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A Quantitative Comparative Analysis of Early Learning and Developmental Programs in High Poverty and Low Poverty Counties in Missouri

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by

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Abstract

The researcher completed a quantitative comparative content analysis of early childhood developmental programs in high-poverty and low-poverty counties across the state of Missouri. The researcher discussed the importance of early childhood programs in the longevity of academic, professional success and long-term health benefits. Although lawmakers, educators, parents and policy makers emphasized the immense importance of early childhood education, the state of Missouri had not completed an evaluation of early childhood developmental programs for over 15 years. The last study (Fuger et al., 2003), completed in 2003, only evaluated early childhood programs described as part of the state's Missouri Preschool Project (MPP). The research results stated the state of Missouri had not completed a study evaluating all early childhood programs in the state.

The researcher examined secondary data, specifically licensing reports from online, public records through the Missouri Department of Health and Senior Services (DHSS) website, as well as programing costs, curriculum, and accreditation through brief interviews of administrators employed by various child care centers and public school early childhood preschool programs. The purpose of the study was to discover if inequity occurred in facilities located in high-poverty and low-poverty counties. The researcher explored whether high-poverty facilities had more licensing violations than those facilities in low-poverty areas and examined the type of violations and assessed differences in the number of violation types. After researching early childhood curriculum endorsed by the state of Missouri, the researcher examined the type of curriculums used by each facility to determine the quality of the curriculum. The

researcher surveyed the cost differences of facilities and the affordability of programs, based on average income. The researcher also evaluated the overall quality of programs, based on the secondary data.

In summary, the researcher conducted the study to examine differences between the quality of early learning and developmental programs in high and low poverty counties around the state of Missouri. The researcher determined the quality of a program based on the percentage of licensing violations, type of violations, curricula used, if a center held extra accreditation, and the cost per week. The results of the study were mixed.

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Chapter One: Introduction

Introduction

A common goal of educational leaders at the time of this study, was to develop and design schools focused on developing life-long learners. Leaders looked at what age formal schooling began, and how schools were designed to maximize learning. Leaders also addressed teacher qualification, standards and common curriculum, regardless of geography, and assessments.

Educational accountability assessing all formal schooling, Pre-K through 12+, was described as a dominant force driving educational policy in the 21st century and in 2009, leaders from 48 states launched the Common Core State Standards as a means of measuring academic progress and preparation for graduation. "Designed through collaboration among teachers, school chiefs, administrators, and other experts, the standards provide a clear and consistent framework for educators" (National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA&CCSS], 2018, p. 1). As a result, state educators started to conduct a thorough curriculum review to examine appropriate alignment of then-current practices with the new Common Core State Standards. Therefore, "preschool and early-childhood educators were determining how to balance the common core standards' emphasis on increasing and measuring academic rigor with research findings on young children's developmental needs" (Zubrzycki, 2011, p. 1).

Many researchers agreed on the importance of early childhood programs in preparing a child for kindergarten readiness and academic success (Ackerman & Barnett, 2005; The Annie E. Casey Foundation, 2013; Porter, 2013; Rafoth, Buchenauer, Kolb-

Crissman, & Halko, 2004). In 2012, the National Institute for Early Education Research (NIEER) and Rutgers Graduate School of Education published a study comparing the state of preschools across the United States. While examining preschool programs in Missouri, the study revealed although Missouri implemented the Missouri Preschool Project (MPP) since 1998, under a specific criteria, as of 2012, the most recent evaluation of the program occurred in 2003 (National Institute for Early Education Research [NIEER] & Rutgers, 2014a, 2014b).

Rationale of the Study

The review of literature focused on early childhood education and demonstrated a gap in research evaluating and comparing Missouri early learning and developmental programs. The last study occurred 15 years previous to this writing and only evaluated programs included in the Missouri Preschool Program (MPP) (Fuger et al**.,** 2003, pg. 1). Researchers evaluated only a limited number of early learning and developmental programs, because the study only examined programs included in the MPP. According to the study, "Research indicates a safe, well supervised program with qualified staff utilizing developmentally appropriate practices, can create an enriching environment that will greatly enhance the social, emotional, cognitive, and physical development of children ages six weeks to kindergarten entry" (Missouri Department of Elementary and Secondary Education [MODESE], 2018, p. 1). Therefore, the researcher believed the state of Missouri needed a comprehensive evaluation tool to measure the quality of all early learning and developmental programs, not just the MPP schools.

