Smirnov test compares the data to a theoretical normal distribution (Field, 2013). The significance of Kolmogorov-Smirnov tests indicates that the data deviate from a truly normal, bell-shaped curve. A series of Kolmogorov-Smirnov tests were utilized for all the dependent variables in the study. The following variables had distributions which significantly differed from normality based on an alpha of 0.05: Perceived Knowledge ($D = 0.10$, $p = .016$) and Perceived Usefulness ($D = 0.16$, $p < .001$). The following variables had distributions which did not significantly differ from normality: Barriers to Implementation ($D = 0.05$, $p = .699$). However, Field (2013) stated that distributions with 50 or more participants tend to approximate towards normality.

Primary Analyses

To ensure normality and to ensure there were enough participants in each category, the variables were evaluated for continuous distributions. SPSS was used to perform a Multivariate Analysis of Variance (MANOVA). MANOVA is a statistical procedure that measures mean differences among three or more groups that are formed based on different levels of a categorical variable with multiple dependent variables (Vogt & Johnson, 2011) SPSS produced the F-ratio for the MANOVA which showed

whether there was a significant difference among the group means (Field, 2013). In addition, SSPS output provides a Correlation *t*-test, which was used to analyze the data in each research question.

Research Question 1

Are there group differences in child care providers' perceptions of their level of knowledge on child development by education or experience?

Hypothesis. There will be group differences in child care providers' perceptions of their knowledge of child development by education and experience, with those with more education or experience indicating higher perceptions of knowledge.

To address research question one, a MANOVA was conducted to examine differences in the level of knowledge on child development through education and work experience. A MANOVA is an appropriate analysis when assessing differences in multiple continuous-level variables by groups (Tabachnick & Fidell, 2013). The continuous dependent variable corresponded to perceived knowledge of child development (see items 18 through 38 in Appendix A). The first independent grouping variable corresponded to education level: High School, Some College, Associates, Bachelors, and Graduate. The second independent grouping variable corresponded to experience: 0-5 years, 6-10 years, 11-15 years, 16-20 years, and 21+ years.

Overall MANOVA between-subjects effects

The results of the overall MANOVA by education were not statistically significant, $F(12, 442) = 1.68$, $p = .067$, partial $\eta^2 = .039$, indicating there were not

significant differences in knowledge on child development by education level. The results of the overall MANOVA by work experience were not statistically significant, $F(21, 480) = 0.63$, $p = .899$, partial $\eta^2 = .035$, indicating there were not significant differences in knowledge on child development by work experience. The results of the overall MANOVA by education level*work experience were not statistically significant, $F(69, 499) = 0.65$, $p = .92$, partial $\eta^2 = .112$, indicating there were not significant differences in knowledge on child development by education level*work experience. The results of the overall MANOVA are presented in Table 6. Tables 7 and 8 provided a summary of the knowledge base by education and experience.

Table 6

Multivariate Analysis of Variance Table for Perceived Knowledge, Useful Knowledge, and Barriers by Education and Level of Experience

Term	Wilk's Lambda	*df*	*F*	*p*	Partial η^2
Education	0.888	(12, 442)	1.686	.067	.039
Work experience	0.899	(21, 480)	0.865	.638	.035
Education*Work experience	0.700	(69, 499)	0.920	.658	.112

Table 7

Summary Statistics for Knowledge on Child Development by Education

Combination	High school diploma			Some college			Associate/technical degree/CDA			Bachelor's Degree			Graduate degree		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Physical milestones (crawling, walking, etc.)	30	3.53	.571	60	3.70	.530	50	3.70	.463	68	3.59	.604	19	3.58	.607
Perspective taking (seeing something from someone else's viewpoint, etc.)	30	3.57	.504	60	3.65	.515	50	3.38	.635	68	3.46	.633	19	3.58	.607
Language development (babbling, talking, etc.)	30	3.53	.507	60	3.57	.647	50	3.52	.505	68	3.54	.609	19	3.53	.697
Children's memory	30	3.03	.669	60	3.28	.666	50	3.10	.763	68	3.24	.672	19	3.26	.653
Attention span	30	3.27	.691	60	3.48	.596	50	3.40	.728	68	3.62	.547	19	3.63	.496
Play styles (solitary, parallel, cooperative)	30	3.40	.621	60	3.45	.675	50	3.52	.544	68	3.65	.512	19	3.68	.478
Friendship development	30	3.33	.606	60	3.50	.537	50	3.34	.717	68	3.59	.579	19	3.58	.507
Peer relations (ability to get along with others of a similar age)	30	3.27	.640	60	3.52	.624	50	3.36	.722	68	3.65	.540	19	3.63	.496
Moral development	30	3.10	.662	60	3.38	.640	50	3.12	.746	68	3.25	.720	19	3.37	.597
Prosocial behavior (helping, sharing, cooperating)	30	3.30	.535	60	3.60	.588	50	3.44	.705	68	3.57	.498	19	3.58	.507

Aggression	30	3.13	.629	60	3.35	.659	50	3.10	.707	68	3.34	.683	19	3.32	.582
Children's understanding of feelings	30	3.43	.568	60	3.60	.558	50	3.30	.678	68	3.56	.583	19	3.53	.612
Attachment	30	3.50	.572	60	3.57	.563	50	3.42	.609	68	3.54	.656	19	3.63	.597
Separation anxiety/Stranger anxiety	30	3.40	.675	60	3.67	.475	50	3.52	.580	68	3.59	.604	19	3.53	.513
Emotion regulation	30	3.33	.479	60	3.32	.676	50	3.26	.694	68	3.43	.581	19	3.47	.513
Temper tantrums	30	3.43	.504	60	3.43	.745	50	3.36	.663	68	3.41	.717	19	3.53	.513
Self-esteem	30	3.37	.556	60	3.53	.623	50	3.30	.678	68	3.38	.734	19	3.53	.513
Child discipline	30	3.40	.563	60	3.65	.515	50	3.32	.683	68	3.59	.652	19	3.47	.772
Child abuse & neglect	30	3.60	.498	60	3.73	.482	50	3.66	.519	68	3.62	.624	19	3.58	.507
Anti-bias curriculum & materials (understanding those from different backgrounds)	30	3.30	.702	60	3.37	.688	50	3.34	.717	68	3.34	.784	19	3.21	.855
Communication with parents	30	3.57	.568	60	3.75	.437	50	3.66	.557	68	3.69	.526	19	3.58	.607

Table 8

Summary Statistics for Knowledge on Child Development by Work Experience

Combination	0-5 years			6-10 years			11-15 years			16-20 years			21+ years		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Physical milestones (crawling, walking, etc.)	81	3.62	.603	49	3.59	.574	30	3.70	.466	25	3.64	.569	39	3.67	.478
Perspective taking (seeing something from someone else's viewpoint, etc.)	81	3.48	.615	49	3.57	.645	30	3.43	.626	25	3.48	.510	39	3.62	.493
Language development (babbling, talking, etc.)	81	3.49	.635	49	3.51	.582	30	3.77	.430	25	3.48	.653	39	3.51	.556
Children's memory	81	3.23	.694	49	3.12	.666	30	3.17	.747	25	3.20	.645	39	3.21	.695
Attention span	81	3.51	.573	49	3.24	.693	30	3.60	.563	25	3.52	.714	39	3.64	.584
Play styles (solitary, parallel, cooperative)	81	3.47	.593	49	3.45	.614	30	3.67	.547	25	3.56	.651	39	3.67	.478
Friendship development	81	3.41	.608	49	3.43	.677	30	3.60	.563	25	3.52	.586	39	3.54	.555
Peer relations (ability to get along with others of a similar age)	81	3.40	.665	49	3.45	.679	30	3.63	.556	25	3.60	.577	39	3.56	.552

Moral development	81	3.17	.667	49	3.24	.751	30	3.27	.640	25	3.28	.737	39	3.33	.701
Prosocial behavior (helping, sharing, cooperating)	81	3.46	.613	49	3.49	.617	30	3.60	.498	25	3.64	.490	39	3.49	.601
Aggression	81	3.17	.685	49	3.29	.736	30	3.33	.606	25	3.24	.663	39	3.31	.614
Children's understanding of feelings	81	3.46	.613	49	3.53	.581	30	3.50	.682	25	3.60	.500	39	3.41	.637
Attachment	81	3.47	.572	49	3.57	.577	30	3.50	.777	25	3.52	.586	39	3.56	.598
Separation anxiety/Stranger anxiety	81	3.47	.550	49	3.57	.577	30	3.67	.606	25	3.64	.569	39	3.64	.537
Emotion regulation	81	3.28	.617	49	3.37	.636	30	3.47	.507	25	3.44	.583	39	3.33	.662
Temper tantrums	81	3.35	.674	49	3.41	.643	30	3.53	.571	25	3.48	.770	39	3.46	.682
Self-esteem	81	3.32	.704	49	3.31	.742	30	3.47	.571	25	3.60	.500	39	3.54	.555
Child discipline	81	3.42	.687	49	3.47	.739	30	3.63	.490	25	3.56	.507	39	3.64	.537
Child abuse & neglect	81	3.59	.543	49	3.59	.643	30	3.77	.504	25	3.68	.476	39	3.74	.442
Anti-bias curriculum & materials (understanding those from different backgrounds)	81	3.43	.706	49	3.22	.798	30	3.33	.661	25	3.24	.663	39	3.38	.711

Communication with parents	81	3.59	.565	49	3.69	.508	30	3.67	.547	25	3.76	.436	39	3.74	.498

Research Question 2

Are there group differences in the types of training child care providers' choose for themselves by education or experience?

