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AND DESIGNING INSTRUCTION FOR EARLY CHILDHOOD
TEACHERS PROFESSIONAL DEVELOPMENT IN SELECTED
TENNESSEE SCHOOLS**

Jennie Gibson

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A QUANTITATIVE STUDY ON THE CONSTRUCT OF PLANNING AND
DESIGNING INSTRUCTION FOR EARLY CHILDHOOD TEACHERS' PROFESSIONAL
DEVELOPMENT IN SELECTED TENNESSEE SCHOOLS

By
Jennie Gibson

A Dissertation
Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Education

Major: Leadership and Policy Studies

The University of Memphis
August 2019

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Dedication

This dissertation is dedicated to my family and friends who have been incredibly supportive throughout this process. I could not have done it without their encouragement and patience. I especially would like to acknowledge my husband, who became both mama and daddy on many occasions, so that I could attend classes and have time to write and research. You are my rock and my true North. I never would have made it through without you!!!

My three children have cheered me on and never wavered in their belief that I could do this, even when I sincerely had my doubts. My daddy was so proud that I had started working toward this degree, and although he passed away in the middle of this journey, this daddy's girl has felt his love and encouragement the whole time. And I don't believe I could have gotten through some of the difficult days without my mama. She picked up the slack, listened to me vent, and reminded me to rest and to laugh.

Finally, to my friends who have had to put up with me and who were always at the ready with wine and a listening ear, I adore you all! It truly has been a group effort, and the shining stars have been those who worked diligently in the background to provide the love and support that I needed to see this through.

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Abstract

The purpose of this study is to evaluate early childhood teachers' perceptions regarding their specific needs and the job-embedded professional development training they have been provided. The study will explore two core areas regarding the program planning of early childhood teacher professional development: planning context and designing instruction. In this study, planning context includes opportunities for reflection, collaboration and feedback, and choices regarding structure and content. As these are key components of job-embedded professional development, they are included to measure teacher perceptions of prior professional development.

Designing instruction involves the following concepts: topics of student teacher relationships, child development and behavior, student readiness for upper grades, specific content and instruction, diversity, and classroom environment. These topics have been identified in the research as being critical to a high quality early childhood program. Two conceptual frameworks undergird this quantitative study: job-embedded professional development and a program planning assessment process.

The teachers taking part in this study are housed in three types of educational environments: early childhood centers, Prek-1st grade schools, and Prek-2nd grade schools in the state of Tennessee. This study uses an existing data set of teacher responses from the 2018 Teacher Educator Survey as well as demographic data from the Tennessee Department of Education to determine if school size and other demographic features have a significant impact upon teacher perceptions of job-embedded professional development. Utilizing secondary analysis, this quantitative data was coded and analyzed using Statistical Package for the Social Sciences (SPSS) version 23.0. The results of this study provide valuable feedback to school leaders, policymakers, and planners of targeted professional development for early childhood educators.

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Chapter 1: Introduction to the Study

Because one of the key indicators for student success is a great teacher (Barnett, 2004; Phillipsen, Burchinal, Howes & Cryer, 1997; Whitebrook, 2003; Barber & Mourshed, 2007), it is critical that school leaders provide the training and support necessary to create such teachers, especially in the early years when much of the foundational learning is taking place (Buysse, Rous, and Winton, 2008). Barber & Mourshed (2007) assert that the major factor in the disparity in student achievement is the quality of its teachers. Regarding teachers of young students, Barber and Mourshed note:

The negative impact of low-performing teachers is severe, particularly during the earlier years of schooling. At the primary level, students that are placed with low-performing teachers for several years in a row suffer an educational loss which is largely irreversible. (p. 12)

In recent years, much emphasis has been placed on teachers in the early grades (Kamerman & Gatenio-Gabel, 2007), and much emphasis has been placed on the need for effective professional development to address the needs of teachers so that all students, particularly those in the primary grades, have access to a high-quality teacher (Martin, Kragler, & Frazier, 2017).

The topic of this study is the perceptions that teachers of young children have regarding the professional development that they have received. The goal of this study is to provide insight for school leaders as they plan professional development activities for early childhood teachers. Whether professional development regarding was conducted by a highly trained non-district individual with expert content knowledge or a district professional development specialist, teachers are required to implement the goals of the school or school district within their

classrooms. With a more focused and intentional collaborative approach towards professional development, school leaders make optimal data driven decisions regarding the context and design for the professional development opportunities provided to their teachers.

Professional development offerings for those who teach the youngest of our educational population must be well planned and implemented (Kamerman and Gatenio-Gabel, 2007; Cross, 2008; Neuman, 2003). In addition, Pacchiano, Klein, & Hawley (2016) assert that traditional professional development for early childhood teachers is ineffective at sustaining meaningful change in student outcomes. It does not allow for transference and application, and there is much new research regarding early childhood that must be incorporated into the early childhood classroom. There is ongoing research regarding the way that young children learn (Neuman & Cunningham, 2009), there is greater diversity in classrooms (Shonkoff & Phillips, 2000), there is ongoing research into learning environments (Shonkoff & Phillips, 2000), and much is being learned about early childhood development and behavior (Dickinson & Brady, 2006; Neuman, Copple, & Bredekamp, 2000). Many agree that a quality early learning program has both short- and long-term positive outcomes for children (Barnett, 2005), and early childhood education is now seen as a critical aspect of the child's foundation for education and life.

The early years of a child's life have been discovered to be full of social, cognitive, emotional, and motor growth (Sadowski, 2006), and learning in the early grades is an especially formative and productive time for children (Graves, 2006; Kauerz, 2006). The importance of establishing highly effective professional development for early childhood teachers is important to ensure successful school improvement outcomes and learner objectives are met, to "determine whether the design and delivery of a program are effective" (Cafarella & Daffron, 2013, p. 253), and to improve student learning within the early grades. However, few school leaders are trained

in planning a comprehensive professional development program or in conducting an assessment of trainings or workshops for adult learners, particularly those who teach in the field of early childhood education. In this case, conducting an instructional assessment is critical. An instructional assessment is beneficial for several reasons including to assess the participants' experience and readiness to learn, to improve instructional practice, to ensure sufficient resources, to ascertain levels of participants desired learning outcomes, and to provide feedback regarding program evaluation (Cafarella & Daffron, 2013, p. 193). With such lack of knowledge on the program planning processes of assessment when designing professional development, school leaders assume that teachers are prepared to implement change within their respected disciplines. That is, early childhood educators "will be able to apply what they have learned, without planned assistance and support being an integral part of the programs they deliver" (Cafarella & Daffron, 2013, p. 8).

This study reviewed recent developments and recommendations for effective professional development and specifically addressed professional development in early childhood education, both nationwide as well as in the state of Tennessee. In addition, it used the conceptual frameworks of job-embedded professional development and the Interactive Model of Program Planning to consider key aspects of professional development for early childhood educators and to review teacher perceptions of professional development opportunities afforded to early childhood teachers in the state of Tennessee.

Background of the Study

History of Professional Development. A brief review of public education in the United States reflects an increased focus on school reform, accountability and school improvement efforts since *Brown v the Board of Education* (1954) (Alexander & Alexander, 2009, p. 1024).

Brown v Board of Education became a seminal case that would change the course and direction of educating America's youth, particularly those of African American descent, during and after the postwar period. According to Mendez, Yoo, & Rury (2017) *Brown v Board of Education* "declared segregated schools to be inherently unequal and thus unconstitutional" (Cited in Fox & Buchanan, p. 19) While this case was monumental in the integration efforts of American schools, the backlash from America's White counterparts in the form of *white flight* substantially changed the demographics of inner-city neighborhoods and schools. And never before has America witnessed the unprecedented efforts of the federal government's involvement to address inequity within local education agencies (LEA).

Under President Lyndon Johnson the second seminal case regarding school reform was the federal legislation noted as the Elementary and Secondary Education Act (ESEA) of 1965. The transition of African Americans to larger cities for employment and improved living conditions and whites moving into suburbia led to residential segregation and fiscal inequities for urban school systems (Fox & Buchanan, 2017). The ESEA legislation provided Title 1 funds to support schools in poverty-ridden areas within the inner-city school systems and rural areas. In addition, it emphasized the component of professional development as a means of providing more highly qualified instructors in American classrooms (Elementary and Secondary Education Act of 1965).

In addition to the passing of the ESEA legislation, President Johnson launched the federal program called Head Start in 1965 in efforts to address the issues of poverty and access to education (Hudson, 2015). The Head Start program became the first early childhood federal program to provide developmentally appropriate education for poor and disadvantaged children across the nation (U. S. Department of Health & Human Services, 2019). Moreover, the goal of

Head Start was to prepare low-income, non-White, urban young children for school readiness (Tager, 2017). School readiness, a term coined by the founders of Head Start, provides young children an opportunity to “fare better throughout their schooling careers and also have more success in the job market as adults” (Tager, 2017, p. 4). Young children unprepared to enter schools lack specific social skills pertaining to cultural retention such as the ability to “...keep their hands to themselves, share materials, raise their hands and walk in a line” (Tager, 2017, p. 4). Tager (2017) goes on to say that many of these children lack literacy, linguistic, and numeracy skills and socioemotional behavior skills required to enter kindergarten. These children are referred to as the non-school ready child (Tager, 2017). Pacchiano, Klein, and Hawley (2016) point to the Early Childhood Longitudinal Study-Kindergarten Cohort to assert that the current emphasis on early childhood education stems from the evidence that “low-income, high-needs children enter kindergarten significantly behind their better-resourced peers, and that gaps in early academic skills continue to persist or even widen into the elementary years” (p. 4).

In the years following the ESEA legislation, it became clear that simply providing extra funding for professional development was not enough to increase teacher training and student achievement. Because reading was a skill that was critical for student success (Hulme & Snowling, 2013), an amendment was passed in 1974 to the ESEA in the form of the Right to Read Act, which provided additional professional development for literacy teachers. From this point on, professional development would continue to be at the forefront of teacher improvement strategies.

In 1975, the US Congress enacted the Education for All Handicapped Children Act (EAHCA). Since then, it has been amended numerous times. However, with the passage of the

Individuals with Disabilities Education Improvement Act (IDEIA), additional emphasis on funding was placed on teacher training (Alexander, 2009). With funds from this bill, secondary teachers were provided additional professional development to work with students who had reading difficulties in high school, and with the continued emphasis on reading, even vocational teachers were provided additional instruction on the building of vocabulary in their technical courses. Ronald Reagan continued this emphasis on professional development when he commissioned a national panel to study the state of education in the United States, the result of which was the groundbreaking study, *A Nation at Risk: The Imperative for Education Reform*. The report noted that larger numbers of youth were graduating high school neither ready for a career nor higher education (US National Commission on Excellence in Education, 1983). This report called for significant changes in five key areas, one of these areas being professional development. The big difference is that this report focused on all teachers – not just those who taught reading or who were tasked with educating the special needs children. The report noted seven recommendations for improving teacher quality, including higher standards for teacher-preparation programs, 11-month contracts for teachers allowing more time for curriculum and professional development, and mentoring programs for novice teachers that were designed by experienced teachers (US National Commission on Excellence in Education, 1983).

In the later part of the 1980s, President George H. W. Bush called a meeting with all governors for an education summit in Virginia. The result of this meeting was the National Education Goals Panel, which determined eight goals for progress in education. Of the eight goals in this panel, Goal 4 focused solely on teacher education and professional development. Related to this goal, it was determined that “all teachers will have continuing opportunities to acquire additional knowledge and skills needed to teach challenging subject matter and to use

emerging new methods, forms of assessment, and technologies” (Martin, Kragler, & Frazier, 2017, p. 31). This placed the issue of professional development in the forefront for educational change, and the goals became a national policy known as *Goals 2000: Educate America Act*, which was enacted in 1994. “Equity, access, and quality” (Martin, Kragler, & Frazier, 2017, p. 33) became the new yardstick by which all was measured across the states, and there was an increased role for the federal government in providing professional development to meet these priorities. The Comprehensive School Improvement Demonstration Act provided some ground rules for how professional development was to be provided, and the role of the federal government increased in determining what teachers were being taught and how professional development was to be used (U. S. Department of Education, 2004).

By 2000, United States leaders and policy makers had become convinced that education was the key to our economic future, and with President Bush’s focus after the 2000 election on rewriting the ESEA, the end result in 2002 was No Child Left Behind (NCLB). Under NCLB, the government would no longer financially support one day workshops for professional development, and using data driven professional development would be required along with more rigorous professional development (Cohen & Hill, 2001). Professional development was now seen as an important element of improving the outcomes in our schools.

When former President Obama took office, he put forth a stimulus package known as the American Recovery and Reinvestment Act of 2009 (ARRA). Through this program, \$10 billion was provided to schools to hire new teachers and improve existing teachers through professional development. *Race to the Top*, a smaller program (\$3.5 billion), was used to fund specific professional development, and the emphasis was on job-embedded professional development and activities that teachers engage in on a daily basis. This was an introduction of the importance of

collaboration, active engagement, and the ways in which students learn, and it aligned with school improvement goals (U. S. Department of Education, 2009b). It defined what would and would not constitute professional development.

Early Childhood Education. Although the National Association for the Education of Young Children (NAEYC) was created in 1926, it was not until the Head Start program was created in 1965 under President Johnson that a serious focus began on preparing children to start kindergarten with some form of early childhood education. Head Start provided the first publically funded program to address kindergarten readiness for low income children. The success of this program lead states to implement similar programs, and by 2005, over sixty nine percent of US children were involved in similar preschool programs (Zigler and Valentine, Eds., 1979). Kamerman and Gatenio-Gabel (2007) express the importance of early childhood education in their 2007 article on early childhood education policy. They point to research that clearly shows that a high-quality education at the preschool level improves later school success as well as employment and future earnings.

There were several factors that fueled the country's interest in and the growth of early childhood education including social assistance policy, economic policy, and a growing body of child development research. In addition, there began to be a growing interest in school readiness, including emotional and social well-being. Early educational opportunities were now seen as an investment in later economic success in addition to the commonly understood idea that they assisted with success in the academic years to follow preschool (Barnett, 2004).

The No Child Left Behind legislation of 2001, in addition to specifying particular requirements for professional development, also focused on the need to insure that our youngest students would be successful when entering elementary school (Cross, 2008). The legislation

stressed the importance of highly qualified teachers in the classroom and aimed at reducing the achievement gap between students who entered kindergarten with the skills necessary to be successful and those who arrived without such tools for success. Neuman (2003) notes that although the achievement gap is not likely to be erased completely, “it can be reduced substantially through high quality prekindergarten programs that acknowledge that many children do not enter school adequately prepared” (p. 288). Thus, the advent of the idea of universal pre-kindergarten classes evolved out of the NCLB legislation.

By the latter part of the 20th century, educational reformers contend that the United States had begun to move away from the notion that America was *A Nation at Risk* and was moving towards *A Nation at Hope* (The Aspen Institute National Commission on Social, Emotional, & Academic Development, 2018). The National Commission on Social, Emotional, and Academic Development (NCSEAD) provided insight on the learning nature of children addressing the whole child. The authors of this paper explain that following the passage of the federal reauthorization of Every Student Succeeds Act (2015), more authority was given to states and communities, and that this new power provided an opportunity, and an obligation, to teachers and school leaders in local school districts to serve every child and to do so with an understanding of the whole child (The Aspen Institute National Commission on Social, Emotional, and Academic Development, 2018). These concepts of addressing the whole child are not new, particularly in early childhood education where the components of the curriculum involve a nurturing, developmental environment. However, a focus on the whole child as a transformational system’s change is a monumental and deliberate step in school improvement efforts within all levels of schooling to improve student achievement.

Early Childhood Education in Tennessee. With such a strong national focus on early childhood education and the providing of quality teachers to staff these programs, it became apparent that the state of Tennessee needed to do more to address these issues. In 1990, a task force was set up to study the idea of creating a comprehensive, state-funded, early childhood program. In 1998, Tennessee very successfully piloted 30 preschool classrooms which included 5,000 at-risk children. Based upon the success of this program, in 2005, the Tennessee General Assembly created the Voluntary Pre-K (VPK) program. “Pursuant to T.C.A. 49-6-104, the department of education ... established a system of competitive grants and technical assistance to VPK programs that comprehensively address the educational needs of children in at-risk categories identified in the law” (Tennessee Department of Education, n.d.d.).

After 2003, the program was expanded to not only cover the most impoverished in the state but also those students who qualified for the free and reduced lunch program, and in 2004, the Tennessee Department of Education created the Tennessee Early Childhood Learning Developmental Standards (TN-ELDS). These standards were developed “to provide documentation of the continuum of developmental milestones from birth through age five based on the research about the processes, sequences, and long-term consequences of early learning and development” (Tennessee Department of Education, 2018). The standards for four year olds were revised 2012, which aligned them with the content areas of language arts and math as well as with the state standards for kindergarten, and were revised again in 2018. The revised standards continue to serve as a valuable resource for early childhood educators. In addition, Tennessee implemented a Kindergarten Entry Inventory (KEI), which provides teachers with information about what children should know and should be able to do at the beginning of kindergarten (Tennessee Department of Education, n.d.a.). Because much of this information is

new and early childhood research is ongoing, teachers will likely need training and sustained professional development to address the identification of these early skills and to focus on strategies that will bring children up to the level where they need to be in order to be successful (Tennessee Department of Education, n.d.f.).

In 2005, the voluntary pre-kindergarten bill passed, and the amount allocated for early childhood education jumped from 10 million to 35 million which vastly increased the state's investment in Early Childhood Education. Approximately 300 new Pre-Kindergarten classrooms for at-risk four year olds were created which tripled the number of students who were offered the opportunity to experience a pre-kindergarten program (Moore, 2011). By 2009, there were 935 preschool classrooms in the state of Tennessee (Tennessee Department of Education, n.d.d.). Tennessee educational leaders believe strongly in their investment in a quality preschool program because research is compelling that shows what a difference it can make in the life of a child. According to a brief prepared by the Tennessee Department of Education, "Why invest in a quality Pre-K initiative," the early years are a time of "enormous social-emotional, physical, and cognitive growth" (Tennessee Department of Education, n.d.e., n.p.). Secondly, the language and social skills gained in a quality preschool setting prepare children for success in school. The statistics show that "children with a high-quality early learning experience are 40% less likely to need special education." In addition, a child who enters school not reading at the appropriate grade level "has only a one in eight chance of catching up" (Tennessee Department of Education, n.d.e.). Finally, a high-quality preschool experience pays off well into adulthood. According to the brief, for those who have been fortunate enough to have been through such a preschool experience, they are more literate adults, less likely to drop out of school, less likely to need

benefits such as welfare, and less likely to engage in criminal activity (Tennessee Department of Education, n.d.e.).

Because it is so critical that the early childhood teachers are well trained and highly qualified, school leaders must make wise and informed decisions regarding necessary instruction and training for these teachers (Pacchiano, Klein, & Hawley, 2016; National Association for the Education of Young Children, 1993). As the state of Tennessee has specifically focused much of its funding on early childhood education, it is important for school leaders and administrators in Tennessee to have an understanding of not only what constitutes effective professional development as far as the planning context, or structure, but also the design of instruction, or content, of the professional development. In order to better provide meaningful professional development, it is important to look at how teachers perceive the professional development offerings provided. Since much attention has been recently given to the importance of early education for not only our most at-risk students but for the general young population as well, the purpose of this study was to evaluate teacher perceptions of professional development provided to early childhood teachers. The teachers taking part in this research study are housed in three types of educational environments: early childhood centers, PreK-1 primary schools, and PreK-2 elementary schools – all in the three regions of the state of Tennessee (West, Middle, and East). The challenge for district administrators is to provide effective professional development for early childhood teachers that is well structured and which contains content that enhances student achievement.

To implement newly established initiatives, high-quality and sustainable support systems are needed. Such support systems entail building communities of practice that motivate teachers and other staff to approach and embed innovations within their core practices. However,

creating support systems for buy-in is not enough. The school leader not only must have a vision in place for the implementation of the new initiative, but a means to determine the status of the knowledge and skills of key personnel within the environment.

On the very local level within school districts, the school principal is charged with evaluating teacher performance and providing feedback to teachers regarding their development, yet several questions remain regarding teacher performance: What are the barriers in the planning process that prevent the success of classroom teachers from implementing the innovation or initiative? What skills must teachers hone to increase learner success and increase their performance levels? What content within professional development do early childhood teachers purport they need to be successful in their classrooms to improve student learning?

Problem Statement

While most agree that a professional development program is vital to improving the knowledge and skills of teachers and to prepare teachers to meet the needs of their students (Lampert, 2010; Luke & McArdle, 2009; Green, 2013), ongoing research is critical to add to the growing body of research which considers teacher perceptions of the professional development that they are provided, especially for those teachers who are charged with building a foundation for learning in the youngest of the educational population (Maxwell, Field, & Clifford, 2005). Sheridan, Edwards, Marvin, and Knoche (2009) provide a succinct and authentic rationale for a strong emphasis on the importance of increasing the instructional and developmental capacity of early childhood educators. The authors profoundly state:

Early childhood educators are being asked to have deeper understandings of child development and early education issues; to provide richer educational experiences for all children, including those who are vulnerable and disadvantaged; to engage children of

varying abilities and backgrounds; to connect with a diverse array of families; and to do so with greater demands for accountability and, in some cases, fewer resources, than ever before. The importance of understanding the qualities of early childhood educators that contribute to optimal child learning and development has been heightened in recent years with the passage of the No Child Left Behind Act of 2001 (Public Law 107–110) and its complement in early childhood policy, Good Start, Grow Smart (Sheridan, Edwards, Marvin, & Knoche, 2009, p. 277).