Purpose of Study

The purpose of the study was to complete a quantitative comparative content analysis of early learning and development programs in high-poverty and low-poverty counties in Missouri. The researcher sorted the counties of Missouri by poverty levels using the data found in the Missourians to End Poverty (2016) study and Missouri Census data (2015). Secondary data included the following variables: the number of licensed programs by the Missouri Health and Senior Services Department in high poverty/low poverty counties, the number of license violations in high poverty/low poverty early learning and developmental programs, type of license violations in high poverty/low poverty early learning and developmental programs, type of curriculum, cost per pupil, and the accreditation or lack thereof of the early learning and development programs. The researcher analyzed the data using a *z*-test for difference of two proportions, *t*-test for difference of two independent means, and a Chi-square goodness-of-fit-test for differences and tested each null hypothesis. The researcher intended to add to the then-current body of literature on early childhood education and identify the availability of high-quality programs in high-poverty and low-poverty counties across the state of Missouri. The researcher also intended to discern if programmatic inequality existed between high poverty and low poverty early learning and developmental programs in the state of Missouri. The study provided the Missouri Department of Elementary and Secondary Education (MODESE) findings to evaluate public and private early learning and developmental programs.

Research Methodology and Hypotheses

In order to address the purpose of the study, the researcher chose a quantitative comparative content analysis of early childhood developmental programs in high-poverty and low poverty counties across the state of Missouri. The researcher developed the following hypotheses to address the study:

Hypothesis 1: There is a difference in the percentage of licensed early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 2: There is a difference in the percentage of license violations in early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 3: There is a difference in the type of license violations of early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 4: There is a difference in the number of high poverty/low poverty early learning and developmental programs in the state of Missouri that use a state approved curricula.

Hypothesis 5: There is a difference in the cost of early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Hypothesis 6: There is a difference in the number of accredited early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Study Limitations

This research study included several limitations. One limitation was the scope of the study. Originally the researcher wanted to compare public preschool programs, not a part of the MPP, to discern a difference between those programs being monitored by the state on a regular basis and those not being monitored. The researcher sent out surveys to several school districts identified as high/low poverty. Unfortunately, the researcher encountered a low response rate. Therefore, data collection was limited to secondary data from early learning and developmental programs which narrowed the scope of the study. At the time of the study the state of Missouri only tracked limited information on early learning public programs included within the MPP.

Another limitation to the study was self- reported data by early learning centers. The validity for most of the data collected was limited to what centers self-reported to the Child Care Aware agency, or information published to the public by the centers themselves. Some early childhood centers would not share data related to cost, curriculum, and accreditation.

Definition of Terms

Approved early childhood curriculum: Four early childhood curriculums approved by the Missouri Department of Education, which included; Creative Curriculum, Emerging Language & Literacy Curriculum (ELLC), High/Scope, and Project Construct (MODESE, n.d.b., p. 1)

Child Care Center: Child care services provided for a fee in a non-residential facility (Child Care Aware of America, 2018).

Center-Based Program: "All early childhood educational services to children birth through five years, not yet in kindergarten, provided by an organization at a single location" (National Survey of Early Care and Education, 2014, p.1).

Common Core State Standards: "The knowledge and skills students should gain throughout their K-12 education in order to graduate high school prepared to succeed in entry-level careers, introductory academic college courses, and workforce training programs" (NGA&CCSS, 2018 p. 1).

Early Childhood Education: A broad term for educational programs that serviced young children birth-kindergarten that supported development and learning (Akabari, McCuaig, 2014; United Nations International Children's Emergency Fund [UNICEF], 2012).

Early Learning and Development Program:

Any (a) State-licensed or State-regulated program or provider, regardless of setting or funding source, that provides early care and education for children from birth to kindergarten entry, including, but not limited to, programs operated by child care centers and in family child care homes; (b) preschool programs funded by the Federal government, State or local educational agencies (including Individuals with Disabilities Education Act-funded programs) (Head Start Early Childhood Learning and Knowledge Center, 2018, p. 1)

Early Head Start: "Intensive comprehensive child development and family support services to low-income infants and toddlers and their families, and to pregnant women and their families" (Head Start Early Childhood Learning and Knowledge Center, 2018, p. 1).

Exempt: "Any person who is caring for four or fewer unrelated children is not required to be licensed" (Missouri Department of Health and Senior Services [DHSS], n.d., p. 1)

Head Start: "Federal program that promotes the school readiness of children from birth to age five from low-income families by enhancing their cognitive, social, and emotional development" (U.S. Department of Health and Human Services [USDHHS], n.d., p. 1).

High poverty counties: Geographical areas in Missouri in which 25% or more of the individuals live at or below 100% of the federal poverty level, as defined by Missourians to End Poverty (2016, p. 2).

In Home Family Child Care: Child care services provided for a fee in a residential setting (Child Care Aware of America, 2018).