Hypothesis. There will be group differences in the types of training child care providers prefer by education and experience.

A chi-square test of association was utilized when assessing the relationship between nominal-level variables (Field, 2013). Therefore, a chi-square test was conducted to analyze the association between the type of training preferred and experience level and education. The findings of the chi-square test were not statistically significant, $\chi^2(20) = 14.53$, $p = .803$, suggesting that there was not a significant association between type of training and education. Table 9 presents the chi-square test for the relationship between the type of training and education.

Table 9

Chi-Square Test for Relationship between Type of Training and Education

Variable	Education						
	High school	Some college	Associates	Bachelors	Graduate	$\chi^2(20)$	*p*
Type of training						14.53	.803
College courses or formal adult education	4	7	6	4	2		
On-site workshops/training	9	15	12	20	6		
Off-site workshops/training	6	10	9	13	2		
Professional/ conferences	1	8	7	15	5		

Online courses	6	15	10	11	1
Books, professional journals, educational videos, internets sites, magazines, other	2	2	3	3	2

A chi-square test was conducted to analyze the strength of the relationship between type and training and experience. The findings of the chi-square test were not statistically significant, $\chi^2(20) = 15.63$, $p = .739$, suggesting that there was not a significant association between type of training and experience. Table 10 presents the chi-square test for the relationship between the type of training and experience.

Table 10

Chi-Square Test for Relationship between Type of Training and Experience

Variable	Experience						
	1-5 years	6-10 years	11-15 years	16-20 years	21+ years	$\chi^2(20)$	*p*
Type of training						15.63	.739
College courses or formal adult education	10	5	1	3	3		
On-site workshops/training	22	15	6	5	14		
Off-site workshops/training	15	10	8	2	4		
Professional/conferences	10	6	6	6	7		
Online courses	14	10	6	6	7		

Books, professional journals, educational videos, internets sites, magazines, other	4	2	0	3	3

Research Question 3

Are there group differences in child care providers' perceptions of the usefulness of their training by education or experience?

Hypothesis. There will be group differences in child care providers' perceptions of the usefulness of their training by education and experience, with those with more education or experience indicating higher perceptions of usefulness.

To address Research Question Three, a MANOVA was conducted to examine differences in the perceptions of usefulness by education and work experience. The continuous dependent variable corresponded to perceptions of usefulness (see items 40 to 67 in Appendix A). The first independent grouping variable corresponded to education level: High School, Some College, Associates, Bachelors, and Graduate. The second independent grouping variable corresponded to experience: 0-5 years, 6-10 years, 11-15 years, 16-20 years, and 21+ years.

Overall MANOVA between-subjects effects

The results of the overall MANOVA by education were not statistically significant, $F(12, 442) = 1.68$, $p = .067$, partial $\eta^2 = .039$, indicating there were not significant differences in perceived usefulness on child development by education level.

The results of the overall MANOVA by work experience were not statistically significant, $F(21, 480) = 0.63$, $p = .899$, partial $\eta^2 = .035$, indicating there were not significant differences in perceived usefulness on child development by work experience. The results of the overall MANOVA by education level*work experience were not statistically significant, $F(69, 499) = 0.65$, $p = .92$, partial $\eta^2 = .112$, indicating there were not significant differences in perceived usefulness on child development by education level*work experience. The results of the overall MANOVA are presented in Table 11. Tables 12 and 13 provide a summary of the usefulness statistics by education and experience.

Table 11

Multivariate Analysis of Variance Table for Perceived Knowledge, Useful Knowledge, and Barriers by Education and Level of Experience

Term	Wilk's Lambda	*df*	*F*	*p*	Partial η^2
Education	0.888	(12, 442)	1.686	.067	.039
Work experience	0.899	(21, 480)	0.865	.638	.035
Education*Work experience	0.700	(69, 499)	0.920	.658	.112

Table 12

Summary Statistics for Perceptions of Usefulness by Education

Combination	High school diploma			Some college			Associate/technical degree/CDA			Bachelor's Degree			Graduate degree		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Classroom Management	28	4.64	.826	57	4.67	.740	47	4.60	.876	66	4.38	1.120	18	4.50	.786
Curriculum Development	28	4.50	.962	57	4.58	.885	47	4.47	1.018	66	4.23	1.005	18	4.06	1.211
Behavior Modification	28	4.32	1.056	57	4.56	.945	47	4.36	.942	66	4.59	.784	18	4.22	1.114
Art Projects	28	4.14	1.008	57	4.02	1.232	47	3.68	1.287	66	3.33	1.351	18	3.06	1.259
Developmentally Appropriate Practices	28	4.57	.959	57	4.63	.747	47	4.53	.952	66	4.59	.656	18	4.11	1.079
STEM Projects	28	4.14	1.208	57	4.23	1.069	47	3.98	1.132	66	3.85	1.180	18	4.00	1.188
Science Projects	28	3.71	1.272	57	4.14	1.187	47	3.98	1.132	66	3.64	1.198	18	3.78	1.353
Social Development	28	4.64	.826	57	4.67	.664	47	4.62	.709	66	4.55	.845	18	4.33	.970
Building Resilience	28	4.43	.959	57	4.42	.885	47	4.11	1.238	66	4.17	1.197	18	4.06	1.211
Classroom Environment Organization	28	4.64	.826	57	4.68	.659	47	4.28	1.174	66	4.38	.890	18	4.39	.778
Use of Play in the Classroom	28	4.64	.826	57	4.72	.559	47	4.19	1.209	66	4.33	.982	18	4.28	.958
Shaken baby syndrome	28	4.71	.810	57	4.28	1.221	47	3.98	1.343	66	3.53	1.561	18	3.22	1.555

CPR/First Aid	28	4.75	.799	57	4.79	.619	47	4.36	1.072	66	4.26	1.181	18	4.17	1.249
Cognitive development	28	4.43	1.168	57	4.67	.740	47	4.51	.804	66	4.38	1.078	18	4.17	1.098
Emotional development	28	4.71	.810	57	4.77	.535	47	4.66	.700	66	4.64	.835	18	4.44	.784
Transitions	28	4.32	1.156	57	4.65	.744	47	4.55	.880	66	4.32	.880	18	4.39	.778
Guidance	28	4.50	.962	57	4.65	.668	47	4.45	.951	66	4.33	.934	18	4.17	.924
Age Specific Issues (ex: biting, temper tantrums)	28	4.61	1.066	57	4.56	.887	47	4.45	1.017	66	4.27	1.060	18	3.94	.998
Infant Development	28	4.64	.678	57	4.32	1.311	47	3.87	1.569	66	3.38	1.605	18	3.28	1.602
Toddler Development	28	4.61	.956	57	4.51	1.104	47	4.06	1.466	66	3.70	1.446	18	3.39	1.577
Preschool Development	28	4.64	.826	57	4.56	.887	47	4.53	.804	66	4.29	1.019	18	4.44	.784
Concept Development	28	4.25	1.143	57	4.58	.885	47	4.19	1.096	66	4.29	1.019	18	4.22	.943
Dramatic Play	28	4.36	.951	57	4.44	.887	47	3.94	1.223	66	3.97	1.202	18	4.00	1.029
Math in the Classroom	28	3.75	1.295	57	4.46	.825	47	3.96	1.179	66	4.05	1.156	18	4.28	.752
Nutrition	28	4.00	1.155	57	4.39	.940	47	3.74	1.276	66	3.94	1.263	18	3.44	1.381
Physical environment	28	4.32	1.156	57	4.60	.678	47	4.11	1.068	66	4.12	1.103	18	4.17	.924
Children's Literature	28	4.11	1.286	57	4.65	.582	47	4.28	1.057	66	4.18	1.036	18	4.39	.778
Child Development Theory	28	4.14	1.208	57	4.61	.590	47	4.21	1.160	66	4.32	.931	18	4.00	1.029