And, as greater accountability is placed on schools and teachers, there is a need for teachers of young children to play a stronger role in preparing our young children and youth for college and career readiness.

Teachers are generally required to attend professional development sessions, but attendance does not guarantee growth, improvement, or teacher effectiveness. Although much research has been done, ongoing research is needed to determine what kind of professional development early childhood teachers need and desire (Maxwell, Field, & Clifford, 2005; Winston, McCollum, & Catlett, 2008). Martinez-Beck and Zaslow (as cited in Sheridan, et al., 2009) support the need for ongoing professional development of early childhood educators by stating: "...the professional development of practicing early childhood educators is considered critical to the quality of experiences afforded to children" (p. 277). The goal is to accrue highly effective early childhood educators in every classroom. Research conducted by Sanders & Rivers (as cited in Varlos, 2009, para. 1) indicated that "students who have highly effective teachers for three years in a row will score 50 percentile points higher on achievement tests than students who have less effective teachers three years in a row". If plausible, the trajectory of American education could change.

To begin the process of transforming educational practice within classrooms, it is critical that administrators and other stakeholders begin the process of diagnosing the instructional needs of teachers to set performance expectations and goals tied to the organization's core mission and values. A first step in the transformational process towards creating actionable results in school improvement is to ensure that teachers are prepared to meet the challenges of the diverse student learners and that they have received the support needed to improve their own teaching and growth. One manner is to determine the current state of the needs of the targeted population. Conducting a needs assessment, particularly regarding specific types of job-embedded learning, provides stakeholders within the organization feedback regarding further support needed to determine program or instructional improvements.

To determine the needs of teachers in this study, the researcher chose to posit this study within the frame of program planning assessment. The program planning assessment process includes five distinct elements: the assessment at entry, assessment of instructional processes and resources, assessment of the learning objectives, assessment to assist learning, and assessment to provide data for the overall educational program (Caffarella & Daffron, 2013, pp. 193-199). This study focused on the later of the two elements: assessment to assist learning and assessment to provide data for the overall educational program. These two elements are directly related to planning of the context of the professional development and designing instruction for the targeted population.

Therefore, the aim of this study was to add to the body of knowledge on school improvement by providing valuable feedback on the planning of job-embedded professional development for early childhood educators and teachers' needs for targeted professional

development that supports both student success and efficacy and teacher efficacy and performance.

Purpose of the Study

The purpose of this quantitative study was to explore early educators' responses regarding the job-embedded professional development index in two specific core areas: planning context and design instruction. In this study, planning context includes opportunities for reflection, collaboration and feedback, and choices regarding structure and content. Designing instruction involves the following concepts: topics of student teacher relationships, child development and behavior, student readiness for upper grades, specific content and instruction, diversity, and classroom environment.

The teachers taking part in this study were housed in three types of learning environments: early childhood centers, Pre-K to 1st grade schools, and Pre-K to 2nd grade schools in the state of Tennessee. This study uses an existing extant data set of teacher responses on the 2018 Tennessee Teacher Educator Survey to gain a more complete understanding of teacher perceptions of job-embedded professional development activities. Additionally, the study determined if a relationship existed across early childhood educators' schools related to demographics: size of school, percentage of English Language Learners (ELLs), percentage of economically disadvantaged students, and student ethnicity and sex. The goal of these analyses was to gain a deeper understanding into the factors that influence the overall effectiveness of professional development for teachers in the early learning grades.

Research Question(s) and Hypotheses

This quantitative study involved an instructional assessment that provided insight into the perceptions of early childhood teachers regarding their experiences with job-embedded

professional development. As much of the research on professional development says that there are certain features that make professional development for adults effective, one particular discerning factor is the planning context. In addition, a second factor in is a growing body of research that points to certain specific needs of early childhood teachers related to designing instruction of their professional development. The researcher used the following research questions to ascertain the feedback regarding the degree of early childhood teachers' perceptions of selected targeted learning outcomes.

In regards to the planning context and designing of instruction for professional development of early childhood educators, the following research question(s) were used:

1. To what extent do early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?
2. To what extent do early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?
3. Is there a correlation between teacher perceptions of professional development and school size?
4. Do teacher perceptions of professional development differ based on any school demographic characteristics?

The following hypotheses were formulated to address the relationship of selected demographic variables and the planning context and designing instruction constructs of this study:

H₀1: Teachers perceive their professional development provides a sufficient opportunity

for reflection, collaboration, and feedback, addresses their unique/individual needs, and allows for teacher choice in structure and content.

- H_A1: Teachers do not perceive their professional development provides a sufficient opportunity for reflection, collaboration, and feedback, addresses their unique/individual needs and allows for teacher choice in structure and content.
- H₀2: Teachers perceive that their professional development satisfactorily addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity, and classroom environment.
- H_A2: Teachers do not perceive that their professional development satisfactorily addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity, and classroom environment.
- H₀3: There is no statistically significant correlation between teacher perceptions of professional development and school size.
- H_A3: There is a statistically significant correlation between teacher perceptions of professional development and school size.
- H₀4: There is no statistically significant relationship between teacher perceptions of professional development and school demographic data.
- H_A4: There is a statistically significant relationship between teacher perceptions of professional development and school demographic data.

Conceptual Frameworks

Most agree that an effective professional development program is vital component towards improving the knowledge and skills and preparation of teachers in successfully meeting the needs of their diverse students (Lampert, 2010; Luke & McArdle, 2009; Green, 2013).

However, there is much to learn about teachers actual learning and involvement with their professional development experience, especially those teachers who are charged with building a foundation for learning in the youngest of the educational population (Maxwell, Field, & Clifford, 2005).

Conducting a needs analysis is one of the very first steps towards providing information that may help encourage policy changes and improve the practice of designing effective professional development for early childhood teachers. However, teacher perceptions of professional development also serve as an important element in exploring teacher competency.

This quantitative study involves two conceptual frameworks: job-embedded professional development and the Interactive Model of Program Planning. Job-embedded professional development, which supports what has been learned about effective professional development, is learning that is “nestled in the daily arrangements of teaching” (Zepeda, 2015, p. 2). More specifically, Zepeda proposes the following definition for it:

Job-embedded professional development “occurs in the context of the job setting and is related to what people learn and share about their experiences, reflecting on specific work incidents to uncover newer understandings or changes in practices or beliefs. Job-embedded learning occurs through the ongoing discussions where colleagues listen and learn from each other as they share what does and does not work in a particular setting. Job-embedded learning is about sharing best practices discovered while trying out new programs, planning new programs and practices, and implementing revisions based on the lessons learned from practice” (Zepeda, 2015, p. 3).

Job-embedded professional development occurs in the context of the work day, it is coherent and promotes collaboration and reflection, and it supports the transfer of the learning with feedback and continuing support (Creemers, Kyriakides, & Antoniou, 2013). Creemers et al continue by saying that much of professional development is fragmented and does not take teachers' needs into consideration. Principals and school leaders who are charged with developing teachers' abilities through professional development should be aware of not only the needs of teachers but also of the teachers' perceptions of prior learning opportunities. As an assessment, principals need to understand that success is not simply the mastering of new strategies, but it should also be measured in terms of the impact that it has on proposed outcomes (Timperley, 2008, p. 8). Timperley (2008) goes on to say that "teachers who are engaged in cycles of professional learning take greater responsibility for the learning of all students" and in turn, become more effective teachers (p. 9). It is, thus, important that when planning for professional development, that school leaders consider teachers' prior knowledge and skills to promote "deep teacher learning and effective changes in practice" (Timperley, 2008, p. 9). By this means, teacher diversity is respected, and teacher needs can be met.

Caffarella and Daffron's Interactive Model of Program Planning is a comprehensive model which includes five distinct elements: the assessment at entry, assessment of instructional processes and resources, assessment of the learning objectives, assessment to assist learning, and assessment to provide data for the overall educational program (Caffarella & Daffron, 2013, pp. 193-199). This study will focus on the assessment of instructional processes and resources and the assessment to assist learning of early childhood teachers by conducting an evaluation of the perceptions of early childhood teachers. The developers of this model point to it as a guide, not a specific, ordered set of steps to follow, and therefore the program planning can be used at any

point during which program planning and adjusted to fit a variety of programs (Caffarella & Daffron, 2011). Program planning is a “continuous journey consisting of twists and turns, wide expansive views, and an ever-changing landscape, meaning that what has worked today may or may not work tomorrow” (p. 80). This program planning depends upon the needs of the participants, and in order to provide for these needs, a needs assessment must be conducted.

Caffarella (2001) points to the challenge of designing professional development for teachers that not only has an immediate impact, but that is also transferable to the classroom. It is effective, well- planned, and of high quality in the immediate sense, but more importantly, it “provides participants with opportunities to learn in ways that are applicable to their work settings” (p. 1). She goes on to list several key components of effective professional development: It addresses a genuine need and takes place during the teachers’ work time. The learning is of immediate relevance and helps to motivate teachers in seeing this learning as an in-depth continuum of learning, not a “one shot” workshop. There are clear expected outcomes, and teachers are incentivized to embrace the learning. The professional development plan takes into consideration the teachers’ reasons for learning, their needs and experience, and a variety of other factors such as age, expectations, and others (p. 1).

It is imperative that there be an assessment component in order to measure the success of the program. This is done through a series of questions including the following: How does the program plan for transferability of the learning into the workplace? What are the long-term effects of the learning, and how can the learning be delivered so that it is perceived as it is meant to be by the learners? What is the learning context? How can we measure the effectiveness of the professional development? (p. 2). Because there is not one single way to address all learners with the many factors that must be taken into consideration, Caffarella proposes an interactive

process of program planning that will take these various factors into account rather than presenting a “standard package” of professional development to teachers. Planners must consider the varying needs and desired outcomes of the participants (2001, p. 2).

Caffarella (2001) continues with the assertion that planners need to take into consideration teachers’ goals and objectives, their roles, and their personal contexts and concerns (p. 3). In order to do this, conducting a needs assessment and reviewing teachers’ perceptions of and attitudes toward the professional development they have been provided and looking at how effective they perceive this professional development to have been provides insight for planners to use when conducting program planning. She stresses the need for assessment of the professional development. Specifically, what is the long-term effect? She asserts that a well-designed program “has evaluation and needs assessment built into it at every step” (p. 10). There is integration built into the plan, and it is cyclic in nature. The research questions in this study support the Interactive Model of Program Planning by using the extant data to determine the learning needs of a particular subset of teachers, those in early childhood settings in Tennessee. From this information, school leaders can plan for professional development that improves the performance of early childhood teachers.

Nature of the Study

This quantitative study used statistical data from the 2018 Tennessee Educator Survey. This survey is an effort to “deepen state, district, and school policymakers’ understanding of the perspectives held by school-level educators on the issues affecting classrooms and schools” (Tennessee Department of Education, 2018b). There is a section of this study which focuses on Instructional Improvement with eight questions related directly to professional development topics. In addition, there are other questions with a bearing on the design of professional

development interspersed throughout the survey. Many of the questions use a percentage to determine to what extent teachers perceive they need more and higher quality professional development, more professional development, higher quality professional development, or whether they are satisfied with the professional development offerings that they have been provided. These percentages are reviewed for different aspects of professional development.

Definitions

Designing instruction. “Planning the interaction between learners and instructors, or between learners” (Caffarella & Daffron, 2013, p. 181).

Early childhood center. The definition of an early childhood center includes those centers which are nonresidential and can include public schools, private schools, churches, preschools, daycare centers, and nursery schools. For the purpose of this study, the researcher is only considering those early learning centers in a public-school setting (Child Care and Early Education, 2018).

Early childhood education – the ages from birth through 3rd grade (U.S. Department of Education, *Laws and Guidance: Overview*, 2018).

Early childhood teaching and education – a program to prepare teachers to address the needs of children through eight years old (grade 3) depending on individual state regulations (National Center for Educational Statistics, 2010).

Every Student Succeeds Act (ESSA) - This federal law, passed in 2015, reauthorized the Secondary Education Act of 1965. One of the key components of this legislation was to align preschool with early elementary school and build the capacity of teachers and school

leaders to provide the highest-quality learning environment for children (Child Care and Early Education, 2018).

Job-embedded professional development – teaching practice which occurs regularly, is school-based, and consists of analyzing student learning and solving problems of practice using collaboration (Croft, Coggshall, Dolan, & Powers, 2010).

Learning objective. “...also known as performance objectives and learning outcomes, describe what participants will learn as a result of attending an education or training session” (Cafferella & Daffron, 2013, p. 182)

Pre-Kindergarten (PreK) – a program designed to help three- and four-year old children attain school readiness. It is often provided in conjunction with public schools (Child Care and Early Education, 2018).

Professional development - activities designed to increase professional knowledge, skills, and attitudes of classroom teachers so that they might improve the learning outcomes of students (Guskey, 2009, p. 16).

Professional Learning Community - Environment where educators are committed to working collaboratively in an ongoing process of collective inquiry and action research to achieve better results for students (DuFour, DuFour, & Eaker. 2008).

Race to the Top Early Learning Challenge Grant - This federal grant was designed to improve the quality of early learning and to close the gap for young, high-risk children. It awarded funding to specific states to set up or improve early learning and developmental programs (U.S. Department of Education, 2009).

School leaders –these consist of effective leaders within a school setting who are responsible for creating a community of learners which leads to school improvement (The Center for the Future of Teaching and Learning, 2011).

School readiness – a way of describing the skills, knowledge, and attitudes that students need in order to successfully make the transition to the early school years (Child Care and Early Education, 2018).

Teacher Performance – “a teachers demonstrated impact on students’ learning as established through student achievement test scores, observed pedagogical practices, or employer/student surveys” (Cash, 2016).

The American Recovery and Reinvestment Act of 2009 (ARRA) – This legislation provided almost \$100 billion for education to “insure the long-term economic health of our nation” by using these funds to strengthen education and improve academic achievement for students (U.S. Department of Education, *Laws and Guidance: Overview*, 2009).

Young students –children as being those from prekindergarten through second grade (Childcare and Early Education, 2018).

Assumptions

One assumption of the study is that teachers have answered questions honestly and without fear of reprisal. The researcher assumes that because this survey is anonymous, teachers have answered the survey questions reflecting their true perceptions. In addition, the survey assumes an accurate measurement of early childhood teachers’ attitudes or perceptions towards professional development. It is assumed that teachers took time to deeply consider their responses to the survey questions and did not simply check boxes. These assumptions are necessary in order to gain accurate insight into early childhood teachers’ perceptions of the

professional development they have been provided and an assessment of further actions related to ongoing professional learning.

Scope and Delimitations

The specific focus of this study is on early childhood teachers' perceptions of their design of professional development. This focus was chosen because of the current emphasis on early childhood education and the growing number of early childhood classrooms that are being added in schools each year. The teachers included in this study were teachers in the state of Tennessee who teach grades PreK – 2nd grade in three different learning environments: Early Learning Centers, PreK-1st grade buildings, and PreK-2nd grade buildings. The researcher did not include schools which house classrooms ranging from PreK to third grade and above. With an emphasis on early childhood learning and professional development, the researcher chose to limit the emphasis to 2nd grade and below.

Limitations

Limitations of this study include the single year time frame involved in the study. Only the results from the 2018 Tennessee Teacher Educator Survey were used. Additionally, only respondents from Tennessee public schools were used in the study limiting the scope of the research; private schools were not included. The study was limited to the responses obtained from the survey provided to teachers, and not every teacher completed the survey. The researcher only included responses from schools with at least 50% response rate, which means that there were schools for which data was not used in this study. Even though over 40,000 teachers responded to the survey, the researcher only used responses from teachers in pre-K to second grade.

Significance of the Study

Teachers have learning and training needs specific to their field of study (Diaz-Maggioli, 2004), and one of the key responsibilities in the field of early childhood education is to build instructional capacity to prepare students in meeting individual student achievement targets and performance goals. A comprehensive professional development plan that is tailored to addressing the diverse and challenging student needs (Lampert, 2009) as well as builds teacher capacity, ensures that fewer performance improvement plans are needed to address struggling teachers and improves systems and strengthens educational programs. In an effort to improve teacher efficacy and improve professional practice in regards to implementing professional development with fidelity for early childhood teachers, this study is intended to provide principals and other stakeholders with feedback in creating a positive school climate and support a successful community of learners.

While research has been conducted on targeted professional development for early childhood professionals (Snyder, Hemmeter, Meeker, Pasia, & McLaughlin, 2012; Snyder, Hemmeter, & McLaughlin, 2011), there is less research that focuses on the elements of planning context and designing instruction. Both elements are integral parts of the program planning process when preparing a comprehensive job-embedded professional development plan. When specific elements of program planning have not been embedded in the professional development process, there is a strong probability of problems related to the fidelity of implementation.

Summary

Because one of the key indicators for student success is a great teacher (Barnett, 2004; Phillipsen, Burchinal, Howes & Cryer, 1997; Whitebrook, 2003; Barber & Mourshed, 2007), it is vital that school leaders have a clear understanding of what makes for effective professional

development in order to staff their classrooms with these highly qualified teachers. Likewise, a highly qualified teacher has been shown to be one of the key indicators of readiness for students in early childhood classrooms. The purpose of this study was to evaluate teachers' perceptions of job-embedded professional development provided to early childhood teachers. The teachers taking part in this study were housed in three types of educational environments: early childhood centers pre-K to first grade elementary schools, and pre-K to second grade elementary schools – all in the state of Tennessee. As well, the study considered a specific set of demographics as well as explored whether or not these criteria had an impact on how teachers feel about the professional development opportunities they have been afforded.

Professional development that is tailored to student needs (Lampert, 2009) as well as to teacher needs is important to provide the necessary training and skills for their area of expertise. Thus, training provided to early childhood teachers should consist of training and support that is necessary to prepare early childhood students adequately to move to kindergarten and to be successful in the later grades. The research provided by this study is intended to provide school leaders and district administrators with additional input and understanding of the perceptions and needs of early childhood teachers.

Chapter 2: Literature Review

Given the importance of the critical components of early childhood education, it is imperative that teachers of the youngest students get the professional development needed to be effective in these areas and to create and shape positive outcomes for young students. Jones, Farrington, Jagers, Brackett, and Kahn (2018) remind readers that professional development is “an important mechanism by which educators develop the knowledge, skills, and mindsets needed to deliver and sustain high-quality learning experience for all children” (p. 31). The aim

of this research study, therefore, was to use survey responses of early childhood educators to determine perceptions of professional development opportunities and provide a basic needs analysis of change that may result in additional training or other non-instructional methods to close a knowledge and needs gap. Therefore, the purpose of the study was to determine perceived usefulness of professional development for early childhood educators and to satisfy stakeholder's need for data leading to continued practitioner support.

This section encompasses two conceptual frameworks: job-embedded professional development and the Interactive Model of Program Planning. In addition, the researcher provides an overview of various definitions of professional development, a review of the features of effective professional development, professional development in early childhood education, and critical components of early childhood education. Finally, the researcher provides an overview of selective studies on early childhood education and professional development. Taken together, this literature review examines essential elements related to the concept of teacher effectiveness as it relates to best practices and school improvement.

Conceptual Frameworks

Job-Embedded Professional Development. Job-embedded professional development is learning that is “nestled in the daily arrangements of teaching” (Zepeda, 2015, p. 2). More specifically, Zepeda (2015) proposes the following definition:

Job-embedded professional development “occurs in the context of the job setting and is related to what people learn and share about their experiences, reflecting on specific work incidents to uncover newer understandings or changes in practices or beliefs. Job-embedded learning occurs through the ongoing discussions where colleagues listen and learn from each other as they share what does and does not work in a particular setting. Job-embedded learning is about sharing best practices discovered while trying out new

programs, planning new programs and practices, and implementing revisions based on the lessons learned from practice. (p. 3)

This shared knowledge, one of the hallmarks of job-embedded professional development, helps teachers to problem solve and expands their knowledge base all while allowing them time to practice and improve within the environment of their classroom.

Zepeda (2012) reiterates her findings from a 2004 report in which she reports that school leaders should be aware of “four essential conditions to ensure successful implementation of job-embedded learning” (p. 12). These four conditions are as follows:

Learning must adhere to the principles of adult learning, teachers must be able to trust the process by understanding the importance of collaboration, reflection, and feedback, the learning must occur during the regular school day and be ongoing and continuous, and there must be sufficient resources for the learning to be effective, both financial and time-wise. (p. 12-13)

While research into what makes professional development effective is ongoing, much of the current research supports the necessity of these four conditions. In fact, Creemers, Kyriakidis, & Antoniou (2013) report that much of professional development is fragmented and does not take teachers’ needs into consideration. They point out that job-embedded professional development occurs during the workday, it is coherent and promotes collaboration and feedback and reflection, and it supports the transfer of learning with feedback and continuing support. Job-embedded professional development is meant to be learning that is practiced every day, in the actual classroom, and with the support of other colleagues, instructional coaches, and mentors. It can involve peer observations, collaboration, reviewing of student work, coaching, or

any number of activities that allow teachers to implement new learning and perfect it within the environment of their classrooms.