License Exempt: "Programs such as nursery schools and programs operated under the exclusive control of a religious organization are exempt from licensing" (DHSS, n.d., p. 1).

Licensing Regulations: Additionally, researcher reviewed the regulations for each center identified in the study (See Table 1).

Low poverty counties: Geographical areas in Missouri in which less than 10% of the individuals live at or below 100% of the federal poverty level as defined by Missourians to End Poverty (2016, p. 2)

Table 1

Licensing Rules for Group Child Care Homes and Child Care Centers in Missouri

19 CSR 30-62.032 Organization and Administration
19 CSR 30-62.042 Initial Licensing Information
19 CSR 30-62.052 Licensing Renewal
19 CSR 30-62.082 Physical Requirement of Group Day Care Homes and Day Care Centers
19 CSR 30-62.087 Fire Safety
19 CSR 30-62.090 Disaster and Emergency Preparedness
19 CSR 30-62.092 Furniture, Equipment, and Materials
19 CSR 30-62.102 Personnel
19 CSR 30-62.112 Staff/Child Ratios
19 CSR 30-62.122 Medical Examination Reports
19 CSR 30-62.132 Admission Policies and Procedures
19 CSR 30-62.142 Nighttime Care
19 CSR 30-62.152 Hourly Care Facilities
19 CSR 30-62.162 Overlap Care of Children
19 CSR 30-62.172 Emergency School Closings
19 CSR 30-62.182 Child Care Programs
19 CSR 30-62.192 Health Care
19 CSR 30-62.202 Nutrition and Food Service
19 CSR 30-62.212 Transportation and Field Trips
19 CSR 30-62.22 Records and Reports
19 CSR 30-62.230 Variance Request

Missouri early learning standards: "The Missouri Department of Elementary and Secondary Education, along with a broad-based group of individuals, whose backgrounds were representative of the early childhood community in Missouri, developed a set of standards of what most children should know and be able to do by the time they enter kindergarten" (MODESE), n.d.b., p. 1).

Missouri Preschool Program: "A competitive bid or grant opportunity to create or expand high-quality early care and education programs for children who are one or two years from kindergarten eligibility" (MODESE, n.d.c., p. 1).

Non-relative Child Care Provider: For the purpose of this study, a non-relative child care provider is an adult, unrelated to a child or their parents, that provides child care service.

Preschool Programs: "Early-childhood educational class for 3- and 4-year-olds" (Kanter, 2007, p. 1).

Pre-K: A class for 4 to 5-year-olds that engages in pre-kindergarten readiness activities (Bright Horizons Family Solutions, 2018).

Programmatic inequity:

School programs may be structured in ways that are perceived to be unfair because they contribute to inequitable or unequal educational results for some students. For example, students of color tend, on average, to be disproportionately represented in lower-level classes with lower academic expectations (and possibly lower-quality teaching), which can give rise to achievement gaps or 'cycles of low expectation' in which stereotypes about the academic performance of minorities are reinforced and perpetuated because they are held to lower academic

standards or taught less than their peers. (The Great Schools Partnership, 2016, p. 1)

State Licensed Program: For the purpose of this study, a State Licensed Program is any early childhood program that was regulated and evaluated by a state agency.

The Quality Rating and Improvement System: A tool or framework used to evaluate the quality of early care and education (ECE), inform parents, and help improve programs (Cannon, Zellman, Karoly, Schwartz, 2017; Child Care Aware of America, 2018; Cortes & Hallam, 2016).

Summary

Recognition of the importance and support for early childhood education was universally acknowledged by educational leaders, policymakers, and parents. Much research was conducted on the importance of early childhood programs in preparing a child for kindergarten readiness and academic success (Ackerman & Barnett, 2005; The Annie E. Casey Foundation, 2013; Porter, 2013; Rafoth et al., 2004). Due to the limited research and data collection on early learning and developmental programs in the state of Missouri the researcher examined possible differences between programs in high-poverty and low-poverty Missouri counties. The researcher focused the study on early learning centers in high poverty and low poverty counties in Missouri by examining licensing reports, curriculum used, accreditation, and cost factors.

Chapter One provided an introduction to the study and the methodology used to conduct the research, as well as the importance of early learning and developmental

programs. The researcher discussed a gap in the research along with study imitations. Definitions of terms related to the study were defined.

Chapter Two reviews the history of early childhood education and growth in America, as well as historical studies conducted on the importance of early learning programs and the long term outcomes for children of poverty. The researcher also reviewed information on different early childhood curricula and then-current practices in the state of Missouri. Quality rating systems used to evaluate early childhood programs were also examined.