Table 13

Summary Statistics for Perceptions of Usefulness by Work Experience

Combination	0-5 years			6-10 years			11-15 years			16-20 years			21+ years		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Classroom Management	75	4.64	.799	48	4.56	.873	27	4.63	.839	25	4.60	1.000	38	4.21	1.143
Curriculum Development	75	4.51	.860	48	4.35	1.062	27	4.26	.944	25	4.20	1.291	38	4.45	1.032
Behavior Modification	75	4.51	.906	48	4.50	.945	27	4.30	1.068	25	4.52	.872	38	4.47	.862
Art Projects	75	3.87	1.308	48	3.40	1.395	27	3.44	1.281	25	3.56	1.446	38	3.87	.991
Developmentally Appropriate Practices	75	4.57	.857	48	4.54	.713	27	4.37	.967	25	4.60	.866	38	4.58	.858
STEM Projects	75	3.96	1.257	48	4.10	.994	27	4.00	1.074	25	4.40	1.118	38	3.95	1.038
Science Projects	75	3.79	1.266	48	3.88	1.231	27	3.85	1.099	25	4.16	1.179	38	3.89	1.158
Social Development	75	4.67	.684	48	4.40	1.067	27	4.67	.480	25	4.64	.860	38	4.55	.645
Building Resilience	75	4.35	1.020	48	4.04	1.254	27	4.26	1.059	25	4.28	1.100	38	4.24	1.149
Classroom Environment Organization	75	4.48	.950	48	4.48	.799	27	4.67	.679	25	4.44	1.003	38	4.32	1.016
Use of Play in the Classroom	75	4.52	.906	48	4.23	1.036	27	4.44	.847	25	4.60	.866	38	4.39	1.028
Shaken baby syndrome	75	3.91	1.444	48	3.88	1.511	27	3.78	1.340	25	3.64	1.655	38	4.39	1.028
CPR/First Aid	75	4.51	.991	48	4.27	1.216	27	4.30	1.265	25	4.64	.860	38	4.66	.627

Cognitive development	75	4.52	.991	48	4.40	1.005	27	4.41	.971	25	4.56	1.003	38	4.50	.762
Emotional development	75	4.72	.669	48	4.52	.945	27	4.67	.679	25	4.80	.645	38	4.66	.627
Transitions	75	4.53	.859	48	4.42	.942	27	4.59	.501	25	4.44	1.121	38	4.29	.927
Guidance	75	4.59	.755	48	4.23	1.096	27	4.44	.698	25	4.44	1.003	38	4.42	.858
Age Specific Issues (ex: biting, temper tantrums)	75	4.49	.950	48	4.27	1.162	27	4.41	.971	25	4.20	1.291	38	4.50	.762
Infant Development	75	3.99	1.475	48	3.69	1.626	27	3.93	1.412	25	3.56	1.758	38	4.13	1.256
Toddler Development	75	4.13	1.436	48	4.08	1.318	27	4.00	1.359	25	3.84	1.599	38	4.29	1.160
Preschool Development	75	4.55	.859	48	4.40	.869	27	4.44	.847	25	4.36	1.319	38	4.50	.762
Concept Development	75	4.32	1.016	48	4.25	1.101	27	4.30	.953	25	4.40	1.225	38	4.39	.855
Dramatic Play	75	4.20	1.139	48	3.98	1.229	27	4.22	.934	25	4.12	1.166	38	4.18	.896
Math in the Classroom	75	4.03	1.252	48	4.10	.928	27	4.22	.934	25	4.24	1.200	38	4.24	.913
Nutrition	75	3.95	1.283	48	3.83	1.260	27	4.00	1.074	25	4.16	1.281	38	4.05	1.089
Physical environment	75	4.25	1.152	48	4.06	1.099	27	4.30	.823	25	4.60	.866	38	4.32	.739
Children’s Literature	75	4.24	1.149	48	4.19	1.024	27	4.41	.694	25	4.60	.866	38	4.45	.760
Child Development Theory	75	4.36	1.022	48	4.23	1.036	27	4.19	.921	25	4.56	.712	38	4.26	1.005

Research Question 4

Are there group differences in the child care providers' perceptions of barriers to implementation of their training by education or experience?

Hypothesis. There will be group differences in child care providers' perceptions of barriers to implementation of their training by education and experience.

To address Research Question Four, a MANOVA was conducted to examine differences in the perceptions of barriers by education and work experience. The continuous dependent variable corresponded to perceptions of barriers (see items 70 through 80 in Appendix A). The first independent grouping variable corresponded to education level: High School, Some College, Associates, Bachelors, and Graduate. The second independent grouping variable corresponded to experience: 0-5 years, 6-10 years, 11-15 years, 16-20 years, and 21+ years.

Overall MANOVA between-subjects effects

The results of the overall MANOVA by education were not statistically significant, $F(12, 442) = 1.68$, $p = .067$, partial $\eta^2 = .039$, indicating there were not significant differences in barriers to implementation by education level. The results of the overall MANOVA by work experience were not statistically significant, $F(21, 480) = 0.63$, $p = .899$, partial $\eta^2 = .035$, indicating there were no significant differences in barriers to implementation by work experience. The results of the overall MANOVA by education level*work experience were not statistically significant, $F(69, 499) = 0.65$, $p =$

.92, partial $\eta^2 = .112$, indicating there were not significant differences in barriers to implementation by education level*work experience. The results of the overall MANOVA is presented in Table 14. Tables 15 and 16 show the statistics for the perceptions of barriers scores by education level and experience level.

Table 14

Multivariate Analysis of Variance Table for Perceived Knowledge, Useful Knowledge, and Barriers by Education and Level of Experience

Term	Wilk's Lambda	*df*	*F*	*p*	Partial η^2
Education	0.888	(12, 442)	1.686	.067	.039
Work experience	0.899	(21, 480)	0.865	.638	.035
Education*Work experience	0.700	(69, 499)	0.920	.658	.112

Table 15

Summary Statistics for Perceptions of Barriers by Education

Combination	High school diploma			Some college			Associate/technical degree/CDA			Bachelor's Degree			Graduate degree		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
It is often expensive to implement what I learned	25	3.08	1.077	55	3.16	1.244	46	3.15	1.229	64	3.12	1.175	17	3.06	1.144
The training may not apply to the age group with whom I work	25	3.32	1.145	53	2.89	1.171	46	3.24	1.177	64	3.12	1.148	17	3.18	.883
The curriculum used by the center does not allow me to make changes	25	2.64	1.319	55	2.38	1.163	46	2.30	1.190	63	2.33	1.063	17	2.88	1.111
The materials that I need are not available to me	25	2.88	1.453	55	2.93	1.372	45	3.13	1.375	64	3.00	1.247	17	3.00	1.225
Trainings are hard to understand	25	2.12	.971	55	1.67	.795	46	2.02	.882	64	1.94	.833	15	1.73	.704

There is not enough time for me to implement what I learn	25	2.76	1.332	55	2.65	1.350	46	2.87	1.343	63	3.19	1.293	17	3.35	1.320
The director is not supportive of me implementing these changes	25	1.84	.987	54	1.96	1.149	46	2.09	1.208	64	1.98	.984	17	2.06	1.029
I don't feel confident implementing what I learn	25	2.00	1.118	53	2.06	1.027	46	2.33	1.175	62	2.29	1.233	17	2.24	1.091
I don't usually agree with what I learn in trainings	25	2.04	1.060	55	1.73	.971	46	2.11	1.059	64	1.89	.875	17	2.06	.899
I don't usually pay attention to the trainings because they aren't enjoyable	25	2.04	1.136	55	1.42	.762	46	1.91	1.112	64	1.91	.971	17	1.88	.928
I would rather do things the way I think is best	25	2.44	1.083	54	1.87	.991	46	2.22	1.134	64	2.20	1.129	17	2.29	1.047