The first component in successful job-embedded professional development, according to Zepeda, is that it adheres to the principles of adult learning. It is flexible and focused, identifies unique professional needs, and is relevant. One of the things that we know about adult learners is that they tend to be self-directed learners. They like to be included in the planning of their learning (Knowles, 1975; Conlan, Grabowski, & Smith, 2003; Trotter, 2006), and they appreciate relevant learning (Tough, 1971). In addition, they prefer to take an active role in choosing what they learn and in being allowed to determine what their own needs are (Killian, 1999; Merriam, 2017). Matherson and Windle (2017) assert that “teachers want a voice in the professional development offered” and that district leaders need to “empower teachers more fully by listening to the needs and desires of their professionals” (p. 31). In addition, Gregson and Sturko (2007) point out that teachers should be allowed to plan their own professional development based upon what they feel they need in order to become a better teacher. Trotter (2006) adds that “teachers should be given latitude to form their own professional development...allowing teachers to determine what direction their professional development will take will greatly increase the success of the teachers in their journey to be lifelong learners” (p. 11). Current researchers in critical theory point out that the people who make these learning decisions and the ability of adult learners to access learning that they feel is necessary or desired greatly impact the learners’ ability for learning (Merriam 2017). Even if there are particular goals for the learning that are decided by someone other than the teachers themselves, there are aspects of the learning that teachers may be allowed to have some control over. Roger Hiemstra calls these “micro components” of self-directed learning. These micro-components will allow

elements of self-direction even when outside forces may be in charge of the overall goal of the learning (Brockett, 2015, p. 52). If adults who plan the learning do not take the learners' needs into consideration, the learning itself has less of a chance of being successful.

Bickmore (n.d.) shares that adult learners bring with them a multitude of experiences upon which to base new learning, and Vandenberg (2007) believes that it is important to find out about the experiences of adult learners and validate these experiences as a means to process new information. Likewise, R. Schultz (2012) feels that the best way for adult learners to be successful is to tap into those experiences, discuss them and integrate them into new content knowledge, and to reflect on these experiences. This idea is shared by Knowles, Holton, & Swanson (1998) when they state that there is a great need for variability in professional development because of "the learner's prior experience and knowledge, the learner's motivation, and the learner's orientation to learning" (p. 15). Brockett (2015) relates that connecting the life experiences, or in this case the teaching experiences, of the learners to the new material help them to see value in the topics covered, and Meissel et al (2016) cited in Badri et al. (2016) relate that "teachers learn best through professional development that addresses their needs" (p. 2). Adult learners need for the material to be meaningful and immediately relevant to what they are currently doing, and Bickmore (n.d.) shares that professional development should be related to topics with great impact on student performance or learning. She continues that if professional development is related to the teacher's subject area, then it has a greater impact on student achievement because it is relevant for what the teacher's specific needs in the classroom may be.

Zemke (1995) asserts that the uniquely adult form of learning requires a problem-centered approach, a needs assessment of the teachers involved in the learning, and the including of these teachers in the goals and development of the learning. Vandenburg (2007) asserts that if

administrators will listen, teachers will often tell them what they need to know. It is vital that these administrators listen in order to create and develop professional learning opportunities that have the highest level of success in order to help the children in their classrooms. Keengwe & Onchari (2009) add that paying attention to the unique needs and contexts of teachers is vital as teachers rarely benefit from professional development that doesn't have an immediate impact on their needs or that doesn't apply to the unique situations that may be taking place in their classrooms.

For those who are charged with planning effective professional development, it is critical that attention is given to the particular stages that teachers are in and to what their individual needs are. First year teachers often do not need the same professional development as veteran teachers. The same could be said for teachers of preschool not needing the exact same content in their professional development as do teachers of middle school history. Ramey et al. (2009) state that ideally the content, method, and amount of professional development should fit and be tailored to meet the needs of individual teachers, and then the professional development can be evaluated and monitored to ensure that it is meeting the goals for teachers and “promoting consistently high-quality programs, supports, and services” for students and teachers (Georgetown University Center, p. 12).

Caldwell (1989) points to context, content, and process as three important components of successful professional development for adult learners. The context should reflect a clear understanding of the adult learner and his or her needs in the classroom. The content should fit the needs of the adult learner, and the process should be one that fits the style of the adult learner. Merriam (2017) adds that professional development for adult learners should be hands-on and should integrate what teachers already know and what they need further training on.

Merriam and Caffarella (1999) share that effective professional development must consider prior knowledge and that the learner must be viewed as a partner. The needs of all partners must be assessed, and the planning should be crafted to address those needs. Roy (2010) continues this idea with the suggestion that professional development should be school-based because each school is unique and has individualized needs. As well, it should be tailored to individual teachers as they have differing levels of experience and knowledge.

The second critical component of effective job-embedded professional development is that teachers must trust in the process of educational improvement. They must understand the benefits of both reflection and collaboration and feedback. Hye-Su & Holst (2018) emphasize the idea of experiential learning, which relies on collaboration and reflection, and they summarize experiential learning in the following way:

What constitutes experiential learning is the relationship between three main components: experience, reflection based on prior knowledge, and learned experience as a result.

Among the three components, reflection serves as the key in the transition to learned experience. (p. 151)

In addition, being allowed time to reflect on the new learning and incorporating it into prior knowledge “gives teachers better skills to better evaluate the effectiveness of their practice” (Badri et al., 2016, p. 3). Ernst, Clark, & Bowers (2016) point to the necessity for providing professional development that is “clear, challenging, connected, and coherent” and that encourages “critical reflection on practice and self-evaluation” (p. 67). Finally, de Vries et al. (2013) argue that the concept of reflection in professional development may be underutilized as a means of creating growth. They point to self-reflection as a powerful tool to supporting teacher growth and improvement.

Hattie, in his 2009 meta-analysis, pointed to collaboration as necessary in any job-embedded professional development. His research stressed the importance of professional development that will “provide opportunities for teachers’ discourse about teaching that results in learning for all students” (DiPaola & Hoy, 2014, p. 159). In fact, DiPaola & Hoy go on to share how The Association for Supervision and Curriculum Development (ASCD) defines effective professional development as a “collaborative endeavor between teachers and administrators who plan and implement school-based as well as job-embedded, differentiated strategies to improve student learning. The process is a long-term commitment in which principals and teachers work collaboratively to achieve school and district goals” (p. 161). Effective dialogue and feedback between colleagues and between teachers and administrators is considered a critical step in developing a community of professional learners because much of our learning occurs during interactions with others (Brown, Collins, & Duguid, 1989).

Hunzicker (2011) encourages active learning in the form of simulations, problem solving exercises, and role playing to engage teachers with each other and with the learning. The opportunity to observe, discuss, and engage allows for experimentation with new instructional tools and methods, and many times these new practices increase teacher self-efficacy and student achievement (Driel & Berry, 2012). Encouraging professional communities is vital for the growth of professional knowledge, and when administrators consider the importance of collegial planning and collaboration, professional development is more successful. These communities of practice help teachers to obtain feedback and support, stay abreast of innovation and current theoretical perspectives, and reflect on their own teaching practices (Lave & Wenger, 1991). Zepeda & Mayers (2013) share that “the opportunity to discuss and reflect about what they do and why” is a vital component of effective professional development (p. 5), and they elaborate

further by saying that “teachers cannot thrive in isolation. Teachers need one another for support, encouragement, and reassurance that the work accomplished in classrooms is worth the effort” (p. 12). Job-embedded professional development is actually elevated when teachers are allowed to learn in the company of others and when teachers feel that they are a part (Abdal-Haqq, 1996; Avalos, 2011).

Lyons and Pinnell (2001) have developed seven principles for effective professional development, and at least three of these deal exclusively with collaboration: Principle one states that active participation should be encouraged, principle two emphasizes organizing discussion around common concerns, and principle five stresses developing learners’ knowledge through conversations around shared experiences. They also stress the importance of a safe, respectful learning environment among peers. Zepeda (2004) notes that even the school culture can be changed by the types of professional development offered to teachers. Professional development that encourages both formal and informal mentoring among faculty as well as ongoing and sustained discussions can lead to a more effective school overall as teachers begin to hone and perfect their craft. When professional development is centered on collaborative problem solving, it is more effective and can produce big changes.

The third key component is that the learning must be embedded in the school day. It must be part of a systematic process in which teachers are continually learning and improving. Hirsh (2009) defines job-embedded professional development as learning that is “grounded in day-to-day teaching practice and is designed to enhance teachers’ content-specific instructional practices with the intent of improving student learning” (p. 76). It must also be sustained over time to allow for new knowledge to be applied regularly (Avalos, 2011), and it must allow for repeated opportunities for practice and interaction to be effective (Darling-Hammond &

Richardson, 2009). Sharon, Ramey et al. (in Sutterby, 2011) point to this “immersion” as being of assistance to teachers as they “incorporate new practices into the daily routine and allow these practices to become more habitual” (p. 17), and this helps to ensure that these new habits are likely to be maintained. Guskey (2002) argues for keeping professional development activities within the school, and Hawley & Valli (1999) agree that it should be school-based and should relate to school improvement (in Sutterby, 2011). Professional development that is job-embedded and school-based is more likely to achieve permanent results and can be one of the most powerful forms of professional development. The ability of teachers to assess and remediate problems that are immediate and relevant can lead to a continuous cycle of school improvement. Joyce and Showers (2003) assert that when modeling takes place in the context of the actual classroom, more of the knowledge gained transfers to actual implementation. They actually report that transference moves from 15% to over 80% when relevant learning takes place in the actual classroom versus off-site (as cited in Sutterby, 2011). Although keeping the professional development in the classrooms is sometimes a challenge for school leaders and administrators, it is important to remember how critical it is that the knowledge or new information be mastered in the actual context of the learning. Zepeda (2013) notes that it is this interaction between teacher and students interacting with one another with supervision, mentoring, or coaching that makes the most difference in the success of the professional development. This type of professional development promotes continual questioning and improvement in the day to day life of a school.

Abdal-Haqq, in the article “Making Time for Professional Development,” points to many of the flaws of traditional professional development. It is often “fragmented, unproductive, inefficient, unrelated to practice, and lacking in intensity and follow up” (p. 2). He continues by

pointing out that there is a vast contrast in the way that many other countries handle professional development. For example, in China, Japan, and Germany, most professional development is integrated into the school day, and many Asian teachers spend up to 40% of their time outside the classroom engaging in professional work which leads to improvement in teaching. American school culture expects teachers to be in the classroom at all times, and much of the decision making about teaching learning is made by “state, district, or building administrators” and not teachers. For professional development to be moved to the next level, it is important the teacher learning and improvement be seen as valuable and important (p. 5). One example of this type of teacher-led, job-embedded professional development is provided by Hawley & Valli (1999) when they explain how a teacher might go about improving her wait time during questioning. The teacher might complete some research, make note of current theories and suggestions, watch other teachers, keep track of data, discuss ideas with peers, practice in her own classroom, and draw some conclusions. This goal of this type of teacher-driven professional learning is to improve something immediately in her classroom. It may be applied in other contexts, but the immediate value is in teacher improvement in one specific classroom. Researchers point to this type of job-embedded professional development as being highly successful in creating positive change because it is focused and relevant, it includes collaboration, and it requires active participation.

Finally, the fourth component is that the professional learning must be supported by sufficient financial resources and enough time to be effective. This support should be consistent, and it should be well coordinated by school leaders or administrators. Sometimes resources are provided, for example for learning coaches and/or instructional coordinators, and then the grant money runs out or budgets are cut, and the support is canceled or reduced (Shulman & Barnett,

2005). There must be realistic expectations related to the expense of the development as well as to the timeline. Many times teachers are simply not afforded enough time or support for actual learning and transfer to occur. New ideas or innovations are frequently introduced before the previous “up and coming” knowledge has had time to be fully digested and applied.

Additionally, teachers are often subjected to lengthy and complicated new technology initiatives while back in the classroom, they are not provided the actual technology to use. Training for a one-to-one classroom when the teachers’ classroom is not set up to be one-to-one is frustrating and wasteful. Even if the teachers do have the technological capability to implement the new learning, showing them in a training and then expecting them to incorporate the new material after one or two lessons is not sufficient. In Sutterby (2011), Yamagata-Lynch (2003) affirms this when she states that “simply presenting the strategy and content and then sending teachers back to their classroom to implement without any follow-up or planning guidance dooms improvement to failure” (p. 162), and Novick (1996) affirms that professional development will remain ineffective unless teachers are given enough time for activities such as sufficient time for observation, reflection, and dialogue. In order for teachers to plan and work collaboratively, time must be provided. In addition, if teacher reflection is to be encouraged, there must be time allowed for that as well.

As well as time, financial support should be provided so that teachers have access to mentors, coaches, or other professionals, who can model, observe, provide feedback, and assess problems or difficulties. Zepeda (1999) asserts that “providing release time for teachers’ professional development requires creative use of human resources. In addition, outside facilitators are sometimes needed to assist teachers in learning new skills. Funding must be made available to meet these costs” (as cited in Sutterby, 2011, p. 137). Hawley & Valli (1999)

share that when teachers are provided enough time, support, and space to learn new things, there is great benefit. School leaders can assist teachers by limiting the amount of required paperwork, reducing non-academic responsibilities of teachers, and coordinating the schedules of teachers so that collaboration can take place easily. Once goals have been clearly identified and understood, it is critical that teachers be provided the time and support needed to achieve greater levels of success through job-embedded professional development.

Principals and school leaders who are charged with developing teachers' abilities through professional development should be aware of not only the needs of teachers but also of the teachers' perceptions of prior learning opportunities. DiPaola & Hoy (2014) argue that professional development should "foster professional interactions among colleagues" and should "deliver job-embedded staff development" as a means of school improvement (p. 173). Ernst, Clark, & Bowers (2016) point out that professional development opportunities should be "focused on content that integrates directly into classrooms and builds a community of learners" (p. 66). To this end, Zepeda (2004) shares that professional learning should be based on the needs of teachers at individual schools and in individual classrooms and that "there is value in embedding staff development within collegial and collaborative planning" (p. 20). Zepeda (2004) goes on to say that perceptual data, as in an assessment of teachers' prior learning and individual needs being met via professional development, can be used to gain a big picture of what has been done for school improvement and what teacher needs are being met and what needs still remain. She suggests that conducting such an assessment would answer questions such as how pleased teachers are by the opportunities provided, how well teachers' instructional improvement needs are being met, and how effective teachers feel their staff development offerings have been. As an assessment, principals need to understand that success is not simply

the mastering of new strategies, but it should also be measured in terms of the impact that it has on proposed outcomes (Timperley, 2008, p. 8). Timperley (2008) continues by declaring that “teachers who are engaged in cycles of effective professional learning take greater responsibility for the learning of all students; as they take more responsibility, and as they discover that their new professional knowledge and practice are having a positive impact on students, they begin to feel more effective as teachers” (p. 9). It is, thus, important that when planning for professional development, school leaders consider teachers’ prior knowledge and skills to promote “deep teacher learning and effective changes in practice” (Timperley, 2008, p. 9). By this means, teacher diversity is respected, and teacher needs can be met. In addition, school leaders must commit to providing what teachers need – time, support, a supportive learning environment - to take part in such job-embedded professional development. Otherwise, it is not successful nor effective (Hawley & Valli, 1999).

Interactive Model of Program Planning. Caffarella and Daffron’s Interactive Model of Program Planning is a comprehensive model which provides, among other things, assessment to assist learning and assessment to provide data for the overall educational program (Caffarella & Daffron, 2013, pp. 193-199). The developers of this model point to it as a guide, not a specific, ordered set of steps to follow, and therefore the program planning can be used at any point during program planning and adjusted to fit a variety of needs (Caffarella & Daffron, 2011). Just as there is not one theory to describe all the aspects of the way that adults learn, Caffarella and Daffron (2011) feel strongly that there is not necessarily one single method of planning programs for adults. This program planning depends upon the needs of the participants, and in order to provide for these needs, school leaders must conduct needs assessments.

Caffarella (1998) began designing the Interactive Model of Program Planning with four assumptions in mind: educational programs should center on what the participants learn and how this learning results in change; to develop any type of educational programming assumes an understanding of the complexity of the process, and therefore, flexibility is necessary; program planners may use all or only particular aspects of the interactive model of program planning; program planning for adults must include a reason or justification for the learning and not just a set of instructions or lessons. She later added three more assumptions which include requirements for addressing the varying needs of the participants, recognizing culture and diversity, and the fact that the planners are learners themselves and therefore must learn from each planning experience (Merriam & Caffarella, 1999).

Because her first assumption addresses learning and change, and because there is a focus on the specific needs of various learners in following assumptions, Caffarella addresses the type of professional development that best meets the needs of teachers. She emphasizes that it should be job-embedded and relevant. It should be ongoing, and it should consider context to address the gaps that exist for the learners. Caffarella (2001) points to the challenge of designing professional development for teachers that not only has an immediate impact, but that is also transferable to the classroom. It is effective, well-planned, and of high quality in the immediate sense, but more importantly, it “provides participants with opportunities to learn in ways that are applicable to their work settings” (p. 1). She goes on to list several key components of effective professional development: It addresses a genuine need and takes place during the teachers’ work time. The learning is of immediate relevance and helps to motivate teachers in seeing this learning as an in-depth continuum of learning, not a “one shot” workshop. There are clear expected outcomes, and teachers are incentivized to embrace the learning. The professional

development plan takes into consideration the teachers' reasons for learning, their needs and experience, and a variety of other factors such as age, expectations, and others (p. 1). In addition, effective school leaders continually assess the needs of the learners, and there is an ongoing evaluation process in place, which may include anonymous feedback and other methods to ascertain whether or not the learning opportunities are proceeding successfully (Zepeda, 2004).

Because additional assumptions address flexibility, adaptation, and last minute changes, Caffarella (2001) insists on an ongoing plan for evaluation. She agrees that it is imperative that there be an assessment component in order to measure the success of the program. The program itself should address a gap in knowledge. This gap exists between what IS being done and what SHOULD BE being done. The most important outcome of a needs assessment is a commitment to making sure that the needs of the participants are being met through the program planning process, which is done through a series of questions, and planners need to take into consideration teachers' goals and objectives, their roles, and their personal contexts and concerns (p. 2-3). In order to do this, conducting a needs assessment and reviewing teachers' perceptions of and attitudes toward the professional development they have been provided is beneficial for planners. Considering how effective they perceive their professional development to have been provides insight for planners to use when conducting program planning. Those who review the needs assessment must be willing to listen to the responses of the participants and use the information gained to plan for future, more targeted, opportunities for teacher learning based upon their needs and perceptions. The value and worth of any type of professional development can be measured by assessing teacher perceptions of how well it met their needs. Was it worthwhile? Did it meet their objectives or fulfill their needs? The purpose of such an assessment is to assist school

leaders in designing future professional development opportunities for teachers, and as Caffarella points out, evaluation and assessment is one of the key aspects of the program planning process.

Continuing her explanation, Caffarella stresses the need for assessment of the professional development, looking specifically at what the long-term effects might be. She asserts that a well-designed program “has evaluation and needs assessment built into it at every step” (2001, p. 10). The model is cyclical in nature allowing for consistent evaluation and revision. In this way the intervention is ongoing and continuous, allows for negotiation of needs, and can be used in a variety of situations (Merriam, Caffarella, & Baumgartner, 2007).

In addition to the assumptions that Caffarella outlines as critical to this process, she also has organized the process into twelve components. The first of these components is to determine the context. It is important to have a clear understanding of the situation including details such as what kind of participants will be taking part, what needs to be accomplished, who the major stakeholders are and what they expect. Merriam, Caffarella, & Baumgartner (2007) believe that determining the perceived needs of teachers for professional development is the first step toward effective professional development. The second step is meant to ensure buy-in from the participants. The planners must determine what negotiations should be considered in order to build support for the learning. The third component is to identify what learning needs to take place, and this can be done via surveys, questionnaires, small group discussions, and other methods that ask participants and/or stakeholders what gap exists. Determining the specific needs of the teachers, through a thorough and detailed evaluation of their preferences and perceptions, is paramount (Caffarella & Daffron, 2013).

From this point forward, plans will be made with the understanding that they may change and that continuous evaluation must take place along the way. Component four addresses the need to

prioritize the needs. Planners must consider what is most important and what is actually doable. After determining this, component five addresses the need to use this information to develop learning objectives for the process. It is imperative that planners assess the needs and the context in order to create clear, specific learning goals and objectives (Merriam, Caffarella, & Baumgartner, 2007). Component six and seven address the need to use these objectives to create clearly defined plans for the learning. The planners must consider what activities, materials, and techniques will be used to achieve the learning objectives. Planners must also have a clear understanding of the organization, the participants, and the stakeholders in order to plan for a transfer of the learning. What techniques would work best in this particular situation?

Component eight refers to the ongoing evaluation process. There should be plans in place for program planners to evaluate the needs and to make changes as necessary to ensure that the learning will be meeting the needs of the participants. Planners can follow up with the organization and ask any clarifying questions before finalizing plans. There must be an initial plan, but continuous evaluation must be undertaken to see where participants stand. Listening and sharing is vital throughout the process. Component nine addresses the need to share the results of any evaluation thus far with the participants. There must be ongoing communication between planners and learners to ensure that the program will proceed as designed and that relevant learning will take place. This is the part in which opportunities to collect data throughout the process may lead to revisions and/or eliminations. It is important for planners to keep an open mind and to realize that everybody does things differently. Being open to change is a key aspect of the interactive planning process.

Finally, components ten through twelve address the final details of the learning plan. Staffing is chosen, budgets are developed, and facilities are readied for the instruction.

Contingency plans are put into place, marketing material is designed, and additional details are ironed out. For example, what kind of parking is needed? Will participants need to be fed, and who will provide the food? What kind of printed material will need to be distributed, and how many copies will be required? (Merriam, Caffarella, and Baumgartner, 2007).

The research questions in this study support the Interactive Model of Program Planning by providing an opportunity for evaluation in the area of early childhood professional development. In addition, the study focuses on the features of effective job-embedded professional development by using the extant data to determine the learning needs of a particular subset of teachers, those in early childhood settings in Tennessee. It was the goal of this researcher that school leaders can glean valuable information from this study that they can use to plan for professional development that improves the performance of early childhood teachers.

Review of the Literature

School leaders have several components to take into consideration when planning for effective professional development for teachers. They should be familiar with what constitutes effective professional development in general, and if they are specifically planning for early childhood teachers, there are even more specific considerations. Professional development should be job-embedded, and there should be a process planning and assessment program in place, as encouraged by Caffarella and Daffron. As well, school leaders should be very familiar with the way that adults learn because there are unique needs specific to the adult learner. In fact, this attention to the specific needs of the adult learner is the first assumption that Zepeda names in her discussion of job-embedded professional development. As Merriam (2017) points out, “the more we know about how adults learn, the better we can design learning activities that facilitate learning” (p. 35). Furthermore, Jones, Farrington, Jagers, Brackett, and Kahn (2018)

share that “attending to the professional capacity and well-being of educators is critical to a next-generation research” (p. 30).

Professional Development

There have been many definitions provided for professional development, and these definitions are frequently updated as new information is obtained. Jago (1982) referred to professional development as a never-ending process of self-study, experience, and training. In 1985, Gall, Renchler, et al defined professional development as “efforts to improve teachers’ capacity to function as effective professionals by having them learn new knowledge, attitudes and skills” (p. 65). In 1995, Fullan defined professional development as “the sum total of formal and informal learning pursued and experienced by the teacher in a compelling learning environment under conditions of complexity and dynamic change” (p. 265). Day proposed the following definition in 1999: Professional development consists of the “conscious and planned activities which are intended to be of direct or indirect benefit to the individual. It is a process in which teachers “acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues throughout each phase of their teaching lives” (p. 27). Danielson (1996) indicates that “continuing development is the mark of a true professional, an ongoing effort that is never completed” (p. 115), and Guskey (2000) adds that professional development opportunities are “those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students” (p. 16).

Neuman and Cunningham (2009) point out that while most agree that teacher quality is of utmost importance, the manner in which we prepare these qualified teachers “is far less clear” (p. 533) and that “policy makers and researchers still have limited knowledge about professional

development programs and their potential impact on instructional practices” (p. 534). Sheridan, Edwards et al. (2009) add that we need “empirical efforts to examine what works for whom, within which contexts, and at what cost” (para. 15).

According to Hirsch (2009), Learning Forward (formerly the National Staff Development Council) released its standards for professional development in 2001. According to these original standards, professional development should be meaningful, should incorporate a comprehensive plan, should determine learning goals, and should provide access to support. Increasingly, however, professional development is more often being viewed as an ongoing process, as opposed to a one-time event, in which teachers are continually learning and improving, which can be seen in more current definitions of professional development. This updating of the definition of professional development is reflected in the revision that Learning Forward made to its own definition in 2009, and this revision also underscores what Zepeda says about the importance of professional development taking place within the context of the workday.

Professional development should be known as “a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (Hirsch, 2009, p. 12). In addition, quality professional development should build relationships among teachers and staff. Darling-Hammond and Richardson (2009) added that high-quality professional development centers on student learning. It focuses on active teaching, assessment, observation – not vague discussions or ideas in the abstract. At about this same time, the National Professional Development Center on Inclusion (NPDCI) asserted that professional development should focus on building the climate for growth in knowledge, skills, and dispositions as well as being able to apply this knowledge in practice (Buysse, Rous, & Winton,

2008). As well, the National Association for the Education of Young Children (NAEYC) iterated that professional development should be a continuum of learning designed to provide teachers with necessary skills and knowledge (National Association of the Education of Young Children, 1993). Barber & Moushed (2007) add that effective professional development comes about when teachers become aware of their own weaknesses, are exposed to best practices, and are motivated to do the hard work to make these changes.

Darling-Hammond, Hyler, & Gardner (2017) summarized much of the current research related to what makes for effective professional development in their policy brief for the Learning Policy Institute. The authors of this brief defined professional development as “structured professional learning that results in changes in teacher practices and improvements in student learning outcomes” (p. v.). They further clarified the definition by listing the features of effective professional development. In the opinion of Darling-Hammond and others, effective professional development is content focused, incorporates active learning, supports collaboration, uses models of effective practice, provides coaching and support, offers feedback and reflection, and is of sustained duration (p. v.-vi.). These authors agree with Zepeda, as well as Caffarella and Daffron, that effective professional development must contain the critical components of collaboration, feedback, and time for reflection. Professional development that contains these features will assist teachers with curricular content that matches their individual classroom needs and will “engage teachers directly in designing and trying out teaching strategies” (p. vi.). It creates a place where teachers can work together to share ideas and create communities of practice either by grade level or content focus. It provides models of instruction that teachers can use to improve their own practice, and it allows for a network of support when teachers are learning new skills and information. There is time provided for teachers to practice

and to reflect on their craft based on their own individual needs, and there are adequate resources necessary for new learning to take place. In order to apply these features of professional development to teachers in early childhood classrooms, it is important to first consider what specific knowledge and skills early childhood teachers need.

Features of Effective Professional Development

Research has shown that, in general, effective professional development contains the following features. First, it is sustained and ongoing. Martin, Kragler, Quatroche & Bauserman (2014) point out that it “should be a long-term professional commitment, not a short-term training fix” (p. xv). Rather than providing for single, fragmented workshops and one-time training sessions, professional development should be more about promoting the ongoing professional growth of teachers and creating a culture in which this type of professional growth thrives (Sheridan, Edwards, et al., 2009). As well, as pointed out by Barber & Moushed (2007), it should take place in the teachers’ classroom environments rather than lecture halls or conference rooms. In other words, it should be job-embedded. The authors go on to assert that professional development in other professions occurs where the action takes place, but many times for educational professional development, a brief one-time lecture or workshop often occurs anywhere but the place where teachers do their actual work.

Secondly, it should be linked to data, goals, and theory. Guskey (2010) points out that any effective professional development must have intended goals that are visible and clearly understood by the participants. Furthermore, there should be an understanding of the potential to meet the goals and a plan for assessing the completion of the goals. In other words, effective professional development must take place for a reason, and that reason should be clear to all who take part in the training. Professional development should be meaningful, and it should relate

specifically to the goals to be achieved as well as to data that supports the instruction. Student achievement data should be included in the planning of the professional development (Zepeda, 2012). Research supports the idea that “even expert level knowledge will be insufficient unless caregivers understand how they might apply the learning to practice” (Neuman & Cunningham, 2009, p. 538).

Thirdly, effective professional development allows for follow up guidance, and it contains administrative support for the implementation of new skills and techniques (Buysse, Castro, & Peisner-Feinberg, 2010; Powell & Diamond, 2011; Wayne, Yoon, Zhu, Cronen, & Garet, 2008; Wasik & Bond, 2001; Taylor, Pearson, Peterson, & Rodriguez, 2004; Cohen & Hill, 2001; Neuman & Cunningham, 2009; Dickinson & Caswell, 2007; Zepeda, 2012). Professional development should be a systematic plan that creates strong relationships between teachers and administrators as they work together on the implementation of new material (Taylor et al., 2004; Sheridan, Edwards et al., 2009), and some form of specific coaching is helpful for successful implementation (Shanklin, 2006; Koh & Neuman, 2006; Joyce & Showers, 2002). Joyce & Showers (2002) contend that new skills and techniques may be difficult to master at first and that allowing practice and providing feedback and mentoring will assist in building these relationships and helping teachers adapt these new skills into the classroom. Again, this points to the importance of job-embedded professional development.

Next, effective professional development should be focused on teaching content, should be relevant to teachers’ classroom needs, and should be an active process in which teachers take part in the learning (Zepeda, 2012; Martin, Kragler, Quatroche, & Bauserman, 2014). In order for professional development to be effective, “the participants need to be engaged with and active participants in the intervention” (Diamond & Powell, 2011, p. 76). This training should

focus on specific skills that can be linked to improvements in the classroom, and in order to practice the implementation of such skills, the professional development should be interactive and hands on (Winton, McCollum, & Catlett, 2008; Zepeda, 2012). It should allow for practice (Snyder et al., 2012), and it should facilitate active learning (Diamond & Powell, 2011). All of this points to the need to embed the professional development within the classroom setting and to provide for ongoing support.

For professional development to be effective, it should allow time for reflection in order to build teacher self-efficacy (Taylor, et al, 2004; National Association for the Education of Young Children, 1993; Zepeda, 2012; Martin, Kragler, Quatroche, & Bauserman, 2014). One of the key components of effective professional development, according to Guskey (2010), is that teachers have an opportunity to consider what they learned. In order for the new information to make a difference in their professional practice, they must have time to reflect on this information and consider the means by which it can be applied in the classroom. In fact, Guskey (2000) lists reflection as one of the key questions when evaluating professional development: "Was there an opportunity for reflection on what they learned?" Sheridan, Edwards et al. (2009) add that self-reflection plays a key role in assisting professionals to achieve new levels of understanding when provided with new techniques or skills to master. Drago-Severson (2009) says that "reflective practice is thought to improve teaching, build leadership, and enhance student achievement" (p. 154), and she points to the concept of collegial inquiry which can help clarify thinking, help adults understand our own behavior and that of others, and which leads to growth and increased student learning. Barber & Moushed (2007) believe that meaningful professional development only occurs when teachers have time to reflect and determine their own weaknesses and needs.

Successful professional development enlarges communities of practice within schools and invites teachers to have a role in the planning (Fuchs & Fuchs, 2001; Lave & Wenger, 1991; Green, 2013). If Whitehurst (2003) is correct when he states that in-service training should be more focused on the content that teachers will be delivering, then it stands to reason that those very teachers should have input into what the content of their professional development experiences will be. Green (2013) stresses that “teachers must become directly involved in making decisions” especially when it relates to student assessment and curriculum (p. 59). He goes on to explain that leadership standards express the need for a “shared vision and mission” and the promotion of organizational learning within the school (p. 158). Teachers should be involved in the planning and design of professional development, and teachers should be included as collaborators in the design and development process (Diamond & Powell, 2011). Further, Green (2010) points out that school leaders have a better chance of meeting challenges if there is a “built-in culture of collaboration” (p. 156). Green further adds that professional learning communities have other benefits including building a climate of trust, building a climate in which teachers feel more empowered and self-directive, allowing for teacher flexibility and experimentation, and providing opportunities for teachers to “focus on renewing their skills, enhancing their content knowledge, and expanding their areas of expertise” (p. 157). Martin et al. (2014) share that one key aspect of the success of professional development is “social capital – the capital of trust, collaboration, and collective responsibility that a community is able to create and circulate together” (p. xiv). Drago-Severson adds that one of the key components of effective professional development for adults is the ability to engage in “meaningful dialogue about their work and its inherent challenges” (p. 15). She promotes teaming as a way to assist adult learning because it “creates opportunities for group and individual reflection, reduces

isolation, engenders innovations” and allows teachers to “share expertise and support each other’s learning” (p. 73). In addition, it “provides opportunities for individuals to articulate their thinking and develop a greater awareness of their own and other people’s thinking” (p. 86). Furthermore, Jones, Farrington, Jagers, Brackett, and Kahn (2018) express that these “interactions, relationships, and essential practices” of working together with colleagues are the very intangible components that make the structure and process of professional development effective (p. 8). In fact, these researchers believe that it is this collegial inquiry and learning that forms the basis of professional learning (p. 9). Barber & Mourshed (2007) point out that much of teaching is done alone but that one of the best ways to ways for teachers to improve is to “enable them to learn from one another” (p. 31).

Finally, in addition to the relevance of the material, the new knowledge must be considered “doable” (Dickinson, Watson, & Farran, 2008). Sheridan & Edwards (2009) assert that it is not enough to share new information with teachers. It is also vital that information be provided to help them transfer the understanding into classroom practice. Again, there is a need for job-embedded training so that teachers can practice implementation in the classroom. Guskey (2000) would also ask if the resources were provided for the professional development material to be implemented and were the teachers provided the necessary support to effectively apply the new skills. If teachers are to implement new information into their classrooms, they must also be given the necessary resources and materials, be trained in how to apply the information, and be given the support that they need in order to feel successful in doing so. Professional development should build teachers’ confidence levels, not require them to implement new material that they feel is not possible to accomplish (Snyder et al., 2012).

Ferguson (2006) adds that the goals must be feasible and important for the professional development to be effective.

Taken all together, this is not an easy process. When considering the specific needs of the early childhood educator, it can even be more complicated. Jones, Farrington, Jagers, Brackett, and Kahn (2018), for example, share that while professional development is offered to teachers of young children, it is often “uneven in focus, quality, effectiveness, and availability” across schools and districts and that many of these programs do not offer any, or enough, information on important topics like development or diversity (p. 31). As Barbour & Moushed (2007) assert that “the only way to improve outcomes is to improve instruction” (p. 13), there is a great need for research to be completed which will address this complex undertaking so that schools can provide the most qualified teachers to work with our very youngest student population. In order to structure effective professional development opportunities for early childhood teachers, more research needs to be completed with these questions in mind. To apply these features of professional development to teachers in early childhood classrooms, it is important to first consider what specific knowledge and skills early childhood teachers need. Following that, administrators can consider the most effective way to conduct this training, increase teacher engagement, and raise level of teaching proficiency.

Early Childhood Professional Development. In designing professional development opportunities for teachers in early learning centers, it is critical to consider what preschool teachers need in order to be effective in the classroom. Professional development should be tailored to the needs and the context of each school as each may have unique needs. Pacchiano, Klein, & Hawley (2016) call for an abandoning of traditional professional development for early childhood teachers – trainings and workshops that are conducted off-site and are only directed at

providing knowledge. Instead, they call for job-embedded, collaborative professional development that “builds professional capacity across the entire organization” (p. 2). They go on to say that “the way teachers work together to develop and continuously improve curriculum and instruction, emotionally supportive learning environments, and engagement of families is far more important and predictive of achievement than any individual teacher or school quality characteristic” (p. 2).

Professional development should be interpreted as a lifelong journey intended to raise the level of student achievement and to prepare our youngest students for success in kindergarten and beyond. NAEYC views professional development as a continuum of learning intended to provide teachers with the necessary skills and knowledge, to provide ongoing and continual experiences to enhance the work of these early childhood professionals (National Association for the Education of Young children, 1993). In the article “What Do We Mean by Professional Development in the Early Childhood Field” Buysse, Rous, and Winton (2008) assert that professional development should “help both providers and learners understand new approaches to teaching and learning, what a practice looks like in applied settings, the purpose of a particular practice, which program guidelines and standards relate to the practice, and what evidence exists to show that it is effective” (p. 4). As early childhood education has gone through many recent changes, Martin et al. (2014) express the importance of providing professional development that “is responsive to new expectations and needs” of these early childhood educators (p. 174). In addition, the authors point out that “intentional, appropriate instruction” helps to establish a “foundation on which future learning can be built” (p. 185).

Critical components of early childhood education

In light of the current focus on quality early educational programming for children, it is important to consider what components make up an effective education for young children. In today's climate, in which there is a focus on teacher accountability for positive outcomes and at the same time a limited amount of time and funding for teacher training and support, it is critical to provide professional development to early childhood teachers that address these components (Sheridan, Edwards, Martin, & Knoche, 2009). The authors further point out that while much is known about professional development itself, there are still gaps in the research that approach the study of it from the perspective of the practitioner. Do teachers feel that they are getting what they need, as often as they need, in the areas they need in order to be effective? Do teachers feel that they are encouraged to collaborate enough, reflect enough, and have access to meaningful feedback? Do teachers perceive that the training they are provided is aimed at the topics that they feel they lack confidence in? It is the purpose of this study to review the perceptions of these early childhood teachers in relation to the professional development they have been afforded with relation to the critical components of education for young children.

Relationships. Most researchers and administrators agree that educators who work with an early childhood population need to have not only knowledge related to academics, but they also need to understand the importance of relationships to the learning success of young children (Rimm-Kaufman & Pianta, 2001; National Association for the Education of Young Children, 1993; Dickinson & Caswell, 2007; National Professional Development Center on Inclusion, 2008). Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, & Howes (2008) points to the interactions between the child and the teacher as one of the best predictors of children reaching developmental milestones. In fact, as Shonkoff and Phillips (2000) point out, "human

relationships and the effects of relationships on relationships, are the building blocks of healthy development” (p. 4), and there is a major shift between the ages of three and seven in the way that children process these social relationships. They continue by pointing out that “cognitive or intellectual learning develops best if a positive emotional bond has been established with at least one important adult” (p. 4). That one important adult may very well be a teacher.

Furthermore, Shonkoff & Phillips point out that it is not the newest in technologies nor a particularly rigorous curriculum that provides the most advancement in learning for this age population. Instead, it “is how the adult interacts with young children and set up relatively ordinary environments to support and foster early learning” that makes more of a difference (p. 155). It is the difference between strictly teaching the alphabet versus reading highly engaging literature to them frequently while enjoying a relationship that is based on trust. Stipek, Feller, Daniels, & Millburn (1995) report that young children in a mainly didactic form of classroom environment which is focused on right answers and heavy instruction have negative outcomes compared to those children in a content-rich environment in which the focus is more heavily based on positive relationships. Students have higher motivation and less anxiety when their relationships with teachers are higher on warmth and lower on control. Shonkoff & Phillips (2000) point to research that stresses the fact that positive relationships with caregivers other than parents have many benefits for young children (p. 235-6). Relationships with peers are also important, and the positive effects from these supportive relationships provide motivation for learning. Early childhood teachers should take care to “foster caring, emotionally responsive interactions among all children” (p. 180). Early, nurturing relationships are critical, and professional development for these early learning teachers should address ways to increase these relationships in order to raise the level of student achievement in the early grades.

Child Development and Behavior. In addition to focusing on relationship development, early childhood educators need a firm grasp of what constitutes appropriate child development for the level with which they are working, and they must be able to assess and raise the level of readiness for the children to move on to the upper grades (Dickinson & Brady, 2006; Neuman, Copple, & Bredekamp, 2000). Early childhood educators must understand the importance of classroom environment, and they must have strong classroom management skills and an understanding of student behavior. Appropriate classroom strategies for the early childhood population should be incorporated into professional development. This professional development can assist teachers in adopting more effective strategies for managing behavior in the classroom (Dickinson & Caswell, 2007). As well, professional development can provide early childhood teachers with ways to intervene which are related to not only academics but to behaviors as well (National Professional Development Center on Inclusion, 2008).

Jones, Farrington, Jagers, Brackett, and Kahn (2018) assert that there are “certain basic social, emotional, and cognitive competencies” that must be mastered before other learning can take place (p. 18). People are not born with the social and emotional to be successful in life, and this development grows and develops over time with unique needs for each stage of life. It is critical that teachers of young children are knowledgeable in what needs occur in the early years of education. For example, it is at this age in which children “need support to identify and manage their emotions and to focus their attention” (The Aspen Institute: National Commission on Social, Emotional, and Academic Development, 2018, p. 18). Without social and emotional support, learning opportunities are diminished for young children, and teachers of young students must have training to provide this support.

Readiness for Kindergarten. Pianta and Le Paro (2003) point out that readiness is vital, and that teachers need to be familiar with what constitutes kindergarten readiness both academically as well as behaviorally. Stoltz, Wilson, & Czarnecki (2012) assert that “children who are ready to succeed when they enter kindergarten make and sustain good grades throughout their school career; are 50 percent less likely to be involved in crime; and are more likely to graduate from high school, get a job, make more money, and get married and start a family” (21). Isaacs (2007) adds that the positive effects of a quality preschool program reduces later criminal activity and raises opportunities for later employment. She continues by saying that quality early childhood programs also equality of opportunity by “narrowing the differences in skills among children of different family backgrounds as they enter school” (p. 5).

Because early childhood teachers are often responsible for developing this readiness, it is vital that they have an understanding of what constitutes kindergarten readiness. As the definition for the term “readiness” can vary from person to person, it is important to consider the many aspects of readiness that researchers have determined to be contributing factors. Because each child is unique, and development is not evenly distributed in a predictable pattern, this is not an easy determination (“Effects of preschool,” 2008). Still, researchers and educators have identified several aspects of readiness that teachers can look to when considering kindergarten readiness. Ackerman & Barnett (2005) point to a child’s ability to communicate and pay attention, the ability to be sensitive to the feelings of others, and the ability to share and take turns as being part of what constitutes readiness for kindergarten. They further add that the ability to identify at least four colors, major body parts, and to be able to respond to both their name as well as to warning words are also factors (p. 6-7). While certain academic skills, like being able to hold a pencil, count to ten, and name colors and shapes are considered important

for kindergarten readiness, many teachers hold social and emotional readiness in higher regard. They cite things like not being disruptive, knowing how to share, being able to follow directions, and communicate thoughts and needs as far more important (Ackerman & Barnett, 2005). Morrissey & Vinopal (2018) add that there are seven social and emotional behaviors that constitute kindergarten readiness: self-control, inhibitory control, attentional focusing, approaches to learning, externalizing and internalizing problems, and interpersonal skills (p. 760). Readiness encompasses cognitive areas such as language and numeracy, but perhaps more importantly, it relates to physical, developmental, behavioral, and emotional markers (Keys, Farkas, Burchinal, Duncan, Vandell, Weilin, & Howes, 2013). Keys et al. go on to share the importance of a quality early childhood experience in order to develop these kindergarten readiness skills. They point to studies which show the lasting impact of an early childhood program on brain development as well as academic and social development (p. 1172).