Table 16

Summary Statistics for Perceptions of Barriers by Work Experience

Combination	0-5 years			6-10 years			11-15 years			16-20 years			21+ years		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
It is often expensive to implement what I learned	71	3.13	1.158	46	3.00	1.229	27	3.22	.974	22	3.27	1.316	38	3.11	1.247
The training may not apply to the age group with whom I work	70	3.19	1.120	46	3.22	1.228	27	3.15	.907	21	3.19	1.365	38	2.87	1.095
The curriculum used by the center does not allow me to make changes	70	2.39	1.146	46	2.48	1.278	27	2.33	.961	22	2.68	1.249	38	2.37	1.101
The materials that I need are not available to me	71	3.04	1.419	46	3.07	1.143	27	3.00	1.177	21	3.43	1.502	38	2.66	1.279
Trainings are hard to understand	71	1.83	.845	45	2.13	.944	26	1.92	.891	22	1.73	.631	38	1.84	.823

There is not enough time for me to implement what I learn	71	2.89	1.420	46	3.17	1.198	27	3.15	1.460	22	3.23	1.152	38	2.53	1.246
The director is not supportive of me implementing these changes	71	1.93	1.150	45	2.13	1.014	27	2.15	1.134	22	1.91	1.151	38	1.89	.953
I don't feel confident implementing what I learn	71	2.18	1.199	44	2.20	1.091	26	2.00	.938	22	2.64	1.255	38	2.16	1.128
I don't usually agree with what I learn in trainings	71	1.90	1.071	46	2.02	1.064	27	1.74	.712	22	2.09	.750	38	1.97	.944
I don't usually pay attention to the trainings because they aren't enjoyable	71	1.75	.952	46	1.96	1.074	27	1.78	.974	22	1.68	.995	38	1.76	.998
I would rather do things the way I think is best	70	2.31	1.097	46	2.35	1.140	27	1.96	.980	22	2.00	1.024	38	1.95	1.089

Summary

This study examined what kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. In this chapter, the findings of the data analyses were presented. Descriptive statistics were utilized to explore the trends in the nominal and interval level variables. No significant associations were found for any of the research questions, providing no support for any of the study hypotheses.

CHAPTER V

DISCUSSION

This quantitative study examined what kinds of knowledge child care providers perceive that they need, how they prefer to receive this training, what types of knowledge are most useful to them, and what barriers exist to applying what they have learned in their classrooms. First descriptive statistics were computed to provide frequencies, variable descriptive, and to check the normality of the data. Of the 227 participants, 60% of them had an associate's degree or higher, and 26.4% had some college, indicating a relatively high level of education in this sample. The next key component of the study was the teachers' years of experience. Of the 227 participants, 35.7% of the participants had worked 5 years or less in the field of early childhood; 21.6% of the participant pool worked between 6 to 10 years. This means the majority of the participant pool had some form of degree but had worked less than 10 years in child care.

Using a MANOVA and a chi-square, the study identified what the child care providers perceived their level of knowledge on child development, what knowledge they deemed most needed in child development trainings, where they prefer to receive their trainings, and what barriers they feel make the most significant impact their ability to implement the training. While none of the MANOVAs or the chi-square suggested any significance related to years of experience or education level, the data still had some valuable information that supported the need for understanding the teacher's perceptions

on these topics. The theoretical framework for the study suggests that both environment and self-efficacy can play a role in how the child care providers perceived their trainings and even where they receive their trainings. In addition, the data supported the previous research related to the value of strong professional development for child care providers.

Child Care Providers' Perceived Knowledge

Child care providers gave self-reports of their perceived level of knowledge, with an average level of perceived knowledge indicated (M = 3.47, SD = 0.42). This suggested that most child care workers felt they have some knowledge. Of the 21 child development topics surveyed, five of the topics had none of the participants state they had *no knowledge* of this topic. This means all the participants felt they had least had some knowledge of these five topics. Included in these five topics were physical milestones, play style, children's feelings, separation anxiety, and communication with parents. These topics are part of the state of Texas required training for child care providers (Texas DFPS, 2016).

The child development topic that participants seemed to feel most knowledgeable about was communication with parents (M = 3.67) followed closely by developmental milestones (M = 3.63). This is promising since NAEYC's statement on DAP (Bredekamp & Copple, 2009) identified these two child development topics as key concepts in a strong child care program. Additionally, parent communication has been found to be key to parents' views of quality in other studies (Murray et al., 2014; Sosinsky et al., 2015),

and Sosinsky et al. (2015) found that the parents rated the teacher's understanding of developmental milestones as the most important factor in deciding on a quality child care center.

While all the scores Median ranged higher than a 3.0, the lowest score was related to understanding children's memory (M = 3.19, SD = .690). Passolunghi and Costa (2016) discussed how working memory impacts a preschool child's learning process. The study suggested early intervention could not only improve early numerical skills but could increase overall cognitive processing. Passolunghi and Costa (2016) suggested that further research examining how child care centers could increase preschool children's working memory with the right programs. The current study has identified that child care providers have some knowledge of how children's memory works. However, this lower score can be used to help improve trainings regarding children's memory and how it can impact a child's cognitive development to help increase child care providers' confidence in this topic. Overall, administrators and trainings should understand where the teachers have the greatest need for growth. Future research should continue to build on what child care providers perceive to be their knowledge base and provide a way to help child care providers to determine if their perceptions are accurate.

Preferred Training Choice

This study also examined how child care providers choose their trainings. The survey asked the participants to identify the various ways they receive their trainings. While there was no signification relationship between experience level and education

level, there was one type of training the child care providers identified as their preferred method of receiving trainings. The most frequently observed category of training sources was on-site workshops/training (*n* = 62, 27%). The child care providers identified online trainings (*n* = 43, 18.94%) as their next choice for trainings. This supports the research that using online trainings is on the rise out of convenience for the child care provider (Gable & Halliburton, 2003). However, trainings conducted at the child care center provide the most convenient type of training for the child care provider. Gable and Halliburton (2003) stated that their study identified that distance is a barrier to having access to training.

The current study offers additional support for Gable and Halliburton's (2003) findings that the majority of child care providers may prefer training on-site. However, this study did not ask the child care providers if they had children or the number of children. This could play a factor in the higher score regarding child care providers' desire to have the training onsite. Gable and Halliburton's suggested that trainings that happen off-site often require additional money and additional time outside of working hours. These two factors could have impacted their desire for on-site training. This supports this study's theoretical framework. Bronfenbrenner (1981) suggested that child care providers' microsystem affects their interactions with the mesosystem. Understanding the teachers needs to be closer to family, meet work requirements, and provide economically for the family could explain how the teachers choose their

trainings. This information should be used by child care centers to encourage them to identify ways to help their child care providers receive their needed trainings. This could include offering more trainings onsite for their employees. Still, they should also consider compensation, time spent on the child care providers days off, and whether the child care provider would need child care for their children to attend their trainings.

Child Care Providers Useful Knowledge

Understanding what teachers desire to gain more knowledge will help trainers provide trainings that meet the child care provider's needs (Gable & Halliburton, 2003). This study asked the participants to discuss what child development topic they found most useful. The current study did not show a relationship between education level and experience concerning the knowledge the participants find useful. However, once each item was reviewed this study found that child care providers with only a High School Diploma found CPR/First aid (M = 4.75), Shaken baby (M = 4.71), toddler development (M = 4.61) and infant development (M = 4.64) trainings to be more useful to them then Associate, Bachelor, or Graduate level child care providers. These trainings are part of the state of Texas required orientation before any child care provider can be left alone with a classroom (Texas DFPS, 2016). This could explain why child care providers found these topics to be the most useful topics. In addition, CPR/First Aid training is required to be renewed every four years (Texas DFPS, 2016). This finding should be researched further to determine why these items were more important to the less educated child care

providers. This study supports previous research that states that education plays a role in what teachers find beneficial to their classrooms. Most of the scores for the items relating to usefulness had a score of approximately $M = 4.0$ or higher. This stated that child care providers viewed all the trainings listed in the survey as useful to them in the classroom.

The Barriers to Implementing Trainings

The present study explored the association between education level and experience with perceived barriers child care providers experience when trying to implement their trainings in the classroom. The study did not find a significant difference in the relationship between barriers to implementation and experience level; when education and barriers were examined, the barrier that stated, "I don't usually pay attention to the trainings because they aren't enjoyable." High school graduates listed this as a barrier to the implementation a training ($n = 25$, $M = 2.04$, $SD = 1.136$). The barrier with the largest barrier score stated that professional development is often too expensive to implement ($M = 3.13$). The next closest barrier was related to training not applying to the age group they work with ($M = 3.12$). However, none of the items scored above an average of 3.5. This suggests participants in this study found none of the barriers listed actually kept them from implementing the training in their classroom. This does not mean there are no barriers to training; this could just mean these items are not what child care providers view as barriers. Badri et al. (2016) suggested that there are different types of barriers for teachers. Their study focused on why they might not attend professional

development and stated that conflicts with work were one of the largest barriers. This study found that teachers want professional development to be conducted on-site. However, the study did not ask if this was a barrier and should be added to future research.