As early childhood teachers are charged with assisting children to become ready for kindergarten, it is also important for them to be trained in the area of what barriers to readiness some of these children face. In addition to knowing what constitutes readiness, these teachers need to be aware of how to create such readiness understanding that many factors outside of their control have had an impact on the child's ability to be ready for kindergarten. The child's poverty level, the level of education of the parents, and the child's living environment can all have an effect on the child's readiness level (Ackerman & Barnett, 2005). Children in rural areas without access to libraries and with limited employment opportunities for their parents can also reduce readiness. Ackerman & Barnett (2005) assert that the most "promising strategy" for early is to provide "access to high-quality center-based early childhood" opportunities for these children (p. 12). They further elaborate that in a 2002 Maryland survey, only 52% of children

were actually ready to begin kindergarten, and Shonkoff & Phillips (2000) add that these differences are “predictive of subsequent academic performance” (p. 5). This points to the need for early childhood programs and for these early childhood educators to be educated on methods to increase readiness in these children. A high-quality preschool program can make a big difference, especially with disadvantaged children (Morrissey & Vinopal, 2018). Addressing these disparities is critical “both for the children whose life opportunities are at stake and for a society whose goals demand that children be prepared to begin school, achieve academic success, and ultimately sustain economic independence and engage constructively with others as adult citizens” (Shonkoff & Phillips, 2000, p.5). Identifying and intervening with these children who display a lack of readiness is an important aspect of being an effective early childhood teacher. The authors continue to stress the importance of intervening in the earliest classrooms by stating that “model early childhood programs that deliver carefully designed interventions with well-defined objectives and that include well-designed evaluations have been shown to influence the developmental trajectories of children whose life course is threatened by socioeconomic disadvantage, family disruption, and diagnosed disabilities” (p. 398).

President Bush’s “Good Start, Grow Smart” (Good Start, Grow Smart, 2002) initiative stressed that a child who enters school without these readiness skills “run a significant risk of starting behind and staying behind.” Neuman & Cunningham (2009) assert that teacher quality is a “strong predictor of children’s readiness skills” (p. 533) and that professional development focused on developing quality teachers, especially those who can identify and remediate those who enter with delayed readiness, is critical. One of the key variables in leading to high quality teachers in these early childhood settings is education and professional development. The importance of preschool quality in supporting children’s readiness is illustrated in many studies.

“For example, the large-scale Cost, Quality & Child Outcomes Study found that attending higher quality programs was correlated with better language scores and math skills for children from diverse backgrounds. In some cases, the effects of higher quality programs were even stronger for children considered to be at risk” (Ackerman & Barnett, 2005, p. 104).

Content: Knowledge and Skills. Knowledge and skills are critical for teachers to be highly qualified for the early childhood classroom. President Bush’s Good Start, Grow Smart initiative (2002) stressed the need to “close the gap between the best research and current practices in early childhood education” with an emphasis on “pre-reading, language, vocabulary, and numeracy.” While much of early childhood education focuses on behavior, social and emotional learning, and developmental milestones, there are critical academic skills that these children need in order to have readiness for kindergarten. Early childhood teachers must possess a strong content knowledge, be able to differentiate for students who may be in different stages of learning and must be able to help these young students develop higher order thinking skills (Martin et al., 2014). The authors further express the need for specific literacy coaching as well as for embedded professional development for these teachers in the area of reading, phonemic awareness, writing, alphabet knowledge, and guided conversation.

Early childhood educators must have a clear understanding of early language acquisition. The National Child Care Information and Technical Assistance Center (2017) reports that there are core concepts that adults who work with early childhood populations need to know and understand in order to facilitate the learning of the children that they are charged with teaching. “Effective teachers of early literacy must bring a substantial knowledge base, reflecting an understanding of child development, and the knowledge, skills, and dispositions necessary to shape appropriate learning experiences that are engaging to the children” (Neuman &

Cunningham, 2009, p. 533). Neuman & Cunningham (2009) point to targeted professional development for early childhood teachers as a reason for gains in “children’s language and early literacy skills “(p. 537). Landry et al. (2006) in Martin et al. (2014) point out that the type of professional development provided to these early childhood teachers is important and makes a difference. Professional development models that are targeted to an early childhood population “have a positive effect on teachers’ literacy and language instruction and on children’s vocabulary growth” (p. 175).

Morrissey and Vinopal (2018) stress the following with relation to literacy skills needed in early childhood classroom settings: language and oral skills, phonological awareness, print familiarity, letter and letter-sound knowledge, print conventions, word recognition, and vocabulary (p. 760). Stoltz et al (2012) are even more explicit in examining a wide variety of literacy skills that should be mastered in the early childhood classroom. Their list is as follows:

The alphabetic principle, which means that students recognize that letters make up words; letter recognition, with specific attention given to the letters in the child’s name; being able to listen to and understand a story that is read to the child and being able to answer questions about it and predict actions; becoming familiar with narrative structure (beginning, middle, and end); how to identify the parts of a book and know to turn one page at a time in the correct order. (p. 5)

Teachers should have a clear understanding of the importance of mastering early numeracy skills as well being able to assess reading and literacy skills. Morrissey and Vinopal (2018) stress number sense and recognition as well as spatial relations as being important at the early childhood level. Again, Stoltz et al (2012) are more specific. Before entering kindergarten, children should recognize that numbers go in a particular order and that objects can

represent a number. As well, numeracy includes topics such as measurement, weight, and length. It is also at this age that children should begin to sense a pattern with numbers.

In addition to literacy and numeracy, there are also basic science and social studies skills that should be addressed. Things like mapping, using charts and graphs, recognizing shapes, and beginning to understand the concept of cycles are all important aspects of the early childhood classroom (Stoltz et al., 2012). In addition, there should be an emphasis on the five senses.

Diversity. In a time when the life of the family is being transformed by changing work requirements for parents, and workplace and family life balance is becoming more and more difficult, there is also an increase in racial and ethnic diversity. Poverty is causing a widening gap between rich and poor, and many children now come from single parent households (Shonkoff & Phillips, 2000). The population in modern America is a complex mixture, and there are changes occurring which affect this population. Over the past several decades, the number of Asian and Hispanic children in America's classrooms is on the rise, while the number of African American children has stayed fairly stable. The percentage of white children has actually decreased (Shonkoff & Phillips, 2000). These changing demographics can be challenging for teachers who are not prepared. Shonkoff & Phillips go on to point out that "the fundamentals of socialization are culturally embedded and established during the early childhood years" (p. 107) and that teachers need to be aware of these cultural differences. They elaborate further with the following explanation:

"As American culture becomes ever more diverse, a higher priority needs to be granted to research on cultural issues in peer acceptance, rejection, and friendship and their effects on the social development of young children who are increasingly experiencing

culturally diverse groups of peers in their child care and early education settings.” (p. 180)

Teachers must be educated on diversity and the diverse student populations they will be serving. Neuman and Cunningham (2009) contend that “if we are to improve children’s school-readiness skills – especially those who come from high-poverty circumstances – we need to ensure that teachers in the very earliest years have a solid foundation” (p. 543) in those aspects of the early childhood classroom that will prepare them to successfully move on to higher grades. The authors of “From a Nation at Risk to a Nation at Hope” assert that professional development for teachers of young children must include methods used to create inclusive classrooms with respect for the diverse culture of the students within them and “strategies for affirming students’ varied backgrounds” (The Aspen Institute: National Commission on Social, Emotional, and Academic Development, p. 39). The National Association for the Education of Young Children (1993) adds that the professional development offerings themselves should be diverse as there is a great deal of diversity and a variety of needs of teachers in early childhood settings. Lee & Hemer-Patnode (2010) contend that many early childhood teachers would prefer to have professional development activities that are closely aligned with what their classrooms look like and what their specific classroom needs are especially considering the diversity of the student populations with which many of them work.

Classroom Environment. Ackerman & Barnett (2005) point out that insuring a quality preschool has some structural components including student-teacher ratio and the physical environment of the classroom. In this idea learning environment, children are actively involved in learning activities (National Center for Educational Research, 2008), and the teacher “models, tells, shows, explains, and demonstrates information” (Neuman, 2006, p. 31). Shonkoff &

Phillips (2000) point out that “Early environments that facilitate competence and a sense of personal efficacy are more likely to foster children who do well. When the environment supports a child’s emerging sense of agency his or her motivation to act on the world flourishes” (p. 32). They further point out that disadvantaged students benefit positively from “cognitively stimulating environments” (p. 344) and a “diverse selection of recreational activities” (p. 358). The learning environment should have a teacher who is in tune with the children’s abilities and with their interests in order to create the type of environment that best supports learning for all of the unique children in the classroom (National Center for Educational Research, 2008). The environment should promote curiosity and problem solving as well as communication and conversation (Stoltz et al., 2012; Neuman, 2006).

In addition, young children should be encouraged to take ownership of their learning and should have opportunities to contribute to their learning community and should be recognized for their efforts to do so. In this type of learning environment, students can pursue more rigorous academic content (The Aspen Institute: National Commission on Social, Emotional and Academic Development, 2018, p. 21). The authors of this report then go on to say that “too often, teachers and school leaders do not receive preparation and ongoing learning that address the science of human development and how to translate that science into practice” (p. 25). The physical setting for young students is critical in fostering social and emotional learning, and as is pointed out by Jones, Farrington, Jagers, Brackett, and Kahn (2018), it is necessary that the environment have “access to developmentally appropriate learning tools and experiences” to promote this development of the whole learner (p. 21).

Furthermore, a content-rich setting with a wide variety of books, letters, words, and other literacy themed materials will build early literacy skills better than an environment in which

children sit in a group practicing drills and repeating what the teacher says (Neuman, 2006; Shonkoff & Phillips, 2000). Stoltz et al add that through play, with adult guidance, children can develop not only the skills to promote kindergarten readiness but lifelong skills as well. Marie Cecchini (2008) promotes the idea of dramatic play in the early childhood learning environment. She points to dramatic play as a means of increasing attention span, promoting social and communication skills, developing gross and fine motor skills, increasing cognition, and enhancing language development. She stresses a stimulating environment for dramatic play complete with an inviting collection of materials that can be rotated to pique interest and stimulate creativity.

Finally, the learning environment should be supportive with “high levels of teacher interaction,” “opportunities for sustained, in-depth learning,” and “experiences that help students connect learning to what they already know and can do” (Neuman, 2006, p. 31). The classroom environment reflects “the kinds of experiences children have within classrooms on a day-to-day basis. These experiences would include the activities children participate in, the interactions they have with other children, and the interactions they have with their teachers” (Ackerman & Barnett, 2005, p. 104).

Selective Studies on Early Childhood Education and Professional Development

A study completed by Susan Sheridan, Carolyn Pope Edwards, Christine Marvin, and Lisa Knoche for the Nebraska Center for Research on Children, Youth, Families, and Schools sought to determine what processes should form the basis for professional development provided to early childhood educators. Their goal in the study was to provide research which may “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”

(2009, p. 377). Because the professional development of these early childhood educators is so critical to the quality of education provided to young children, it is important to understand the forms and the processes of professional development that best address the needs of early childhood educators and which produce the best outcomes for children and families of these young children. The article pointed out that the goal of early childhood education is to “facilitate the acquisition of specific learning and social-emotional competencies in young children and . . .to promote family-specific attitudes or abilities to support children’s learning and development” (p. 379). The objective of professional development for early childhood educators is to provide the skills, knowledge, and practices needed to educate young children. As well, a second objective is to “promote a culture for ongoing professional growth in individuals and systems” (p. 379).

The research in this study identified five types of professional development including the following: formal education, credentialing, on-the-job service training, coaching/consulting, and communities of practice. Although five types are identified, only the last three are studied in this project. The authors defined service training as that which is delivered to a group of educators with little to no follow up. It is considered to be one-directional, and it is of limited duration and intensity. Coaching/consultation is more of a collaborative partnership that involves “systematic problem solving, social influence, and provision of professional support for an immediate concern” (p. 382). The frequency of contact lessens over time as the problem is solved or the goal is attained. Communities of practice are ongoing and are defined as “groups of individuals who come together on the basis of a common professional interest and a desire to improve their practice in a particular area by sharing their knowledge, insights, and observations” (p. 383).

The relationships in these groups are bidirectional, and the information shared is highly relevant and applicable to current issues and concerns.

One key finding from this project is that specialized training does have a relationship to teacher quality. It is not merely the education level of the teacher but the training that he or she receives while employed that contributes to increasing of the quality of the teacher. The ability to practice new material and to receive feedback while practicing the new skill makes a difference. Another discovery in this study was that multidimensional methods of training produce positive effects. Information combined with modeling, practice, demonstrations, and feedback increase the ability of the teachers to learn the new material and to transfer their new learning to classroom experiences. When coaching is added, skill acquisition and transfer is increased. Finally, communities of practice are identified as the best way to insure that changes in practice are sustained over time, although the authors point out that further research is needed to determine “the efficacy of communities of practice in sustaining quality early childhood programs and the mechanisms by which they support ongoing growth of early childhood practitioners, individually and collectively” (p. 385). Real growth is achieved through experience and practical application, and working in collaborative relationships with colleagues appears to be one way to insure that this real growth is sustained over time.

Overall, one of the key takeaways of this project is that ongoing, supportive experiences in field-based settings are the most beneficial way in which to promote new skills and changes in the behavior of the early childhood practitioner. Still, research is needed to determine the best way to provide these supportive experiences as well as to answer questions related to other contextual issues. Sheridan, Edwards, Marvin, & Knoche (2009) explain the following:

“Further investigation is needed to elucidate effective mechanisms used by coaches to scaffold professional skill development over time, particularly for complex professional skills such as engaging families in learning; promoting early literacy, science, and mathematics; and enhancing English language learners’ early academic competencies, to name a few.” (p. 390)

In a second study, a report was prepared by the Early Childhood Workforce Initiative with assistance from the Step by Step Association and Results for Development “to support and empower those who work directly with young children” (2018, p. 4). The authors of this report, Radhika Mitter and Vidya Putcha (2018), pursued this literature review because of the growing evidence that children’s development is strongly impacted by early childhood development services. The global early childhood workforce is very diverse, but the goal of all practitioners is to “promote the healthy growth, development, and learning of young children” (p. 14). This global study focused on a variety of sectors in which early childhood practitioners are involved, but the one that forms the basis for this summary is the field of early childhood education. This study is part of a series of global landscape analyses, which consider the challenges faced by the global early childhood workforce. Of the four themes identified in this study, this summary will address the theme of in-service training provided to those who work with young children. In addition, because “there is evidence to suggest that supporting individuals with such opportunities can influence child development outcomes” and because “a well-trained and supported early childhood workforce is key to providing high quality services,” the authors felt that it was important to gain a global understanding of what constitutes in-service training, what practitioners need, what kind of professional development makes a difference, and how this translates to better outcomes for young children (p. 5). In fact, “research shows that the

workforce is one of the most important factors influencing the quality of early childhood development services....personnel's level of education and participation in training is a better predictor of program quality than other factors" such as class size or student-teacher ratio" (p. 11). This study conducted an extensive review of the literature on challenges to professional development for the early childhood workforce, and it yielded ten findings, five of which are summarized here.

The first finding is that there is a great variety in professional development provided to early childhood workers. There is a difference in public versus private sector, rural versus urban areas, a difference based upon the age of the children, and a difference based upon training providers. There also exists a history of providing less training to those who work with pre-school age children, although that does show signs of increasing. The second finding is that there exists a great variation in the duration, structure and intensity of professional development worldwide. The categories of professional development include coaching/mentoring, workshops and seminars, peer learning/reflection groups, and specialized or refresher training. The third finding is that in-service training often features training for specific skills based on individual practitioner needs and required competencies. These needed skills are "identified as being important for their job performance as well as the expected service and personnel standards, regulations, and procedures used in their program" (p. 24). In a typical scenario, the competencies needed are identified, and then procedures are developed to ensure that practitioners acquire them via training. The fourth finding is that professional training should focus on local contexts. This type of training is important so that teachers are using "local stories and languages, culturally-relevant child-rearing practices, and locally-available resources" (p. 6). It is critical to involve local stakeholders to make sure that the training curricula matches the

needs and context of the early childhood workforce who will be serving children in local communities. The fifth finding is that the most effective training opportunities are ongoing, tailored to individual needs, and incorporate peer training. As well, time for self-reflection is considered a key component of effective training. Quality professional development generally lasts over the course of a year or longer and involves “pedagogical guidance,” time for guided reflection, and coaching by experienced early childhood practitioners. The authors discovered in the course of this review that peer learning is effective in “building capacity, reducing isolation and burnout, and increasing support” (p. 8).

It is the goal of this study that policymakers, researchers, managers, and early childhood practitioners all over the world can use the findings of this landscape analysis to create training that is designed to support and strengthen the early childhood educators in their own locations. As countries consider how to best provide professional development in their own systems, they may want to consider what programs have been available in the past, what barriers exist, what individual practitioners need, and how to create programs to best serve their educators. They should consider what competencies are needed, what training has relevance for their teachers in different locations, what structure should be used for delivery, and who will be providing the training.

Finally, in a third study, prepared for the U. S. Department of Education Office of Planning, Evaluation, and Policy Development, Zaslow, Tout, Halle, Whittaker, and Lavelle (2010) conducted a literature review to ascertain what constitutes effective professional development strategies for the early childhood workforce. They discovered that a minimum of specialized training for early childhood educators is the norm. They point out that this is occurring at the same time that parents and other stakeholder have high expectations for the

education and care of young children. There appears to be a mismatch between what early childhood practitioners are trained, or not trained, to do and what parents and policymakers expect them to be able to do. The authors assert that “current strategies of professional development do not adequately prepare all educators for the array of responsibilities, knowledge, and skills they are expected to demonstrate in their work with young children” (2010, p. ix). While the authors assert that research in the area of early childhood professional development is in its infancy, there were several key findings that were uncovered from the conducting of this review of the literature. All of these are shared in this policy brief that attempts to provide guidance for school leaders and stakeholders who are responsible for developing effective early childhood professional development strategies for their districts.

One key finding is that specialized training in early childhood education, specifically aimed at teacher/student relationships and interactions with children, provides better overall outcomes for teachers. When training was detailed and specific in this area, the effect on teaching practice was larger. Secondly, modeling, feedback, and guided practice were seen as critical in early childhood professional development. It is not enough to provide teachers with new knowledge and skills. There should also be opportunities for application as well, preferably with a mentor or coach for support and guidance. Along these same lines, joint participation is recommended with the inclusion of both administrators as well as teachers of varying age levels. Including administrators in the professional development experience insures that all are on the same page and that conflicting directions and expectations do not hinder teacher learning. Including teachers of varying grade levels helps to create a sense of continuity in teacher expectations as children move from one classroom to the next. An additional finding is that the intensity and duration of the professional development should match the goal of the learning.

While there are a few skills or activities that can be addressed in a one-day workshop, many of the larger theories or practices that teachers need to develop take time. The learning goal should be identified first, and then the professional development plan should be formatted to provide enough time for the learning goal to be met. Finally, state standards should be considered when planning for professional development. School leaders should be aware of local context and expectations when planning these professional development opportunities for early childhood teachers.

Summary

Most agree that a professional development program is vital to improving the knowledge and skills of teachers and to prepare teachers to meet the needs of their students (Lampert, 2010; Luke & McArdle, 2009; Green, 2013), but there is much to learn about how teachers actually perceive professional development, especially those teachers who are charged with building a foundation for learning in the youngest of the educational population (Maxwell, Field, & Clifford, 2005). Teachers are generally required to attend professional development sessions, but attendance does not guarantee growth, improvement, or teacher effectiveness (Barber & Mourshed, 2007). Planning professional development and then documenting that the professional development occurred does not guarantee that participants have improved practice (Jones, Farrington, Jagers, Brackett, & Kahn, 2018). It is imperative that school leaders have as much information as possible as to how effective early childhood teachers perceive their professional development to have been, especially as it relates to the key components that research says makes up effective professional development. Although much research has been done, ongoing research is needed to determine what kind of professional development early childhood teachers need and desire and how they feel about the opportunities they have been

provided. Therefore, the aim of this study was to add to the growing body of knowledge in the area of early childhood professional development.

Conducting needs assessments of professional development can provide information which may help drive policy and improve the practice of designing effective professional development for early childhood teachers, but teacher perceptions of professional development also serve as a key piece of the puzzle of what teachers need and desire in order to increase their knowledge and skills. This study was designed to provide additional direction and to serve as a guide for administrators in creating meaningful professional development opportunities for early childhood teachers by looking directly at early childhood teachers' perceptions of professional development.

Chapter 3: Methodology

Introduction

The purpose of this quantitative study was to explore teacher perceptions of professional development opportunities among early childhood teachers in the state of Tennessee and to correlate these opportunities to aspects of early childhood learning and to aspects of effective professional development. The questions chosen for inclusion in this study relate to key components of what the research says are critical in providing effective job-embedded professional development to early childhood teachers. As continual assessment is considered a key component to any effective professional development program, the survey used in this study attempts to shed light on how effective early childhood teachers in the state of Tennessee perceive their prior professional development to have been.

In addition, the study examined a variety of demographic characteristics and considered whether and how these characteristics influenced teacher perceptions of professional

development and the association between these perceptions and aspects of early childhood learning and effective professional development. The aim of this study was to produce a set of findings that could be utilized in efforts to improve professional development for early childhood teachers.

The series of research questions chosen for inclusion in this study are supported by the conceptual frameworks of job-embedded professional development and by the Interactive Model of Program Planning. In addition, the questions address critical components of early childhood education, perceptions of availability of professional development opportunities, and perceptions of the effectiveness of those opportunities among early childhood teachers. In addition, individual differences are also considered:

1. To what extent do early childhood teachers perceive that their professional development addresses planning content including opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?
2. To what extent do early childhood teachers perceive that their professional development addresses design instruction including the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?
3. Is there a correlation between teacher perceptions of professional development and school size?
4. Do teacher perceptions of professional development differ based on any demographic characteristics?

In this chapter, the research design and rationale will be discussed, including descriptions of variables and resource constraints, followed by a detailed description of the methodology, including a description of how the data utilized in this study were acquired and the population from which the sample will be drawn. Then, the measures and plan for data analysis will be previewed. Finally, the chapter will conclude with a discussion of the threats to validity and ethical procedures to be undertaken.

Research Design and Rationale

This quantitative study used statewide survey data to understand early childhood educators' perceptions of professional development opportunities across the state of Tennessee. Survey methodology that utilizes closed-ended questions with forced choice response options is commonly used to assess individual participant perspectives on a topic of interest. The two dependent variables of interest in this study include (1) early childhood educators' perceptions of professional development opportunities that include reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content, and (2) early childhood educators' perceptions of the extent to which professional development opportunities adequately address the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment. The independent variables include school size and demographic characteristics. This quantitative study relied on descriptive and empirical analyses that examined the range of perceptions on these variables and the extent to which perceptions differ based on school size and demographic characteristics. Data collected directly from early childhood educators is invaluable as it provides a primary source of information and allows for ongoing improvements in professional development curriculum in order to respond to feedback.

Target Population and Sample

The target population for this study included all teachers in the state of Tennessee who taught early childhood education and participated in professional development opportunities. The sample was passively recruited via a web-based strategy, in which personalized invitations were sent to all teachers for whom contact information was available in a statewide database of educators. All potential participants had access to the survey for a 6-week period during March 2018. The researcher combed through the available data and hand-selected schools that matched specific eligibility requirements: those that taught early childhood (i.e., pre-kindergarten to 2nd grade), those that had a participation rate that was higher than 50%, and those that were located in West, Middle, and East Tennessee. In total, based on these eligibility requirements, participants included all teachers who completed the survey at two early learning centers, four schools for pre-kindergarten through 1st grade, and twelve schools for pre-kindergarten through 2nd grade.

Data Collection and Access

This study relied on archival data that was collected by the Tennessee Board of Education, in partnership with the Tennessee Education Research Alliance (TERA) at Vanderbilt University, in an effort to deepen state, district, and school policymakers' understanding of the perspectives held by school-level educators on the issues affecting classrooms and schools. Data were collected via a voluntary survey that was open to all teachers, administrators, and other certified staff listed in the TN Compass and Tennessee Education Information System (EIS) databases. Personalized invitations were sent to all those listed, which invited them to participate in the survey during a six-week window of time when the web-based survey was active.

In addition to these teacher-reported survey data, administrative data was utilized that provided information on the participating schools. These schools' profiles are described in terms of size, which were included as a covariate in the main study analyses. In addition, descriptive analyses depicted (a) the proportion of students at each participating school that qualify as economically disadvantaged, limited English proficiency, and disabled, (b) the location and type of school, and (c) the proportion of students who identify as Black, White, and Hispanic. While there are other ethnic categories that may have been included, due to the smaller percentage of these ethnicities, the state of TN data provided percentages for Black, White, and Hispanic, and the researcher chose to focus on these students as they tend to make up the majority of students in the state of Tennessee.

Specific permissions were not necessary in order for the researcher to access the data that resulted from the survey administration. The data were made publicly available on a webpage that is owned and maintained by the Tennessee Board of Education. The researcher's process of downloading the data and creating a personalized dataset are described below.

Instrumentation and Operationalization of Constructs

The constructs of interest in this study include early childhood teachers' perceptions of the professional development opportunities made available to them, the extent to which professional development focused on specific topics, and specific teacher and school demographic characteristics, including school size and demographics. The survey questions that were included in the 2018 Tennessee Educator Survey were drawn with explicit permission from other large-scale, validated educator surveys including the Schools and Staffing Survey (SASS; Goldring, Gray, & Bitterman, 2013), the Teaching, Empowering, Leading, and Learning (TELL)

survey (New Teacher Center, 2013), and the University of Chicago Consortium on Chicago School Research's 5 Essentials survey (Klugman, Gordon, Sebring, & Sporte, 2015).

The state of Tennessee has used the Teacher Educator Survey for almost a decade, and the results of this survey have been used in a variety of ways to inform school leaders, drive research, and influence policymakers in the state. Since 2011, the Tennessee Department of Education (TDOE) has partnered with the Tennessee Education Research Alliance (TERA) at Vanderbilt University to gather critical data about schools in the state of Tennessee. The purpose of TERA is to "further bridge the gap between research, policy, and practice" and to allow those who work in education to have a "greater impact on policy and practice" (Tennessee Education Research Alliance, n.d.). Additionally, TERA is unique in that it is only one of a few groups that focus on state specific educational policy. For eight years, this research-practice partnership has been used to inform decisions, encourage research, and drive education policy. The collaborative effort between TERA and the TDOE releases a yearly Educator Survey that seeks to "develop a deeper understanding of the educator's perspective to guide strategies and goals at the state, district, and local school level" (Brasher, 2019). In addition, this survey "aims to take the pulse of teacher perceptions, monitor school climate and culture across the state, and include educators' voices in the policy discussion" (Bailey, 2016, p. 1). This annual survey has become a valuable tool for researchers and policymakers in the state of Tennessee to investigate what is working and what changes need to be made. As well, their findings contribute to the national conversation about the current state of education in the United States.

All respondents complete the Tennessee Educator Survey based on their self-reported role (teacher, administrator, counselor), and all results for schools whose participation rate reaches fifty percent are available publicly via the survey website and in a downloadable spreadsheet

form. Participation rate has grown in recent years from approximately 30,000 teachers taking part in 2016 (Bailey, 2016) to a little over 40,000 taking part in the 2018 survey. This represents almost sixty percent of the educational personnel in the state of Tennessee providing their perceptions on the current state of education. The survey offers a current snapshot of education in Tennessee: “where we are – and where we need to go – if we are to meet our collective goals around excellence and equity, ensuring that all students find success both while attending our schools and following high school graduation” (Bailey, 2016, p. 1).

One of the key themes on the Tennessee Educator Survey is that of professional learning. Because of teacher responses in early surveys and because there is an increasing recognition that “high-quality professional learning is an integral part of the growth process” for teachers, more attention has been given to this topic in recent years on the survey, and research questions related to this topic continue to be added and revised (“Tennessee Education Research Alliance: Research Agenda”). Jeff Archer (2017), in his policy brief “What We Need to Know to Improve Professional Learning: Questions to Drive a Research Agenda,” states that “improving professional learning is less about knowing which program to adopt than knowing how to align resources and effort” (p. 1). He goes on to say that in early 2017 a group of educators, policymakers, and researchers came gathered to collaborate on questions related to professional learning. Some of the topics discussed, based upon prior survey data, include productive collaboration, support and time for teachers to share with one another, meeting teachers’ individual needs, and feedback. One lesson, for example, that was learned from the 2016 Educator Survey was that teachers do not have many opportunities to take part in the kinds of professional learning activities that they find most helpful (Archer, 2017, p. 4). The 2018 Teacher Educator Survey discovered that teachers did not have sufficient time for planning and

collaboration. In addition, they rarely got to choose their own professional development activities, and they felt that school-wide professional development opportunities were not helpful. In particular, in this 2018 survey, Pre-K teachers reported a need for differentiated classroom materials and professional learning provided by an expert in that level (“Reflections over time: Tennessee Educator Survey 2018 Results in context”, 2018). Other key takeaways from prior surveys include the fact that “teachers often have little choice in determining their professional learning activities,” “teachers think their professional learning improves their practice, especially when it is tailored to their needs,” and “teachers rate professional development that they select as more helpful than professional development that is required for all teachers in their school or district” (Patrick, 2019, p. 2-3).

Over the course of almost a decade, the Tennessee Educator Survey has been used to evaluate educational issues and make recommendations state-wide on a variety of topics. One of these topics, the professional learning of Tennessee teachers, continues to garner much of the focus of their research, and “these trends lay the foundation for future TERA research that will look in greater detail at teacher professional learning experiences and examine which ones truly help improve instruction and are more likely to lead to better student outcomes” (Patrick, 2019, p. 1). Using information gleaned from these surveys allows researchers to know what topics to focus on in major research projects. In addition, each survey result is used to hone the questions for the following survey. Finally, education policy is shaped, in part, by what researchers and policy makers learn through these surveys about what the profession of teaching looks like each year in the state of Tennessee.

In the present study, only a subset of the survey questions were utilized, and these are shown in Table 1, as are the response options for each question. This particular subset of

questions was chosen because of its relationship to the conceptual framework of job-embedded professional development. As well, this survey was chosen due to the fact that it is conducted annually and serves as a form of continual evaluation which is recommended by Caffarella and Daffron. Because the present study sought to understand teacher responses to each of the survey items included, scores on these questions were not combined to create a specific scale; instead, item-level descriptive statistics were computed and empirical analyses were conducted on the individual items, rather than on a scale score that combined responses across items for each participant.

Table 1

Survey Questions and Response Options by Research Question

Research Question	Survey Items	Response Options
RQ1: To what extent do early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?	The Collaborative planning time provided for teachers in my school is sufficient.	Strongly agree (1) – Strongly disagree (4)
	I have a group of colleagues whom I regularly meet to reflect on potential improvements to instructional practice.	Never (1) – Always (4)
	Our school staff is a learning community in which ideas and suggestions for improvement are encouraged.	Strongly agree (1) – Strongly disagree (4)
	I receive specific learning suggestions that are tailored to my needs.	Strongly agree (1) – Strongly disagree (4)
	My professional learning is closely aligned to the instructional materials I use in class	Strongly agree (1) – Strongly disagree (4)

Table 1 Continued

<p>RQ2: To what extent do early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?</p>	<p>General instructional strategies and practices. Instructional strategies specific to subject area content.</p> <p>Using the curriculum provided for my class.</p> <p>Covering standards within my instruction.</p> <p>Addressing student socio-emotional development needs.</p> <p>Working with students from diverse racial, ethnic, or cultural backgrounds.</p> <p>Meeting the needs of all learners.</p> <p>Addressing student behavior issues.</p>	<p>Response options for each survey question:</p> <p>Need more and higher quality PD (1);</p> <p>Need more PD (2);</p> <p>Need higher quality PD (3);</p> <p>Satisfied with PD quality and quantity (4)</p>
<p>RQ3: Is there a correlation between teacher perceptions of professional development and school size?</p>	<p>Same as above</p>	<p>Same as above</p>
<p>RQ4: Do teacher perceptions of professional development differ based on any teacher demographic characteristics, or student/teacher ratio?</p>	<p>Same as above</p>	<p>Same as above</p>

Validity and Reliability. Each of these surveys from which questions items were selected were carefully constructed by educational researchers and statisticians. They have been validated with numerous school districts and are widely used throughout the United States.

When considering the validity of instruments, Cronbach's alpha is most commonly used to validate the internal consistency of an instrument (Heale & Twycross, 2015). A Cronbach's alpha result of .7 and higher is generally accepted in research studies. For the instruments utilized in this study, alpha scores ranged from .62 to .97. Of the 31 factors evaluated, only five fell below the score of .7. Consequently, it can be concluded that the survey items selected for this study's instrument is acceptably valid for measuring the constructs outlined in this research. The reliability of the selected instruments has been demonstrated through the repeated use of these instruments in recent literature. Reliability refers to the consistency of a measure in producing reliable results, through testing and retesting as well as through internal consistency (Heale & Twycross, 2015). Each of the instruments utilized in this study have shown correlations with similar validated instruments and have demonstrated test-retest reliability over time with repeated use (Cox, Parmer, Strizek, & Thomas, 2017; Luppescu, 2016). Therefore, it can be concluded that the survey items selected from these instruments are reliable and valid for the current study.

Data Analysis Plan

The archival data that were used in this study were collected as part of the 2018 Tennessee Educator Survey. These data are publicly available via a web-based dashboard that allows viewers to examine survey results by specific district and school. Data were downloaded from this dashboard and organized and cleaned using Microsoft Excel. Once the dataset was built, analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 25.

Data preparation focused on downloading individual school data from the web-based dashboard and building a dataset that showed each participating school in a row with statistics

including the proportion of teachers at that school who gave each specific response to each survey question. In addition, statistics were compiled by school to demonstrate the proportion of teachers who responded to the surveys that fall within each demographic category. Data cleaning included (a) identifying any missing data and examining whether these data were missing at random or whether specific patterns are recognizable, (b) checking that all variables are within the expected ranges, and (c) testing the assumptions of normality, linearity, and homoscedasticity.

The main study analyses were then conducted to address the main research questions, assessing early childhood teachers' perceptions of the effectiveness of the professional development opportunities in which they have participated. Specifically, to address the first two research questions about (a) PD providing opportunities for reflection, collaboration and feedback, addressing unique needs, and teacher choice regarding structure and content and (b) PD covering student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity, and classroom environment, descriptive statistics will be calculated. These descriptive statistics will showcase the proportion of teachers who selected each response option.

To address the third research question, examining whether or not there is a correlation between teacher perceptions of professional development and school size, a series of correlation analyses were conducted. Bivariate correlation analysis is appropriate for use when examining the magnitude and direction of the association between two continuous variables. Pearson's r -values are calculated in this type of analysis and range between -1 and 1. These r -values will be interpreted, along with the associated p -values, to determine whether the Pearson's r -values are statistically significant ($p < .05$).

To address the final research question, examining whether teachers' perceptions of professional development differed by demographic characteristics, a series of independent samples *t*-tests and analyses of variance (ANOVA) were conducted. These analytic techniques allow for a statistical comparison of means between two groups (*t*-tests) or more than two groups (ANOVA). To interpret whether there are significant differences in teacher perceptions by demographic characteristics, *t*-values (for *t*-tests) and *F*-values (for ANOVA) will be assessed.

Threats to Validity

In designing a study, it is important to acknowledge potential threats to the validity of the data collected and the analyses conducted. This study utilizes data that were collected via self-report survey from early childhood educators in Tennessee who voluntarily participated upon receiving a personalized invitation by email. This methodology poses several potential threats to validity. First, self-report survey data is always at risk of suffering from social desirability bias. That is, there is a chance that participants may feel internal pressure to select specific responses in order to please the perceived administrator of the survey. In this case, since the survey was administered by the Tennessee Board of Education, which represents the employer of the participating educators, there is a chance that this may have influenced how participants responded to the survey questions. However, this potential threat to validity was mitigated by providing participants with explicit information on how their confidentiality would be protected and by avoiding asking participants to include any personally identifiable information.

Another potential threat to the validity of this study is represented within the extent to which the responses provided on the survey actually represents the perspectives of the entire population of early childhood educators in Tennessee. Given that participants voluntarily chose whether or not to participate, it may be that those who chose to respond to the questions, did so

because they felt a certain way about professional development. For example, it may be that participants who were particularly unhappy with the professional development opportunities offered were significantly more likely to participate than educators who feel that the professional development opportunities are plentiful.

A final potential threat to validity exists in the researcher's decision to use individual items from the survey to address the study research questions, rather than using full scales. Although the measures included on the survey have been validated with other samples, in this study only a subset of the survey items were utilized. No validation has been conducted with these items, so there is a chance that the survey items will suffer from less reliability and validity than the entire survey.

Ethical Procedures

The archival data utilized in this study were collected by the Tennessee board of education and are publicly available. To protect the confidentiality and privacy of all participating teachers, no individually identifying information were made available to the researcher (or the public, more generally). Instead, all demographic data that provides information on participating teachers is presented in aggregate at the school level, so that there is no risk of teachers' identities being uncovered.

Although these archival data are publicly available on the internet, the researcher went to additional effort to ensure that the datasets compiled are not accessible to anyone outside of the research team. During the data preparation phase, data were downloaded onto the researcher's private computer that is password-protected and only utilized by the researcher. Although school names are available on the web-based dashboard that houses the data, the researcher replaced all school names in the dataset that she created with ID numbers, rather than using the names of the

schools. Although readers will be able to see the type of school, number of participating teachers, and demographic characteristics (in aggregate) of these teachers, the actual identity of the school will not be revealed.

At the conclusion of the study, all study data will be retained for seven years, as is standard procedure with quantitative data. The data will continue to be stored on the researcher's password-protected, personal computer and will only be available to the researcher.

Presentations of the data, in print or oral format, will only describe data in aggregate, across all participating schools and school identities will not be shared with audiences.

Summary

This quantitative study sought to understand early childhood educators' perspectives on the professional development opportunities within the state of Tennessee. Data were collected via a statewide, web-based survey that was made available to all educators and administrators across the state. Survey results are publicly available on a web-based dashboard that is owned and maintained by the Tennessee Board of Education. This study focused on early childhood educators within the three regions of the state of Tennessee who teach students in pre-kindergarten through 2nd grade and who teach in schools where the survey response rate was greater than 50%. Descriptive and empirical analyses were conducted to understand the range of perspectives on professional development opportunities within the state, aggregated by school, and will seek to understand whether these perspectives differ by school size, teacher demographic characteristics, or teacher/student ratio. The following chapter provides a detailed summary of the participants and the analyses that were conducted to address the study research questions.

Chapter 4: Results

Introduction

This quantitative study utilized school administrative data and teacher survey data to examine teacher perceptions of professional development opportunities among a sample of early childhood teachers at eighteen schools in the western, middle, and eastern areas within the state of Tennessee. As Caffarella and Daffron (2013) point out in their Interactive Model of Program Planning, continual evaluation is a key aspect of effective program planning. The Tennessee Educator Survey serves as an annual evaluation of the perceptions of teachers in several categories, one of which is professional development. The overarching goal of the study, therefore, was to better understand how professional development opportunities could be improved for teachers representing in the area of early childhood education. As this study was derived from the conceptual framework of job-embedded professional development, the researcher chose to focus on the features of professional development that reflect key aspects of effective job-embedded professional development. As well, the researcher chose to select topics that the research shows are crucial in early childhood education. The study addressed the following questions:

1. To what extent do early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?
2. To what extent do early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child

development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?

3. Is there a correlation between teacher perceptions of professional development and school size?
4. Do teacher perceptions of professional development differ based on any school demographic characteristics?

The eighteen schools that were included in the analysis of these research questions were chosen because the teacher surveys had a participation rate that was higher than 50%, and they were located in the geographic area of interest. For all but one of these schools, administrative data were available that provided information on student enrollment and student demographic characteristics, including gender, race/ethnicity, proportion of students who were identified as English language learners, proportion of students who were economically disadvantaged, and proportion of students who were identified as having some kind of disability.

Data from these two sources of information – that is, the Tennessee Board of Education administrative records and aggregate results of the teacher surveys that are publicly available – were combed by the researcher and used to build a complete dataset that included 18 rows of data: one row for each included school. The data were stored and analyzed using the Statistics Program for the Social Sciences version 25 (SPSS; IBM Corps, 2017), a commonly used and highly regarded software tool that allows for quantitative analysis of data points.

Data Collection: School Descriptive and Demographic Data

Eighteen schools were included in this quantitative study. The descriptive statistics for each of these schools, as well as summaries of the student demographic data for each school, are presented in Table 2. As shown, administrative data for Ivanetta were not available, and

therefore this school was not included in analyses that considered whether there were differences in the study outcomes based on school demographic and descriptive information. In Table 3, measures of central tendency are shown for each of these descriptive and demographic characteristics across all of the schools. As shown, the school enrollment for these schools widely varied, with one school only having 123 students and the largest school having more than 600 students. All schools were roughly evenly split between male and female students and the majority of students identified as either White or African American, with schools, on average, showing that approximately 75% of students identified as White, although there was a range, likely influenced by geographic region (i.e., since schools were from the Eastern,

Table 2.

Descriptive and Demographic Data for All Participating Schools

School	Enrollment <i>n</i>	Female %	African American %	Asian %	White %	Hispanic %	Econ. Dis. %	ELL %	Disability %
Ivanetta	--	--	--	--	--	--	--	--	--
Anderson	315	51.40	7.70	2.20	84.50	5.30	78.30	1.20	24.10
Stigall	217	47.60	67.00	0.90	27.30	4.80	76.70	2.60	13.20
Rutledge	123	41.70	0.80	0.00	78.70	20.50	40.20	8.70	32.30
Oak Grove	457	52.70	20.10	1.10	63.90	14.20	49.50	10.10	19.00
Baxter	249	42.80	1.60	0.40	96.30	1.60	43.20	0.00	13.60
Camden	382	44.60	5.40	1.10	90.30	3.20	44.40	0.00	24.50
W. Carrol	175	50.00	17.00	0.00	80.70	1.70	46.00	0.00	18.20
Smithville	486	47.20	4.50	0.60	71.80	22.70	49.50	15.10	17.60
Dyersburg City	617	48.60	43.20	1.80	47.30	7.50	57.40	2.50	13.60
Medina	525	47.70	4.20	1.10	92.20	2.50	13.60	0.40	11.40
Pulaski	397	49.00	31.50	1.30	61.50	5.30	58.50	2.80	16.30
Centerville	338	42.70	3.90	0.90	91.90	3.00	44.80	0.60	20.60
East Hickman	400	45.70	3.00	0.30	94.20	2.30	43.10	1.30	20.10
Martin	428	48.10	18.90	1.40	73.80	5.80	39.00	0.20	12.90
Robert Woodall	411	45.10	6.10	1.20	87.00	5.10	21.60	1.50	15.90
Lewis	354	50.80	6.20	0.60	89.60	3.40	41.00	0.30	21.60
Ripley	581	46.80	53.70	0.00	42.70	2.10	62.20	1.40	13.00

Note. Administrative data not available for Ivanetta. Econ. Dis. = economically disadvantaged. ELL = English language learner.