Limitations

While this study did provide information on child care providers' perceptions of their trainings, the study did have a few limitations. The study used a small and homogenous sample. The size of the sample did not meet the required power it needed for significations. GPower estimated the participants' need for a MANOVA, and the sample would need to be close to 280. It is interesting to note that the researcher was able to recruit 344 participants for the study, but as the outliers were removed, the study was left with only 227 participants. Also, many of the sections were not completed by all 227 participants. For the section on the usefulness of training, the sample size dropped down to 217. In the next section related to barriers to implementation, the sample size dropped to 207. This limitation could have impacted the data collection as it decreased the already small sample size. This suggested that the participants felt the survey was long and did not want to continue further.

The sample was homogeneous due to the overall demographics of child care providers. The sample was 100% female, and 41% of the sample was white. The sample had 48.4 % report having some college or an associated degree. The sample also reported

that 57.3% of the participants were married. This homogenous sample decreased the generalizability of the study. Future research should consider this phenomenon and attempt to consider what length a survey should be for participants to remain in the study. It would be useful for researchers to have a better understanding of what is attractive to this population in terms of incentives and other ways to increase the completion of the study. In addition, future research should seek a more diverse sample, including how to increase male participation.

The survey used in this study was a new tool, and this should be considered a construct validity limitation. The new tool may not have addressed every aspect of what the study needed to collect valid data on the topics. This included not asking the child care providers if they had children and the number of children. Also, the survey required the participant to self-report their perceived knowledge, desired training, usefulness of the trainings, and barriers they have to implement. Their perceived knowledge is what they feel their knowledge base is and does not use any questions to verify that their perceived knowledge is correct. Austin et al. (2019) reviewed the effectiveness of the child care provider's self-report on quality surveys and that it could impact the validity of the questionnaire. Their study suggested that qualitative research could better provide self-report data from child care providers (Austin et al., 2019). In addition, this study's theoretical framework discusses a person's self-efficacy. Bandura (2012) suggests that a

person's self-efficacy can impact their views of their environment and their perceptions of self. This may have affected how the child care provider's answered the survey.

Implications

The study filled a gap in the literature regarding how child care providers view and value the professional development that they receive. Understanding what child care providers feel are the barriers to implementation in the classroom will provide trainers, administrators, and future researchers the ability to identify ways to reduce or eliminate these barriers. It could also improve the quality of care children in these non-parental child care arrangements receive. In addition, this study found that child care providers do perceive they have some knowledge of child care topics and believe that all topics listed are valuable to gain knowledge. However, the study did show that children's memory as a topic that this sample did not feel they had as much knowledge. Administrators and trainers should use this information to provide training on how working memory impacts child development and future academic success. Also, administrators should consider working with their staff on what their strengths and weaknesses are in their knowledge base. This would include understanding the child care provider's knowledge base and addressing any misconceptions in their knowledge base.

While education and experience level did not impact the relationship between knowledge base and choice in trainings, the study did suggest that as child care providers increase their educational level, their desire to keep learning increases. Understanding

that trainings positively impact the classroom and provide a higher quality environment for the students in the classroom, administrators should encourage their child care providers to receive some type of education. This could be through providing on-site educational opportunities, and compensation for the classes need to earn certifications. Administrators and lawmakers should look for ways to help provide incentives for increased formal education.

The study found that child care providers found that trainings offered on-site are the most desired type of training. This provided support of previous research on on-site training and provided a barrier not listed in the survey's section on barriers. While the location of the training was not listed as a barrier for implementation, this study did provide a starting point for addressing child care provider's perceived barriers to implementation. Administrators should encourage their child care providers to discuss access to child care trainings. This includes understanding what might be the reason behind the child care provider need the training to be onsite. What factors play a role in making onsite training the most appealing way to receive training. These factors could include personal time need to do the training, needing child care for the children they have in their home, and the lack of compensation for the training when it is done off-site. Understanding these key factors could provide child care centers and an opportunity to increase their teachers' knowledge base in a more inviting learning environment for the child care provider.

Future Research

While this study supported the previous literature on the importance of training for teachers, the study had limited significance among the research variables (Sheridan et al., 2009). This study suggests that future research should identify how child care providers obtained their strong knowledge base. This includes more research on how their knowledge is obtained (i.e., through college or professional development). Early et al. (2006) identified that education level was not a predictor of classroom quality. Further research should examine what perceptions teachers have concerning classroom quality. This study addressed their perceptions of their knowledge and knowledge usefulness by adding child care providers' views on whether trainings add to their quality, which may provide additional insight into how child care providers choose and implement their trainings in the classroom.

Future research should examine what child care providers understand about working memory and its impact on child development. Understanding this could help child care providers better understand this topic and help promote memory building curriculum in their classroom. This study also found barriers that need to be researched further to build a more robust barriers section of the survey. This includes determining if there are different types of barriers that child care providers view not initially addressed. Further research should continue to evolve the survey and consider turning that section of the tool into an interview to receive child care providers' perceptions in narrative form.

Summary

This chapter described the discussion of the findings of this study. The strengths and weaknesses were described, and the need for future research was discussed. This study identified on-site training as the preferred method of receiving classroom training. This previously supported literature that stated the location of the training played a role in a child cares provider's ability to attend training (Gable & Halliburton, 2003). The study supported literature that child care providers perceived knowledge strengths align with the NAEYC's DAP (Copple, et al., 2007) guidelines and the key knowledge needed for quality. The study discussed what areas further research should focus on to help promote a stronger understanding of child care providers' perceptions of their knowledge, training preferences, useful knowledge, and barriers in child care training. Understanding the child care providers' perceptions of their trainings is key to promoting quality in the child care classroom.

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APPENDIX A

Instrument Survey

Child Care Providers' Perceptions of Training Needs and Barriers to Implementation

Texas Woman's University
Family Sciences
P.O. Box 425769
Denton, TX 76204

CAREGIVER QUESTIONNAIRE

TEXAS WOMAN'S UNIVERSITY (TWU)

CONSENT TO PARTICIPATE IN RESEARCH

Title: Child Care Providers' Perceptions of their Training Needs and Barriers to Implementations

Principal Investigator: Renee Herrin..... rherrin@twu.edu

Faculty Advisor: Katherine Rose, Ph.D..... krose1@twu.edu

Summary and Key Information about the Study

We are interested in finding out more about the types of training that you desire for your work with children. Also, we are interested in understanding how you feel about the types of training that you think are needed by those caring for young children and the barriers you have when implementing a training. The attached questionnaire includes questions about your background, perceptions of training needs for yourself and child care providers as a whole, perceptions about your level of knowledge about young children, and the barriers to implementing the trainings. Please answer only the questions that you feel comfortable responding to, knowing that your responses are ***anonymous***. By filling out the survey, you allow the Principal Investigators to use the results in conference presentations and/or research publications. However, information is collected anonymously; therefore, the information you provide cannot be linked to your name or personal information. Your employer or coworkers will not have access to the answers you provide on this survey.

Your participation in this study is entirely voluntary. If you are interested in learning more about this study, please review this consent form carefully and take your time deciding whether or not you want to participate. Please feel free to ask the researcher any questions you have about the study at any time.

Description of Procedures

As a participant in this study, you will be asked to spend 25 to 30 minutes of your time taking a Psychdata survey. The survey consists of question regarding your views on your training and what barriers you find in implementing that training. An additional time of approximately 5 minutes is needed to fill out the form related to the drawing of the gift cards. You may choose only to fill out the survey and not enter into the contest. To be a participant in this study, you must be at least 18 years of age or older and be a child care working in the State of Texas.

Potential Risks

There is a potential risk of loss of confidentiality in all email, downloading, electronic survey, and internet transactions.

If you submit your personal information for the contest drawing, none of that information will be connected to your answer to the research survey. These two surveys are separate, and this gives you anonymity in the research survey. All information for the drawing will be kept in Psychdata. Only the researcher and advisor will have access to this information that is password protected.