Table 3

Measures of Central Tendency for Descriptive and Demographic Data Across All Schools

	Range	<i>M</i>	SD	Median	Skewness	Kurtosis
Enrollment	123 – 617	379.71	136.29	397.00	-0.17	-0.35
Female	41.70 – 52.70	47.21	3.15	47.60	-0.13	-0.65
African American	0.80 – 67.00	17.34	20.00	6.20	1.48	1.27
Asian	0.00 – 2.20	0.88	0.63	0.90	0.29	-0.24
White	27.30 – 96.30	74.92	20.21	80.70	-1.11	0.44
Hispanic	1.60 – 22.70	6.53	6.42	4.80	1.83	2.37
Econ. Dis.	13.60 – 78.30	47.59	16.37	44.80	0.01	0.75
ELL	0.00 – 15.10	2.86	4.29	1.30	2.02	3.49
Disability	11.40 – 32.30	18.11	5.44	17.60	1.10	1.41

Note. *M* = mean. SD = standard deviation. Econ. Dis. = economically disadvantaged. ELL = English language learner.

Western, and central parts of the state, which likely experienced different historic migration patterns by different ethnic and racial groups. Although the range of proportions of students who were identified as economically disadvantaged was wide (between 14% – 78%), on average almost half of the students at a given school fell into this category. Smaller proportions of students were identified as English language learners and students with disabilities.

These demographic and descriptive characteristics are representative of the full population of schools across these geographic regions of the state of Tennessee.

The skewness and kurtosis values provide indications of whether or not the data for each of these variables are normally distributed. Skewness provides information on whether

participant scores are clustered toward one end of the scale. Skewness values between -3 and 3 indicate that data are relatively normally distributed. Kurtosis provides information about the dispersion of scores within a distribution; in other words, it indicates whether participant scores were dispersed throughout all possible values on a scale or whether they are clumped together with many participants obtaining the same score. Kurtosis values between -8 and 8 indicate that data are relatively well dispersed across all possible scores. The values shown for the variables included in this study indicate that these data are normally distributed.

Data Analysis and Results: Teacher Perceptions of Professional Development

The first research question examined the extent to which early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback and addresses their unique/individual needs and teacher choice regarding structure and content. This question was chosen due to its relationship with what educational researchers agree are some of the key components of effective job-embedded professional development (Zepeda, 2015; Creemers, Kyriakides, & Antoniou, 2013; Matherson & Windle, 2017; Roy, 2010; Clark & Hollingsworth, 2016). To analyze this question, descriptive statistics were calculated for five items on the teacher survey. The results are shown in Table 4, for the average proportion of teachers across all 18 participating schools that strongly disagreed, disagreed, agreed, and strongly agreed for each of these survey items. As shown, for all of these survey items, the majority of teachers selected either Agree or Strongly Agree, suggesting that the majority of teachers feel that the professional development experiences that are available to them do provide opportunities for reflection, collaboration, and feedback to address their unique/individual needs and teacher choice. However, between 9-24% of teachers do not feel

that this is the case (based on the combined proportion of teachers who Strongly Disagreed or Disagreed with these survey items. This suggests that additional research may be warranted.

Table 4

Teacher Responses to Questions about Professional Development Opportunities

Survey Item	Strongly disagree <i>M (SD)</i>	Disagree <i>M (SD)</i>	Agree <i>M (SD)</i>	Strongly Agree <i>M (SD)</i>
The Collaborative planning time provided for teachers in my school is sufficient.	.06 (.08)	.16 (.15)	.59 (.15)	.19 (.12)
I have a group of colleagues whom I regularly meet to reflect on potential improvements to instructional practice.	.04 (.05)	.05 (.06)	.33 (.14)	.59 (.16)
Our school staff is a learning community in which ideas and suggestions for improvement are encouraged.	.01 (.03)	.08 (.09)	.52 (.14)	.40 (.18)
I receive specific learning suggestions that are tailored to my needs.	.02 (.03)	.16 (.11)	.56 (.14)	.27 (.17)
My professional learning is closely aligned to the instructional materials I use in class	.03 (.05)	.11 (.09)	.61 (.14)	.24 (.14)

Note. The values in this table represent the average proportion of teachers who selected each response option across the 18 participation schools, shown as decimals. For example, .05 = 5%. M = mean. SD = standard deviation.

Teacher Perceptions of Representativeness of Topics Covered in Professional Development

The second research question examined the extent to which early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment. This question was chosen because of its relationship to the critical components of early childhood education (Rimm, Kaufman, & Pianta, 2001; Shonkoff & Phillips, 2000; Dickinson & Brady, 2006). Again, to analyze this question, descriptive statistics were calculated for five items on the teacher survey. The results are shown in Table 5, for the average proportion of teachers across all 18 participating schools that selected each of the following response options: (1) I need both more professional development experiences and higher quality professional development in this area, (2) I need more professional development experiences that emphasize this area, (3) I need higher quality professional development in this area, and (4) I am satisfied with both the quality and amount of professional development received in this area. As shown, a significant majority of teachers reported feeling satisfied that their current professional development experiences address each of these specific topics. Teachers seem to be most satisfied with the professional development experiences that are focused on instruction and curriculum. When it comes to other aspects of their teaching, however, such as support with student socio-emotional development, behavioral issues, and diversity, smaller proportions of teachers reported complete satisfaction. This suggests that one area for improvement within professional development across the state of Tennessee could be on these topics that are often not considered to be as important in the world of education, but are in fact issues that are coming up in teaching and in the classroom more

generally and deserve significant attention, particularly in preparing teachers to handle classrooms full of children from diverse backgrounds and with unique needs.

For the majority of these specific topics, the proportion of teachers who reported needing *higher quality* professional development experiences were higher than the proportion of teachers who reported needing *more* of these experiences. This suggests that there is some recognition by administrators that these are topics that are important for teachers to learn about, and are attempting to offers these types of professional development experiences, but perhaps additional expertise is needed to make these experiences of a higher quality so that they are more meaningful and useful to teachers.

Table 5

Teacher Satisfaction with the Amount and Quality of PD that Addresses Specific Topics

Survey Item	More & Higher Quality PD <i>M (SD)</i>	Need more PD <i>M (SD)</i>	Need Higher Quality PD <i>M (SD)</i>	Satisfied with Current PD <i>M (SD)</i>
General instructional strategies and practices	.06 (.06)	.09 (.07)	.08 (.05)	.77 (.09)
Instructional strategies specific to the subject	.12 (.08)	.12 (.07)	.15 (.09)	.62 (.14)
Using the curriculum provided for my classes	.11 (.09)	.08 (.06)	.14 (.09)	.67 (.16)
Covering standards within my instruction	.09 (.07)	.09 (.07)	.12 (.09)	.70 (.14)
Addressing students' socio-emotional development needs	.08 (.05)	.16 (.07)	.15 (.09)	.61 (.09)

Table 5 Continued

Working with students from diverse racial, ethnic, or cultural backgrounds	.07 (.06)	.13 (.06)	.12 (.07)	.69 (.10)
Meeting the needs of all learners	.12 (.10)	.15 (.08)	.16 (.08)	.57 (.13)
Address student behavioral issues	.14 (.08)	.14 (.10)	.21 (.07)	.52 (.12)

Note. The values in this table represent the average proportion of teachers who selected each response option across the 18 participation schools, shown as decimals. For example, .05 = 5%. PD = professional development. M = mean. SD = standard deviation.

Professional Development and School Size

The third research question examined whether there was a significant correlation between school size and teacher perceptions of professional development experiences. To address this research question with the first set of survey items, focused on the extent to which teachers perceived that there were opportunities for reflection, collaboration and feedback and addresses their unique/individual needs and teacher choice regarding structure and content (i.e., those items used to address research question 1), teacher survey responses were recoded into a new continuous variable for each survey item that reflected the proportion of teachers at each school who agreed or strongly agreed with that item.

Then, a correlation analysis was computed, which is appropriate for use when examining the relationship between two continuous variables – in this case, proportion of teachers who responded agree/strongly agree to each question and school size. The results of this analysis are shown in the correlation matrix in Table 6. As shown, none of the correlations between enrollment and proportion of teachers who agreed/strongly agreed with each item shown in Table 5 reached significance. However, some of the p-values suggested that some of these items

approached significance; with a larger sample size, it is likely that we would see a significant, positive correlation between school size and teachers who feel that they have a group of colleagues who they regularly meet to reflect on potential improvements to instructional practice. In other words, the larger the school, the more likely that teachers at that school felt this way. In contrast, there was a negative association between enrollment and teachers who feel that the staff at their school make up a learning community in which ideas and suggestions for improvement are encouraged. This suggests that this is more true for teachers at smaller schools, rather than larger schools, and this association might be significant with a larger sample size. As being a part of a learning community and having colleagues with whom to meet regularly to discuss and solve problems are considered vital to job-embedded professional development, these findings reflect possible areas for further review.

Table 6

Correlation Matrix Examining the Association between School Size and Survey Responses

Survey Item	Enrollment	
	Pearson's <i>r</i>	<i>p</i>
The Collaborative planning time provided for teachers in my school is sufficient.	-.262	.309
I have a group of colleagues whom I regularly meet to reflect on potential improvements to instructional practice.	.451	.069
Our school staff is a learning community in which ideas and suggestions for improvement are encouraged.	-.343	.178
I receive specific learning suggestions that are tailored to my needs.	-.139	.595
My professional learning is closely aligned to the instructional materials I use in class	-.301	.240

Next, the items that were utilized to address the second research question, examining the extent to which teachers were satisfied with the quantity and quality of professional development that addresses specific topics, were recoded. This was done in a similar way to the above set of items, with the original variables dichotomized and new variables created that reflected the proportion of teachers who were satisfied with both the quantity and quality, compared to those who were not satisfied with one or both the quantity and quality. Then, another correlation analysis was conducted. The results of this analysis are shown in Table 7. Again, none of these correlations showed a significant association between the teacher survey responses and enrollment. However, one of the items approached significance; there was a negative association between enrollment and teachers who were satisfied with the quantity and quality of professional development that focused on working with students from diverse backgrounds. In other words, a higher proportion of teachers from smaller schools were more likely to be satisfied that this topic was covered sufficiently well in terms of quantity and quality.

Table 7

Correlation Matrix Examining the Association between School Size and Teacher Satisfaction with the Quantity and Quality of PD that Addresses Specific Topics

Survey Item	Enrollment	
	Pearson's <i>r</i>	<i>p</i>
General instructional strategies and practices	.138	.597
Instructional strategies specific to the subject	-.089	.734
Using the curriculum provided for my classes	-.329	.197
Covering standards within my instruction	-.234	.367
Addressing students' socio-emotional development needs	-.268	.299

Table 7 Continued

Working with students from diverse racial, ethnic, or cultural backgrounds	-.388	.124
Meeting the needs of all learners	-.176	.500
Address student behavioral issues	.027	.917

Differences in Teacher Satisfaction with Professional Development by School

Characteristics

The fourth research question examined the extent to which teacher satisfaction with their professional development experiences differed by specific school characteristics. Using administrative data provided by the Tennessee Board of Education, this study was able to incorporate information on the proportion of students who were economically disadvantaged, were English language learners, or who suffered from disabilities. These proportions were then compared with the proportion of teachers who responded that they agreed or strongly agreed with the survey items asked about satisfaction with professional development (i.e., those items that were used to address the first research question. This correlation analysis utilized the newly recoded variable that was created to answer the third research question. These correlations are shown in Table 8. As shown, there were three significant correlations.

First, there was a significant, negative association between teachers who felt that they had a group of colleagues who regularly meet to reflect on potential improvements to instructional practice and the proportion of students with disabilities. This suggests that schools with less students with disabilities had a higher proportion of teachers who agreed or strongly agreed with this survey item. Second, there was a significant, negative correlation between teachers who feel that the staff at their school is a learning community in which ideas and suggestions for improvement are encouraged and the proportion of students who are English language learners.

This indicates that schools with fewer students who are English language learners had a higher proportion of teachers who agreed or strongly agreed with this survey item. Third, there was a significant, negative correlation between teachers who feel that they receive specific learning suggestions that are tailored to their needs and the proportion of students who are English language learners. This suggests that schools with fewer students who are English language learners had a higher proportion of teachers who agreed or strongly agreed with this survey item.

There were no significant correlations between any of the survey items and the proportion of students in a school who were identified as economically disadvantaged. Although none of the other survey items were significantly correlated with the proportions of students who were English language learners, some of the p-values indicated that these correlations approached significance (i.e., those below .100); with a larger sample size, it is likely that some of these other correlations may also be significant.

Table 8

Association between School Characteristics and Teacher Satisfaction with Professional Development Experiences

Survey Item	% Students Econ. Disadvantaged		% Students English Language Learners		% Students with Disabilities	
	Pearson's <i>r</i>	<i>p</i>	Pearson's <i>r</i>	<i>p</i>	Pearson's <i>r</i>	<i>p</i>
The Collaborative planning time provided for teachers in my school is sufficient.	.233	.367	-.419	.094	.056	.832
I have a group of colleagues whom I regularly meet to reflect on potential improvements to instructional practice.	-.010	.969	-.461	.063	-.514*	.035
Our school staff is a learning community in which ideas and suggestions for improvement are encouraged.	-.152	.561	-.636**	.006	.165	.527
I receive specific learning suggestions that are tailored to my needs.	-.119	.648	-.667**	.003	.051	.846
My professional learning is closely aligned to the instructional materials I use in class	-.033	.898	-.309	.228	.008	.976

Note. Significant associations are shown in bold and with asterisks (based on $p < .05$).

This correlation analysis was repeated for the survey items that asked teachers whether they were satisfied with the quantity and quality of professional development that addressed specific topics. These results are shown in Table 9. In contrast, none of these survey items was significantly correlated with the proportions of students at the school who were economically disadvantaged, English language learners, or who had disabilities. In other words, teacher satisfaction with the quantity and quality of professional development experiences that addressed specific topics was not associated with these school characteristics. None of the correlations shown in Table 8 approached significance, suggesting that even with a larger sample, it is unlikely that significant associations would emerge.

Summary

This quantitative, correlational study examined the extent to which early childhood teachers from a subset of schools in Tennessee are satisfied with the professional development experiences that have been made available to them. Data were collated from two distinct sources – Tennessee Board of Education administrative records that provided descriptive information on the schools and a Board of Education survey that was administered to all teachers across all schools in the state. Eighteen early childhood schools were selected for inclusion in this study by the researcher, based on a response rate of at least 50% on the teacher survey. As well as a descriptive examination of the proportion of teachers across these schools who responded specific ways to the survey items, correlation analyses were conducted to determine whether there was any relationship between enrollment and other school characteristics (i.e., proportion of students who were economically disadvantaged, English language learners, or suffered from disabilities) and the proportion of teachers who were satisfied with the professional development

Table 9

Association between School Characteristics and Teacher Satisfaction with the Quantity and Quality of Professional Development Experiences that Addressed Specific Topics

Survey Item	% Students Econ. Disadvantaged		% Students English Language Learners		% Students with Disabilities	
	Pearson's <i>r</i>	<i>p</i>	Pearson's <i>r</i>	<i>p</i>	Pearson's <i>r</i>	<i>p</i>
General instructional strategies and practices	-.127	.628	-.166	.525	-.167	.521
Instructional strategies specific to the subject	.100	.703	-.168	.520	.093	.724
Using the curriculum provided for my classes	.233	.368	-.298	.245	.145	.578.
Covering standards within my instruction	.078	.766	-.044	.867	.218	.400
Addressing students' socio-emotional development needs	-.314	.220	-.108	.680	.015	.953
Working with students from diverse racial, ethnic, or cultural backgrounds	.154	.555	-.293	.253	.042	.874
Meeting the needs of all learners	.031	.905	-.321	.210	.059	.823
Address student behavioral issues	-.340	.182	-.075	.774	-.057	.827

experiences that were made available to them. A summary of the research questions and findings are presented in Table 10. In general, teachers reported high levels of satisfaction with the professional development experiences that were made available to them, in terms of the opportunities provided for reflection, collaboration, and feedback and addressing their unique/individual needs and teacher choice. When asked about whether teachers were satisfied with the quantity and quality of professional development experiences that addressed specific topics, many teachers reported that they were satisfied with both the quantity and quality. However, for the instructional capacities that required a better understanding of non-instructional topics, such as socio-emotional development, behavioral issues, and diversity, only about half of the teachers were fully satisfied, with significant proportions of teachers requesting higher quality professional development opportunities in these areas.

Table 10

Summary of Study Findings

Research Question	Finding
RQ1: To what extent do early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?	Hypothesis supported
RQ2: To what extent do early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?	Hypothesis partially supported
RQ3: Is there a correlation between teacher perceptions of professional development and school size?	Hypothesis unsupported
RQ4: Do teacher perceptions of professional development differ based on any teacher demographic characteristics, or student/teacher ratio?	Hypothesis partially supported

There were no significant associations between school enrollment (a.k.a., school size) and teacher perceptions of the context of professional development experiences made available to them; however, some school characteristics were significantly associated with a few of the teacher satisfaction questions related to designing instruction, or content. In this area there were three significant correlations when considering proportions of students who were English language learners or who had disabilities.

In the following chapter, these study findings will be discussed in detail and implications for the Tennessee Department of Education will be detailed, in terms of professional development planning and improvements. Limitations to this study will be reviewed and ideas for future research that builds on this study will be highlighted.

Chapter 5: Discussion, Conclusions, Recommendations

Interpretation of the Findings. The purpose of this quantitative study was to conduct a review of early childhood teachers' perceptions of the professional development opportunities they had been afforded. This chapter includes a discussion of the findings of this study as they relate to the characteristics of effective professional development, specifically that of early childhood professional development, and a summary of what possible implications these findings might have for school leaders as they plan for future early childhood professional development. Also included in this chapter is a discussion of how these findings relate to the conceptual frameworks that supported the research in this investigation. The chapter concludes with a discussion of the limitations of the study and recommendations for further research.

This chapter will discuss findings related to the following research questions:

1. To what extent do early childhood teachers perceive that their professional development includes opportunities for reflection, collaboration and feedback, addressing their unique/individual needs, and teacher choice regarding structure and content?
2. To what extent do early childhood teachers perceive that their professional development addresses the topics of student-teacher relationships, child development and behavior, readiness for upper grades, specific content and instruction, diversity and classroom environment?
3. Is there a correlation between teacher perceptions of professional development and school size?
4. Do teacher perceptions of professional development differ based on any school demographic characteristics?

Current research has identified several key characteristics of effective job-embedded professional development. As well, there are critical components of early childhood education which have been identified as necessary in order to provide young children with the skills necessary to build the kind of foundation which allows for success in later grades. The two conceptual frameworks undergirding this study include job-embedded professional development and the Interactive Model of Program Planning.

In recent years, much emphasis has been placed on teachers in the early grades (Kammerman & Gatenio-Gabel, 2007), and much emphasis has also been placed on the need for effective professional development to address the needs of teachers so that all students, particularly those in the primary grades, have access to a high-quality teacher (Martin, Kragler, & Frazier, 2017). As having a high-quality teacher has been shown to be one of the critical factors influencing student success, it is imperative that the professional development afforded early childhood teachers be sufficient to meet their needs and to increase their skills and knowledge in the key areas of early childhood development (Barnett, 2004; Phillipsen, Burchinal, Howes & Cryer, 1997; Whitebrook, 2003; Barber & Mourshed, 2007). Not only should early childhood professional development follow the guidelines for what constitutes effective professional development overall, but it should also address the specific and individual needs of early childhood teachers with regard to the development of young children.

In addition, it should be continually evaluated and assessed to ensure that the necessary learning is taking place (Caffarella, 2001; Zepeda, 2004). This continuous evaluation is one of the key elements of what Caffarella and Daffron refer to as the Interactive Model of Program Planning (2013). Caffarella (2001) stresses that professional development should be relevant and should address specific needs of teachers as well as gaps in their learning. The only way to

ascertain whether or not the training is meeting its objectives is to engage in ongoing evaluation. Sheridan, Edwards, et al. (2009) assert that there are still gaps in the research as far as the efficacy of early childhood professional development from the educator's perspective. They ask whether or not early childhood teachers perceive that they are getting what they need, as often as they need, in their specific areas of need in order to be high-quality teachers of young children. This study attempted to answer such questions.

Research Question 1. The quantitative study identified several findings which may be helpful for school leaders in planning effective professional development for early childhood educators. As one of the conceptual frameworks undergirding this study is that of job-embedded professional development, this study focused on the critical elements such professional development. According to current research, some of the key aspects that make for effective job-embedded professional development include time for teacher reflection (Zepeda, 2015; Hye-Su & Holst, 2018; Badri et al., 2016; Ernst, Clark, & Bowers, 2016; de Vries et al., 2013), collegial inquiry and collaboration (Brown, Collins, & Duguid, 1989; Driel & Berry, 2012; Zepeda & Mayers, 2013), feedback (diPaola & Hoy, 2014), and teacher voice in the planning process (Matherson & Windle, 2017; Gregson & Sturko, 2007). The first finding of this study relates to these key aspects by addressing Research Question 1. Of the eighteen schools which were included in this analysis, it appears that the majority of teachers feel that they have received sufficient professional development opportunities which include many of the key components identified in the research as those which are included in effective job-embedded professional development: time for reflection, collaboration and feedback, and teacher choice. In addition, many early childhood teachers in Tennessee schools feel that their unique or individual needs are being met. A majority of teachers selected "agree" or "strongly agree" for many of the

components of Research Question 1; however, there is one area which may warrant further review.

While 92% of the respondents agreed or strongly agreed that they had a group of colleagues with whom they regularly meet to reflect on potential improvements to instructional practice and that their school staff is a learning community in which ideas and suggestions for improvement or encouraged, 7% fewer respondents were satisfied with the survey item which asked about professional learning which is tailored to instructional materials used in class. This is still a generally large percentage of the early childhood teaching population who are satisfied in this area, although it does mean that a small percentage of the teachers are dissatisfied. When addressing specific learning suggestions tailored to individual needs, 83% of the survey respondents selected “agree” or “strongly agree.” Again, this is generally positive, but it leaves over 15% who disagreed with this survey item. The percentage dropped further when addressing collaborative planning time; therefore, this particular survey item might benefit from a deeper review.

When asked whether the collaborative planning time provided for teachers is sufficient, only 78% of the teachers in the eighteen representative schools on this survey chose either “agree” or “strongly agree”. While 78% is not a negative response, there remains at least 22% of the teachers who do not feel they have been provided sufficient collaborative planning time. Considering that collaboration is one of Zepeda’s (2012) four elements necessary for job-embedded professional development, this is fairly significant as it approaches almost one fourth of the teachers who appear to be asking for additional collaborative planning time. While the hypothesis for Research Question 1 is generally supported, further review may be warranted in this area.

Research Question 2. As Martin et al. (2014) express the importance of providing early childhood teachers with professional development that is responsive to new expectations and needs, the second research question attempted to ascertain whether or not early childhood teachers in the state of Tennessee receive professional development that addresses specific topics that researchers are discovering are critical in early childhood education. Research has shown that the following are all important components of a successful early childhood experience: student-teacher relationships (Rimm-Kaufman & Pianta, 2001; Dickinson & Caswell, 2007; Mashburn, 2008; Shonkoff & Phillips, 2000), child development and behavior (Dickinson & Brady, 2006; Neuman, Copple, & Bredekamp, 2000; Dickinson & Caswell, 2007), readiness for upper grades (Pianta & Le Paro, 2003; Stoltz et al., 2012; Isaacs, 2007; Ackerman & Barnett, 2005; Morrissey & Vinopal, 2018; Keys et al., 2013; Cunningham & Neuman, 2005), specific content and instruction (Martin et al., 2014; Neuman & Cunningham, 2009; Morrissey & Vinopal, 2018; Stoltz et al., 2012), diversity (Shonkoff & Phillips, 2000; Neuman & Cunningham, 2009), and classroom environment (Neuman, 2006; Shonkoff & Phillips, 2000; Stoltz et al., 2012).

When descriptive statistics were calculated for these items on the survey, a significant majority of teachers reported feeling satisfied that their professional development opportunities did in fact address these categories. For these questions, the Tennessee Educator Survey asked teachers to select one of the following categories: I need both more and higher-quality professional development in this area, I need more professional development in this area, I need higher quality professional development in this area, or I'm satisfied with both quality and amount of professional development received in this area. While the majority of teachers appear

to be satisfied with the professional development that they received in these specific categories, there were several areas in which the level of dissatisfaction approached 50%.

The two categories that appeared to have had the most satisfaction for early childhood teachers with regard to individual topics within their professional development opportunities include general instruction strategies and practices, with 77% reporting satisfaction, and covering standards within their instruction, which garnered 70% satisfaction. There were four specific characteristics that received satisfaction levels in the 60% range. Teachers appeared to be fairly satisfied, at a rate of 69%, with the professional development opportunities they were afforded which addressed working with students from diverse racial ethnic or cultural backgrounds. 67% of the teachers surveyed were satisfied with the curriculum provided for their classes, and 62% reported satisfaction with professional development that addressed instructional strategies specific to the subjects that they taught. However, only 61% were satisfied with the professional development they had been afforded which addressed students' socio-emotional and development needs. When considering the category which addressed meeting the needs of all learners and which addressed student behavioral issues, the percentage of teachers in the eighteen schools surveyed for this study dropped to percentages in the fifties.

Only 57% of these early learning educators felt satisfied with professional development that addressed meeting the needs of all of the learners in their classrooms, and only 52% were satisfied with the professional development opportunities that addressed student behavioral issues. This tells us that close to half of the teachers surveyed did not feel that their professional development opportunities addressed these two topics in a satisfactory manner. Another way to look at this would be to consider that 43% of the teachers surveyed in this study did not feel that the professional development opportunities they had received were satisfactory in providing the

tools and skills needed to meet the needs of all learners in their classrooms. In addition, 49% of the respondents in this study did not feel satisfied by the amount of professional development which addressed student behavioral issues. While no individual category within this Research Question 2 reached 50% or more for dissatisfaction, over forty percent of the teachers reported being dissatisfied in these two areas. This suggests that the hypothesis may be partially supported, and a closer examination into the professional development opportunities of these early childhood teachers which address meeting the needs of all learners and student behavioral issues should be undertaken.

Research Question 3. The next item considered in this study, Research Question 3, was to investigate a potential correlation between school size and teacher perceptions of professional development experience, particularly as they relate to opportunities for reflection, collaboration and feedback, individual needs, and teacher choice. While none of the correlations between school size and the proportion of teachers who agreed or agreed strongly with each item reached significance, some of the significance values suggest that with a larger sample size, it is likely we would see a positive correlation in two areas of the study.

The study reflected a positive correlation ($p = .069$) between school size and teachers who felt supported by colleagues with whom they regularly met to reflect on potential improvements to instructional practice. Teachers were more likely to feel this way in larger schools. Perhaps in a larger school, teachers felt that they had more colleagues who taught similar content or who had experienced similar problems within the school. This finding may warrant further study. On the other hand, there was a negative association between school size and teachers who feel that their staff is part of the learning community ($p = .178$). In other words, teachers at smaller schools were more likely to feel that their school was a learning community where their

suggestions for improvement were encouraged. Perhaps due to the smaller nature of the school, there is a closer relationship between school leaders and faculty. As such, teachers in smaller schools may feel more comfortable in making suggestions or may feel more encouraged to suggest solutions to problems. As both of these results were close to reaching significance level, it can be surmised that with a larger sample size, both of these topics may have reached significance level. Either way, it appears that further investigation may be warranted to look at what influence school size may have on teacher perception of these two variables. Additionally, considering that collegial support and being a part of a learning community are considered to be two of the key elements of effective job-embedded professional development, this may be an important finding in this study (DiPaola & Hoy, 2014; Brown, Collins, & Duguid, 1989).

The second part of Research Question 3 investigated the extent to which teachers were satisfied with specific topics in early childhood professional development. Again, this was reviewed with school size in mind, and again, none of these correlations reached a level of statistical significance. There was one negative association that approached significance with a significance level 0.124. This item related to working with students from diverse racial, ethnic, and cultural backgrounds. Teachers from smaller schools were more likely to be satisfied with this topic of professional development than were teachers at larger schools. Again, this may suggest that teachers at smaller schools have a closer relationship with their school leaders and are more likely to alert them to specific needs. Possibly, school leaders at smaller schools are more in tune with what teachers need with regard to student diversity. Further review on the topic of school size may shed light on the findings related to school size and teacher perceptions of professional development. Because none of the correlations in Research Question 3 reflected a statistically significant correlation, the hypothesis for Research Question 3 was unsupported.

Research Question 4: The fourth research question examined whether or not teacher satisfaction with the context, or structure, of professional development differed at all considering specific school demographics. There were no statistically significant correlations when considering economically disadvantaged students; however, there were significant findings when considering students with disabilities and students who identified as English language learners.

The first item of significance, related to the survey item which considered school staff as a learning community, had a significant negative correlation with the percentage of students who were identified as English language learners. It appears to reflect that teachers in schools with fewer English language learners are more in agreement that their school is a learning community in which ideas and suggestions for improvement are encouraged. There was also a significant negative correlation related to the topic of receiving specific learning suggestions tailored to the specific needs of teachers. Teachers were more likely to agree that their school professional development afforded them opportunities for learning suggestions tailored to their needs when the student body had fewer students who identified as English language learners. Finally, there was a significant negative correlation related to the topic of having a group of colleagues who were provided time to meet regularly to reflect on potential improvements to instructional practice. This negative correlation occurred in schools which had higher numbers of students with disabilities. In other words, teachers in schools with lower numbers of students with disabilities or more likely to agree at their school had a group of colleagues with whom they could meet to reflect on improvement. Again, considering how important the elements of collaboration and being a part of a learning community are to what constitutes job-embedded professional development, this is concerning and may deserve further review.

In addition to these three significant negative correlations, there were two additional negative correlations that approached significance levels, both of which related to the percentage of students who identified as English language learners. Again, teachers in schools with low numbers of English language Learners were more likely to agree that they have a group of colleagues with whom they regularly meet to reflect on potential improvements and more likely to agree that their collaborative planning time was sufficient.

Finally, to address the second part of Research Question 4, a second correlation analysis was repeated for survey items that related to specific components of effective professional development that addressed specific needs of teachers in an early childhood setting. None of the survey items were significantly correlated with proportions of students who are economically disadvantaged, with English language Learners, or with students who were identified as disabled. In other words, teachers were satisfied that the professional development they received related to the specific early learning characteristics were related to satisfaction with professional development offerings. The closest item approaching a level of significance, with a significance level of .182, was in the area of addressing student behavioral issues, which is not surprising considering that this particular component of early childhood education had earlier been identified as one with which teachers have the least amount of satisfaction.

Additionally, the results of Research Question 4 seem to suggest that when the proportion of economically disadvantaged students, English Language Learners, and students with disabilities is considered, teachers are less likely to be satisfied with the structure, or context, of the professional development than with the content. When a correlational analysis was conducted to review satisfaction levels of context, or structure, of professional development, three statistically significant correlations emerged. In contrast, when a second analysis was run

which considered the specific topics of professional development considering the same demographic information, no statistically significant correlations emerged. This may suggest that while teachers perceive the topics of professional development to be satisfactory, the context of professional development as it relates, specifically to English Language Learners, is found somewhat lacking.

Limitations of the Study. One of the obvious limitations of the study is that it only encompassed one year of the Tennessee Educator Survey (2018). A multi-year study may have shown more significant or meaningful findings related to the professional learning opportunities of early childhood educators in Tennessee. Secondly, the study was limited to one state. Perhaps if other states were included in the study, broader insight may have been gained. Finally, only schools whose participation rate reached fifty percent had their teachers' responses recorded for this study; therefore, early childhood educators who taught in a school which did not have fifty percent participation from its teachers did not have their perceptions included.

Recommendations.

While this study did seem to support the idea that early childhood teachers in Tennessee are fairly satisfied with the professional development opportunities they have been afforded, there were some findings that bear further investigation. The following are suggestions for additional research in the area of early childhood teachers' perceptions of professional development.

1. As the Tennessee Educator Survey is only given in the state of Tennessee, it might be difficult to replicate this exact study in other states; however, this study only covered a one year time period, and a multi-year study may provide a broader view of early childhood teachers' perceptions of professional development over a longer time period.

In addition, although the Tennessee Educator Survey is unique to the state of Tennessee, the same professional development questions could be posed to early childhood educators in other states, which may shed light on how a larger group of early childhood educators feel about the professional development they have been offered.

2. A study could be designed which targets specific findings from this project that relate to school size. For example, it appears that school size may have some influence on teachers' perceptions of particular aspects of professional development, namely that a school is considered a learning community and that teachers feel they have colleagues with whom they regularly discuss and solve problems. Further research could be conducted which would help clarify these findings. In addition, as this study appears to suggest that teachers in smaller schools feel more satisfied with professional development opportunities that address the needs of students from diverse backgrounds, a study might be designed that would consider school size and teachers' satisfaction with the support they receive in teaching a diverse student body.
3. Similarly, a study could be designed that investigates with a more specific focus the professional development needs of teachers whose classrooms include students who are identified as English Language learners or students with disabilities. A more in-depth, targeted study may help to ascertain what it is that teachers perceive to be lacking in support or professional training in these areas.
4. A qualitative, or mixed-method, study may help to clarify some of the findings of this study. For example, interviews, open-ended survey questions, and observations may help a researcher to discover in more detail what teachers feel they are missing from their professional development opportunities. With the ability to explain or elaborate on

several of these research questions, a more complete picture may be provided related to the critical aspects of effective job-embedded professional development for early childhood teachers.

5. Finally, it may make an interesting study to compare early childhood teachers' perceptions of professional development based on school type. As there were not enough, at this point, strictly early learning centers in the state of Tennessee for this researcher to use for comparison purposes, if the number of early learning centers continues to grow, it would be interesting to compare the teachers' perceptions of professional development at early learning centers with the perceptions of those early childhood teachers who teach in a PreK-1st or PreK-2nd environment.

Implications for Research.

One of the surprises to the researcher in the study is that the percentage of economically disadvantaged students did not seem to have any bearing on perceptions of professional development. As the state of Tennessee has long since been considered a high poverty state, 41st in the nation with approximately one out of every six residents living in poverty and almost one third of the children, perhaps teachers are accustomed to working with families from lower socioeconomic settings (WelfareInfo, 2019). Possibly more attention has been given to this problem considering Tennessee's history as a high poverty state.

The recent increase in the number of English language learners in the state, however, may be proving problematic for teachers who do not feel that they are getting the tools that they need to address these changing student demographics. Sugarman & Geary (2018) relate that the number of foreign-born immigrants in the state of Tennessee is double the national immigration rate. Furthermore, the growth rate of immigration in Tennessee was 169% for the period of

1990-2000 and 101% for the time period of 2001-2016. Perhaps teachers do not perceive that their professional development addresses their immigrant student population adequately enough.

Mitter and Putcha (2018), in their global research on training for early childhood professionals, share that local needs and contexts are critical for stakeholders to address in any training or professional development provided to their workforce. As it appears that there is a fairly significant number of early childhood educators in Tennessee who are dissatisfied with the professional development offered them in the area of English language learners, more research into this topic as a possible local need should be considered. The authors of this study point to the necessity for school leaders to be aware of the challenges faced by their early childhood workforce. If teachers are finding it challenging to effectively educate all learners in the classroom, specifically those who are new to the English language, it would benefit school leaders to engage in further research to specify exactly what teachers need in this area and how they might accommodate those needs via training. This current study supports research findings that effective professional development should be tailored to specific needs of the teachers (Zepeda, 2012; Martin, Kragler, et al., 2014). If early childhood teachers in Tennessee are reporting that they need further training in educating non-native English speakers, administrators would be wise to investigate these needs more fully.

In addition, there were significant findings in this study in teacher satisfaction with professional development related to the percentage of students with disabilities. Although there does not appear to be a significant rise in the number of disabled students in Tennessee schools (Tennessee Department of Education, n.d.b.), there may be several explanations as to why teachers do not feel fully equipped by their professional development activities. One possible reason might be that while the percentage of disabled students is not increasing overall, it could

be that more disabled students are being placed in general education classrooms. A deeper study into the trends regarding inclusion might shed some light on this possibility. Another possibility is that there may be different forms of disability, and while a teacher may have been trained to deal with one type, he or she may face having a student in the classroom with a different kind of disability entirely. Again, as one of the features of effective professional development is that it is targeted and specific (Zaslow, Tout, et al., 2010), more research should be conducted to determine what teachers specifically need in terms of students with disabilities. Based on the responses of the early childhood teachers in this study, it does appear that more training may be desired in this area, and this supports Caffarella and Daffron's (2013) assertion that there is a need for continuous evaluation of teachers' specific and individual needs and contexts.

The results of this study appear to reflect that the more disabled students or the more English language learners a school has, the less teachers feel that they have a group of colleagues with whom to confer and to solve problems and the less teachers feel that their school is a learning community. In their study for the Nebraska Center for Children, Youth, Families, and Schools, Sheridan, Edwards, et al., (2009) stressed the importance of collaborative partnerships and communities of practice. The authors feel that this sense of collegial partnership in solving common problems and sharing knowledge is one of the best ways to ensure that changes are sustained over time (p. 385). If early childhood teachers in Tennessee are reporting that they do not feel a sense of collegial inquiry in schools where there are larger numbers of English language learners and students with disabilities, it is incumbent on school leaders to pursue research into why this might be and how to address it.

Finally, there appears to be a need for more research into what teachers need in the area of social and emotional development, the development and behavior of young children, and

children from diverse backgrounds. While many teachers were satisfied with the professional development offered them in the area of academics, specifically content and curriculum, there were fewer teachers who agreed or strongly agreed that their professional development opportunities provided what they need to address behavior issues and to meet the needs of all learners in their classrooms, especially those from diverse backgrounds and those who may be behind in developmental milestones needed for school readiness in upper grades. As Mitter and Putcha (2018) share in their Early Childhood Workforce Initiative, teacher participation in targeted, specific training has been shown to “be a better predictor of program quality” than other factors (p. 11). As this current study did not provide insight into why teachers feel that they lack the appropriate training to effectively manage these topics, further research into these areas may provide school leaders with the information needed to develop targeted training activities that meet the needs of their early childhood educators.

Implications for Policy and Practice. This study of early childhood educators in Tennessee highlighted some possible implications for policy and practice related to professional development. While there was some good news, namely that teachers in Tennessee feel satisfied with many aspects of their professional development experiences, there are areas for improvement.

First, those in charge of creating development opportunities should pay closer attention to local needs and contexts and to the specific challenges faced by individual teachers. The annual Tennessee Educator Survey is a beneficial evaluation tool, but Zaslow, Tout, et al., (2010) also suggest that administrators and school leaders actually participate along with teachers in the professional development activities. In this way, both school leaders and teachers are learning

jointly, and administrators may gain a deeper understanding of how effectively teachers are learning and how well the training provided fits the needs of the teachers.

A second recommendation is that professional development should consist of the intensity and duration needed to ensure that the new material can be effectively transferred to the classroom (Zaslow, Tout, et al., 2010). If school leaders participate in the professional development, they may have a better frame of reference for the time needed to effectively apply the new knowledge to specific classroom issues. As providing time and support is a key component of job-embedded professional development (Zepeda, 1999; Hawley & Valli, 1999), the suggestion that administrators take part in teacher training is one that may increase the effectiveness of professional development.

Finally, because the current study reflected that fewer teachers were satisfied with the concept that their schools were learning communities and with the amount of time set aside to collaborate with colleagues, this should be an area of focus for school leaders. Research tells us that job-embedded professional development must address the specific needs of teachers and that collaboration is a key component as well (Lyons & Pinnell, 2001). Zepeda & Mayers (2013) remind us that “teachers do not thrive in isolation” (p. 12), and Abdal-Haqq (1996) asserts that teachers learn more easily when they feel a part of a larger learning community. Perhaps more focus should be on helping teachers to develop a sense of collegial inquiry. As these two elements (collaboration and learning communities) were repeatedly found lacking, especially when correlated with the proportion of English language learners and students with disabilities, this study points to the need for school leaders to consider providing more collaborative planning time and focusing on developing and sustaining learning communities within their schools. This may be especially important in schools with larger populations of students with specific needs.

Conclusion. To summarize, this quantitative correlational study examined the extent to which Early Childhood teachers in eighteen schools in Tennessee, ranging from Early Childhood centers to Pre-k through first grade primary schools to Pre-k through second grade elementary schools, were satisfied with the professional development experiences that were made available to them. The data collected were from two different sources: the Tennessee Board of Education administrative records and the Tennessee Educator Survey, both from the year 2018. A descriptive examination was provided which looked at survey items which addressed both particular components of effective professional development and critical components of early childhood education. Further, correlational studies were conducted to determine whether there was any relationship between the size of the school and teacher satisfaction and between school demographic features and teacher satisfaction.

In general, teachers reported high levels of satisfaction with the professional development experiences made available to them in terms of opportunities to reflect, to collaborate and receive feedback, to have a choice in their professional development activities, and in having professional development opportunities that addressed their unique or individual needs. The study reflects a possible need for more targeted professional development in non-instructional topics such as socio-emotional development, behavioral issues, and diversity. As well, the study uncovers some interesting findings related to school size and some demographic features. More research might be undertaken to address questions raised by the statistically significant findings in the relationship between school size, teacher satisfaction with features of job-embedded professional development, and the percentage of students who identified as English language learners and who identified as being disabled.

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Appendix A: Institutional Review Board Communication



Institutional Review Board
Office of Sponsored Programs
University of Memphis
315 Admin Bldg
Memphis, TN 38152-3370

Apr 7, 2017

PI Name: Jennie Gibson
Co-Investigators:
Advisor and/or Co-PI: Mary Boudreaux
Submission Type: Admin Withdrawal
Title: Instructional Improvement in Pre-K Schools
IRB ID: PRO-FY2017-114

From the information provided on your determination review request for "Instructional Improvement in Pre-K Schools", the IRB has determined that your activity does not meet the Office of Human Subjects Research Protections definition of human subjects research and 45 CFR part 46 does not apply.

This study does not require IRB approval nor review. Your determination will be administratively withdrawn from Cayuse IRB and you will receive an email similar to this correspondence from irb@memphis.edu. This submission will be archived in Cayuse IRB.

THANKS,
IRB Administrator
Research Compliance
Division of Research & Sponsored Programs
The University of Memphis

315 Administration Building

Memphis, TN 38152-3370

P: 901.678.2705

F: 901.678.4409

memphis.edu/rsp/compliance