Participation and Benefits

Your involvement in this study is ***entirely voluntary***, and you may withdraw from the study at any time. If you would like to know the results of this study, we will email or mail them to you.*

Questions Regarding the Study

If you have any questions about the research study, you should ask the researchers; their contact information is at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the TWU Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

Please keep in mind that the return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

GENERAL INSTRUCTIONS: Some of the questions in this booklet ask you to write in your response. There will be a blank where you can write your response.

For other questions, answer by selecting a single number or letter to the left of the short list of answers like this:

In general, would you say that you enjoy outdoor activities (such as running, biking, canoeing)?:

1 Not at all
2 A little
3 Somewhat
4 Quite a bit
5 A great deal

SECTION A

The first section of this questionnaire asks about your background and who you are.

*1) Are you a:

- ○ Director [Value=1]
- ○ Classroom Teacher [Value=2]
- ○ Child Care Assistant [Value=3]

*2) How old are you (in years)?

*3) What is your gender?

- ○ Female [Value=1]
- ○ Male [Value=2]

*4) What is the average yearly income from all sources, for your family?

- ○ below $5,000 [Value=1]
- ○ $5,001-$9,999 [Value=2]
- ○ $10,000-$19,999 [Value=3]
- ○ $20,000-$29,999 [Value=4]
- ○ $30,000-$39,999 [Value=5]
- ○ $40,000-$49,999 [Value=6]
- ○ $50,000-$59,999 [Value=7]
- ○ $60,000-$69,999 [Value=8]
- ○ $70,000-$79,999 [Value=9]
- ○ $80,000-$89,999 [Value=10]
- ○ $90,000-$99,999 [Value=11]
- ○ over $100,000 [Value=12]

*5) What is your marital status?

- ○ Single (never married) [Value=1]
- ○ Cohabitating [Value=2]
- ○ Committed to life partner [Value=3]
- ○ Married [Value=4]
- ○ Separated [Value=5]
- ○ Divorced [Value=6]
- ○ Widowed [Value=7]

*6) What is your ethnic background?

- ○ White [Value=1]
- ○ Black or African American [Value=2]
- ○ Spanish/Hispanic/Latino [Value=3]
- ○ Asian [Value=4]
- ○ American Indian or Alaskan Native [Value=5]
- ○ Pacific Islander [Value=6]
- ○ Two or more races: [Value=7]
- ○ Other (please specify) [Value=8]

*7) What Texas County do you live in?

--Select-- ▼

- Harris County [Value=1]
- Dallas County [Value=2]
- Tarrant County [Value=3]
- Bexar County [Value=4]
- Travis County [Value=5]
- Collin County [Value=6]
- Hidalgo County [Value=7]
- El Paso County [Value=8]
- Denton County [Value=9]
- Fort Bend County [Value=10]
- Montgomery County [Value=11]
- Williamson County [Value=12]
- Cameron County [Value=13]

- Nueces County [Value=14]
- Brazoria County [Value=15]
- Bell County [Value=16]
- Galveston County [Value=17]
- Lubbock County [Value=18]
- Webb County [Value=19]
- Jefferson County [Value=20]
- Other (please specify) [Value=21]

Other:

*8) What is the highest level of formal education you have completed?

- Some elementary/middle school [Value=1]
- Some high school [Value=2]
- High school diploma/GED [Value=3]
- CDA [Value=4]
- Some college [Value=5]
- Associate/Technical Degree [Value=6]
- Bachelor's Degree [Value=7]
- Some post-graduate work [Value=8]
- Master's Degree [Value=9]
- Doctorate Degree [Value=10]

Question Logic
If **[Some elementary/middle school...]** is selected, then skip to question **[#10]**
If **[Some high school]** is selected, then skip to question **[#10]**
If **[High school diploma/GED]** is selected, then skip to question **[#10]**
If **[CDA]** is selected, then skip to question **[#10]**
If **[Some college]** is selected, then skip to question **[#10]**
If **[Associate/Technical Degree...]** is selected, then skip to question **[No logic applied]**
If **[Bachelor's Degree]** is selected, then skip to question **[No logic applied]**
If **[Some post-graduate work]** is selected, then skip to question **[No logic applied]**
If **[Master's Degree]** is selected, then skip to question **[No logic applied]**
If **[Doctorate Degree]** is selected, then skip to question **[No logic applied]**

Page Break

*9) Major?

10) What types of informal education have you received (select all that apply)?

- On-site training (at childcare center/home) [Checked=1]
- Off-site training (at school, hotel, conference center, etc.) [Checked=1]
- Professional conferences [Checked=1]
- Books [Checked=1]
- Professional journals [Checked=1]
- Online courses [Checked=1]
- Other (please specify) [Checked=1]

*11) How long have you worked in Child Care (in years and months)?

Years

Months

*12) What is your current job status:

- Full-time [Value=1]
- Part-time [Value=2]

Question Logic
If **[Full-time]** is selected, then skip to question **[#14]**
If **[Part-time]** is selected, then skip to question **[#13]**

Page Break

*13) If part-time, how many hours per week?

*14) Do you have benefits through this job working with young children (health insurance, vacation time, paid sick leave)?

○ Yes [Value=1] ○ No [Value=2]

Question Logic
If **[Yes]** is selected, then skip to question **[#15]**
If **[No]** is selected, then skip to question **[#16]**

Page Break

15) What benefits do you have? (select all that apply)

- ☐ Paid Time Off [Checked=1]
- ☐ Holiday Pay [Checked=1]
- ☐ Medical Insurance [Checked=1]
- ☐ Dental Insurance [Checked=1]
- ☐ Vision Insurance [Checked=1]
- ☐ Short Term Disability [Checked=1]
- ☐ Long Term Disability [Checked=1]
- ☐ 401K [Checked=1]
- ☐ Other (please specify) [Checked=1]

16) Which professional development organizations do you participate in? (Select all that apply)

- ☐ National Association for the Education of Young Children [Checked=1]
- ☐ Texas Association for the Education of Young Children [Checked=1]
- ☐ Local Association for the Education of Young Children [Checked=1]
- ☐ National Child Care Association [Checked=1]
- ☐ Association for Childhood Education International [Checked=1]
- ☐ Child Care Aware of America [Checked=1]
- ☐ National Head Start Association [Checked=1]
- ☐ None [Checked=1]
- ☐ Other (please specify) [Checked=1]

Page Break

SECTION B

In this section, we would like to get some information about your level of knowledge in Child Care.

---

*17) Compared to other people that you know who work as child care providers/early childhood educators, how would you rate your level of knowledge about child development (how children learn and grow, developmental milestones, developmentally appropriate practice, etc.)?
(1 = I know much less than most in my field; 7 = I know much more than most in my field)

○ 1 [Value=1] ○ 2 [Value=2] ○ 3 [Value=3] ○ 4 [Value=4] ○ 5 [Value=5] ○ 6 [Value=6] ○ 7 [Value=7]

Look at the list below. Please indicate how knowledgeable you feel about each of the topics by selecting the appropriate number.
0 = No knowledge; 1 = Little knowledge; 2 = Some knowledge; 3 = Very knowledgeable

	0 (No knowledge)	1 (Little knowledge)	2 (Some knowledge)	3 (Very knowledgeable)
*18) Physical milestones (crawling, walking, etc.)	○ [Value=1]	○ [Value=2]	○ [Value=3]	○ [Value=4]
*19) Perspective taking (seeing something from someone else's viewpoint, etc.)	○ [Value=1]	○ [Value=2]	○ [Value=3]	○ [Value=4]
*20) Language development (babbling, talking, etc.)	○ [Value=1]	○ [Value=2]	○ [Value=3]	○ [Value=4]

*21) Children's memory	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*22) Attention span	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*23) Play styles (solitary, parallel, cooperative)	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*24) Friendship development	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*25) Peer relations (ability to get along with others of a similar age)	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*26) Moral development	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*27) Prosocial behavior (helping, sharing, cooperating)	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*28) Aggression	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*29) Children's understanding of feelings	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*30) Attachment	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*31) Separation anxiety/Stranger anxiety	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*32) Emotion regulation	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*33) Temper tantrums	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*34) Self-esteem	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*35) Child discipline	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*36) Child abuse & neglect	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*37) Anti-bias curriculum & materials (understanding those from different backgrounds)	[Value=1]	[Value=2]	[Value=3]	[Value=4]
*38) Communication with parents	[Value=1]	[Value=2]	[Value=3]	[Value=4]

*39) Which child development topics do you wish you had more knowledge about? Please be as specific as possible. (If you would prefer not to answer this question, please type the word "Blank" in the space).

(1000 characters remaining)

Page Break

SECTION C

In this section, we are interested in finding out about what types of training and education you find most useful

Please indicate which trainings you feel are most useful to your classroom. 1) Not Useful 2) Somewhat Useful 4) Neutral 3) Useful 5) Very Useful

	Not Useful	Somewhat Useful	Useful	Very Useful
*40) Classroom Management	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*41) Curriculum Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*42) Behavior Modification	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*43) Art Projects	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*44) Developmentally Appropriate Practices	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*45) STEM Projects	[Value=1]	[Value=2]	[Value=4]	[Value=5]

*46) Science Projects	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*47) Social Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*48) Building Resilience	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*49) Classroom Environment Organization	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*50) Use of Play in the Classroom	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*51) Shaken baby syndrome	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*52) CPR/First Aid	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*53) Cognitive development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*54) Emotional development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*55) Transitions	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*56) Guidance	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*57) Age Specific Issues (ex: biting, temper tantrums)	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*58) Infant Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*59) Toddler Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*60) Preschool Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*61) Concept Development	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*62) Dramatic Play	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*63) Math in the Classroom	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*64) Nutrition	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*65) Physical environment	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*66) Children's Literature	[Value=1]	[Value=2]	[Value=4]	[Value=5]
*67) Child Development Theory	[Value=1]	[Value=2]	[Value=4]	[Value=5]

68) Where would you prefer to get your child development knowledge from? (Please select all that apply)

- College courses or formal adult education [Checked=1]
- On-site workshops/training [Checked=1]
- Off-site workshops/training [Checked=1]
- Professional conferences [Checked=1]
- Online courses [Checked=1]
- Books [Checked=1]
- Professional journals [Checked=1]
- Educational videos [Checked=1]
- Internet sites [Checked=1]
- Magazines [Checked=1]
- Other (please specify) [Checked=1]

*69) Of the sources listed, which ONE source would you most prefer to get your child development knowledge from? (Select only one)

- College courses or formal adult education [Value=1]
- On-site workshops/training [Value=2]

- Off-site workshops/training [Value=3]
- Professional conferences [Value=4]
- Online courses [Value=5]
- Books [Value=6]
- Professional journals [Value=7]
- Educational videos [Value=8]
- Internet sites [Value=9]
- Magazines [Value=10]
- Other (please specify) [Value=11]

Page Break

SECTION D

This section of the questionnaire asked about barriers to implementation of child care trainings

Please indicate your level of agreement with the following statements about barriers to implementing what you have learned in your classroom. 1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
70)	It is often expensive to implement what I learned	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
71)	The training may not apply to the age group with whom I work	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
72)	The curriculum used by the center does not allow me to make changes	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
73)	The materials that I need are not available to me	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
74)	Trainings are hard to understand	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
75)	There is not enough time for me to implement what I learn	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
76)	The director is not supportive of me implementing these changes	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
77)	I don't feel confident implementing what I learn	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
78)	I don't usually agree with what I learn in trainings	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
79)	I don't usually pay attention to the trainings because they aren't enjoyable	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]
80)	I would rather do things the way I think is best	[Value=1]	[Value=2]	[Value=3]	[Value=4]	[Value=5]

***81)** What is your level of interest in using social networking sites to connect with other teachers/directors in your field?

- Very interested [Value=1]
- Somewhat interested [Value=2]
- Interested [Value=3]
- Not very interested [Value=4]
- No interest [Value=5]

Automatic Page Break

Child Care Providers' Perceptions of Training Needs and Barriers to Implementation

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS!

To be entered in the contest for one of ten, $25.00 gift cards to a local educational store, please click the "Drawing/Additional Training" link to be taken to a separate area to enter your contact information. Any contact information given in the next screen cannot be linked to the answers you have provided to this survey and will only be used to alert you if you are the winner. In addtion, it will give you the option for addtional online training session if developed from the responses to this survey and if you are interested in participating in such a session (free of charge), or piloting an online training if one becomes available.

To provide contact information for Drawing and Additional Training, please click here:

https://www.psychdata.com/s.asp?SID=184223

For maximum confidentiality, please close this window.

APPENDIX B

Phone Script For Recruitment

Phone Script for Recruitment

Researcher: Good afternoon, may I please speak with [*Director's Name*]?

If the Person is not available: Thank the person who answered and say goodbye.

If the Person is available: First confirm that you are speaking to the correct person.

Researcher: This is Renee Herrin calling from the Texas Woman's Universty. I am a Ph.D. student working with on recruiting child care workers for a study on Teacher's perceptions of their trainings. Is this an Ok time for you to speak?

If the Person says "No" or "I'm not sure"

Researcher: Okay. Can we schedule another time to talk? *If the person is not sure or seems hesitant, will say thank him/her and say goodbye.*

If the Person says "Yes"

Researcher: Great. I wanted to discuss if you would be willing to distribute a flyer for a survey on child care teachers perceptions of their training. We are also looking to identify what barriers teachers find in implementing their trainings once they receive them. Are you interested in learning more or even passing the flyer out to you child care workers?

If the Person says "No" or "I'm not sure"

Researcher: No problem. I wanted to make sure I reached out to Directors personally help them learn about this study we are doing on child care workers. Thank you for your time.

If the Person says "Yes"

Researcher: Eligible child care workers have the opportunity to discuss their perceptions of their trainings and the barriers to implementation. We need participants that currently work in child care, are 18 years of age or older. Estimated time commitment is 25 to 30 minutes total. Benefits include: helping provide information on what teachers are looking for in their trainings and what barriers need to be addressed to help with implementation. Upon completion, you will have the option to be entered into a drawing for one of ten, $25.00 gift cards to a local educational store. I am happy to send you the link for the survey to look over if you would like to know more details about this research study. The consent form is the beginning of the survey and that tells you what

your rights are as a participant, what the study is about, and the risks and benefits of participating.

If the Person is interested in receiving the link for the survey.

Researcher: Does email work for you?

If the Person says "Yes" ask for their email: _____

Researcher: Thanks, I got that. I will email you a copy of the survey and the flyer. Please feel free to look it over and discuss with other Directors or employees. You can contact me with any questions too. I will check back in with you in a few days as well.

Do you have any questions for me at this time?

Answer any questions patient may have.

It was nice speaking with you, and we will be in touch.

APPENDIX C

Social Media Script

Social Media Script

We are looking for child care workers in the State of Texas. They may be eligible to participate in a research study looking at child care workers perceptions of their trainings and the barriers to implementation. If you currently work in child care, are 18 years of age or older then you are who we need. The estimated time commitment is 25 to 30 minutes in total. Benefits include: helping provide information on what teachers are looking for in their trainings and what barriers need to be addressed to assist with implementation. Upon completion, the child care workers will have the option to be

entered into a drawing for one of ten, $25.00 gift cards to a local educational store. Attached is a flyer to hand out to your child care employees. Also, I would share my findings with you and offer my support with training the teachers based on the information learned in the study. Please feel free to forward this flyer or this information to other Child Care workers, directors or National Trainers.

Here is the link to the survey:

https://www.psychdata.com/s.asp?SID=184180

If you have any questions or concerns, please contact Renee Herrin M.S. (rherrin@twu.edu).

*There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings, and internet transactions.

APPENDIX D

Email Script

Email Script

Dear (Insert Director Name),

Research volunteers needed! Are a child care worker? If so you may be eligible to participate in a research study looking at child care workers perceptions of their trainings and the barriers to implementation. If you currently work in child care, are 18 years of age or older then you are who we need. Estimated time commitment is 25 to 30 minutes total. Benefits include: helping provide information on what teachers are looking for in their trainings and what barriers need to be addressed to help with implementation. Upon completion, you will have the option to be entered into a drawing for one of ten, $25.00 gift cards to a local educational store. Attached is a flyer to hand out to your child care employees. Please feel free to forward this flyer to other Child Care Directors.

If you have any questions or concerns, please contact Renee Herrin M.S. (rherrin@twu.edu).

Thank you for your time
Renee Herrin, M.S.

There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions.

APPENDIX E

Research Flyer

VOLUNTEERS NEEDED!

EARLY CHILDHOOD TEACHERS PERCEPSTIONS OF THEIR TRAINING NEEDS AND BARRIERS TO IMPLEMENATION

Child care workers needed to help in a research study about their perceptions of their trainings. This is a 65 questions survey that may take 30 mins of your time. Everyone who completes the survey will be entered into a drawing for one of 10, $25.00 Gift Cards to a Learning Store. If interested in helping shape trainings our understand of what is needed in trainings, please use the following link to take the survey.

https://www.psychdata.com/s.asp?SID=184180

Confidentiality Statement: *There is a potential risk of loss of confidentiality in all email downloading, and internet transactions. This study is voluntary, and you may discontinue at any time.*

CHILD CARE WORKERS NEEDED!

Research Study on Child Care Workers Perceptions.

Chance to win a $25.00 Gift Card

Must be 18 years of age or older.

IF YOU ARE ELIGIBLE AND INTERESTED OR IF YOU HAVE QUESTIONS REGARDING ELIGIBILITY CONTACT:

RENEE HERRIN M.S.
rherrin@twu.edu

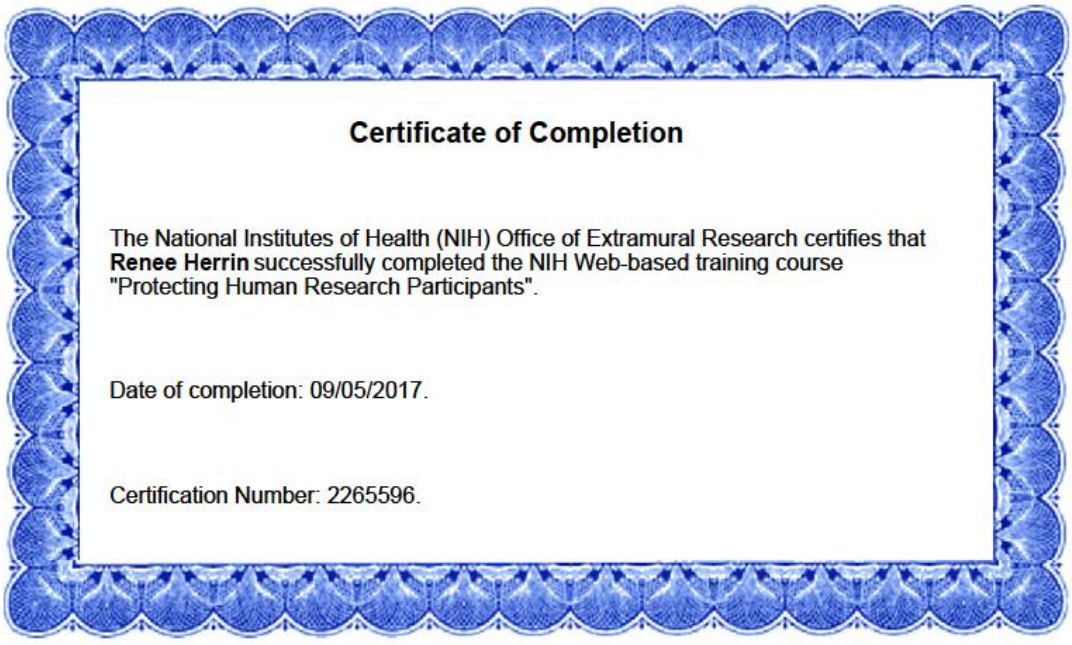
APPENDIX F

CITI Certificate


CITI PROGRAM
Completion Date 28-Nov-2018
Expiration Date 27-Nov-2022
Record ID 21381752
This is to certify that:
Renee Herrin
Has completed the following CITI Program course:
Conflict of Interest mini-course (Curriculum Group)
Conflict of Interest (Course Learner Group)
1 - Stage 1 (Stage)
Under requirements set by:
Texas Woman's University
CITI
Collaborative Institutional Training Initiative
Verify at www.citiprogram.org/verify/?wc3370869-b4c6-4be5-bcb6-a2dd5147b86f-21381752

APPENDIX G

NIH Certificate



Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Renee Herrin** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/05/2017.

Certification Number: 2265596.

APPENDIX H

IRB Approval

TWU
TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

Institutional Review Board
Office of Research and Sponsored Programs
P.O. Box 425619, Denton, TX 76204-5619
940-898-3378
email: IRB@twu.edu
https://www.twu.edu/institutional-review-board-irb/

DATE: January 5, 2019

TO: Ms. Renee Herrin
Family Sciences

FROM: Institutional Review Board (IRB) - Denton

Re: Exemption for Child Care Providers' Perceptions of their Training Needs and Barriers to Implementations (Protocol #: 20414)

The above referenced study has been reviewed by the TWU IRB (operating under FWA00000178) and was determined to be exempt from further review.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. Because a signed consent form is not required for exempt studies, the filing of signatures of participants with the TWU IRB is not necessary.

Although your protocol has been exempted from further IRB review and your protocol file has been closed, any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All forms are located on the IRB website. If you have any questions, please contact the TWU IRB.

cc. Mr. Ron Hovis, Family Sciences
Dr. Katherine K. Rose, Family Sciences
Graduate School

APPENDIX I

IRB Modification Approval

TEXAS WOMAN'S UNIVERSITY
EST 1901 | CO-ED. 1994

The Graduate School
P.O. Box 425649, Denton, TX 76204-5649
940-898-3415 Fax 940-898-3412 www.twu.edu/gradschool

0068775

March 5, 2019

Renee Herrin
rherrin@twu.edu

Dear Ms. Renee Herrin

I have received and approved the prospectus entitled ***Child Care Workers' Perceptions of Training: Needs, Benefits, and Barriers to Implementation*** for your Dissertation research project.

To help reduce the last minute stress of preparing to graduate the Graduate School provides an online formatting guide, the ***Formatting Navigator*** (http://www.twu.edu/gradschool/forms/), as well as personal formatting assistance. Once you have a working draft set an appointment with the Senior Graduate Services Analyst to have the formatting of your paper reviewed.

Once you have successfully defended your completed Dissertation/Thesis and made any changes requested by your committee, you will submit a copy to the Graduate Reader, by the submission deadline or earlier; (See deadline dates at: http://www.twu.edu/gradschool/degree-completion/), who will review it for grammar, spelling, punctuation, and citations.

Utilizing these resources will allow for a smoother submission process.

Best wishes to you in the research and writing of your project.

Sincerely yours,

Ruth A. Johnson

Ruth A. Johnson, Ph.D.
Associate Dean of the Graduate School
Texas Woman's University

eam

cc: Katherine Rose, PhD, Major Professor, Family Sciences
Ron Hovis, PhD, Department Chair, Family Sciences

APPENDIX J

IRB Extension Approval

Institutional Review Board
Office of Research and Sponsored Programs
P.O. Box 425619, Denton, TX 76204-5619
940-898-3378
email: IRB@twu.edu
https://www.twu.edu/institutional-review-board-irb/

DATE: March 14, 2019

TO: Ms. Renee Herrin
Family Sciences

FROM: Institutional Review Board - Denton

Re: Notification of Approval for Modification for Child Care Providers' Perceptions of their Training Needs and Barriers to Implementations (Protocol #: 20414)

The following modification(s) have been approved by the IRB:

Sections C and D of the survey instrument has been re-written to better align with the research questions.

cc. Dr. Katherine K. Rose, Family Sciences

APPENDIX K

IRB Instrument Modification Approval

Institutional Review Board
Office of Research and Sponsored Programs
P.O. Box 425619, Denton, TX 76204-5619
940-898-3378
email: IRB@twu.edu
https://www.twu.edu/institutional-review-board-irb/

DATE: September 16, 2019

TO: Ms. Renee Herrin
Family Sciences

FROM: Institutional Review Board (IRB) - Denton

Re: Extension for Child Care Providers' Perceptions of their Training Needs and Barriers to Implementations (Protocol #: 20414)

The request for an extension of the IRB approval for the above referenced study has been reviewed by the TWU IRB (operating under FWA00000178). This study was originally exempted on January 7, 2019; this study now expires on September 30, 2020.

If applicable, agency approval letters must be submitted to the IRB upon receipt prior to any data collection at that agency. If subject recruitment is on-going and a written consent form is being used, the newly stamped consent form is enclosed. Please use this consent form with the most recent approval date stamp when obtaining consent from your participants. A copy of the signed consent forms must be submitted with the request to close the study file at the completion of the study. A request to close this study must be filed with the Institutional Review Board at the completion of the study. If you do not utilize a signed consent form for your study, the filing of signatures of subjects with the IRB is not required.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. All forms are located on the IRB website. If you have any questions, please contact the TWU IRB.

cc. Dr. Holly Hansen-Thomas, Family Sciences
Dr. Katherine K. Rose, Family Sciences