Chapter Three discusses the research method, design, and the collection of data. Chapters Four and Five review the data findings, identify implications for the state of Missouri and children living in poverty. The researcher also discussed potential recommandations for future studies, which would conduct a broader examination of early childhood programs across the state of Missouri.

Chapter Two: Review of Literature

Introduction

At the time of this writing, early childhood education was a growing topic of formal schooling throughout the 21st century. With the launching of Common Core in 2009, early childhood educators began reevaluating what children in pre-K should be taught to be prepared for kindergarten. Thirteen related topics were reviewed in this chapter. The first topic, History of Early Childhood Education focused on the development of early childhood education from the beginning to the then-current state; Missouri Early Childhood Education and the programs available to families with children aged zero to four. In the next topic, the researcher also discussed the benefits of early childhood education and the relationship between poverty and the young child. Other important topics reviewed in Chapter Two include: the 'Fade Out effect,' 'Common Core and Race to the Top,' 'quality early childhood education,' cost, licensing and regulations, early childhood organizations, accreditation and current status at the time of this writing.

History of Early Childhood Education

Over the years, education philosophers studied and wrote about the importance of education. Structured education for the young had been around since the ancient world; Egyptians used hieroglyphics while the Romans and Greeks used tablets for reading and writing. In the age of antiquity, "family was the center of the child's early education" (Lascarides, & Hintiz, 2011, p. 35). "The Romans opened schools to teach children rudimentary skills and socialization" ("A Beautiful Timeline," 2015, p. 1). By the Middle Ages the Roman School system was gone (Guisepi, n.d.). "The invading Germanic tribes that moved into the civilized world of the West and all but destroyed ancient culture,

provided virtually no formal education for their young" (Guisepi, n.d., p. 3). Toward the end of the Middle Ages the first institutions were born for the study of art, law, medicine, and theology in France, England, and Italy. During the Renaissance there was a rise in Humanism and an emphasis on the study of humanities ("A Beautiful Timeline," 2015).

In the 17th century, European protestant ministers, including Bishop Johann Amos Comenius, as well as philosophers John Locke and Jean-Jacques Rousseau, advocated various approaches to teaching and child rearing. Comenius "provided the first outline of a modern system of universal education" (as cited in Beatty, 1995, p. 3), and while Comenius believed children should be educated together he opposed a formal education for those under six. Grant (2004) noted the Comenius ideas "helped shape the education systems of Holland, Sweden, Prussia, Scotland, and Puritan New England" (p. 1). In 1650, Comenius published *The School of Infancy* and prescribed in detail the role of parents in educating children (Comenius, 1896). Comenius believed young children should be educated in a naturalistic manner implemented through individualized education, because of a child's developmental milestones.

In 1693, Locke published *Some Thoughts Concerning Education,* and the book "remains a standard source in the philosophy of education" (as cited in Rogers, 2018, p. 8). Locke, a medical doctor, philosopher, and educator recommended all children be schooled at home. Beatty (1995), the author of *Preschool Education in America*, examined several philosophers who molded early education, as it existed at the time of this writing. Beatty (1995) stated, "Locke did not think all children were the same and was not proposing that all children be molded in the same way or together" (p. 5). Locke warned against educating students together and proposed children should be educated at

home by parents and a tutor to avoid learning immoral or bad habits from other children. Locke, a strong believer in learning through play, believed formal reading instruction should begin when a child learned to talk (Locke, 2001).

Like Locke, Rousseau also believed in educating children through play. Rousseau (1888) however disagreed with teaching young children to read and write and believed parents should wait until young children showed signs of wanting to read. Both Locke's and Rousseau's books were models for European parents and educators. According to Beatty (1995), "Rousseau's book, *Emile*, was one of the most radical books ever written on education and child rearing" (p. 7). Rousseau's beliefs were the opposite of traditional education practices:

> Apparent quickness in learning is the ruin of children. We do not consider that this very quickness proves that they are learning nothing. Their smooth and polished brain reflects like a mirror the objects presented to it, but nothing abides there, nothing penetrates it. (Rousseau, 1888, p. 54)

Koops (2012) stated Rousseau believed "knowledge must spring from child's own explorations, from hands-on experience, preferably not from brooks" (p. 50).

Pestalozzi followed Rousseau's ideas on education and experimented with his own son using Rousseau's models. By age 11 Pestalozzi's son could still not read; yet, "Pestalozzi professed to be untroubled by the boy's learning problems, but, like many other parents, he came to doubt the applicability of Rousseau to academic learning and later sent his son to boarding school" (Beatty, 1995, p. 10). Pestalozzi went on to write several books on education while developing a homelike model of schools.

In the early 1600s, colonists in America began establishing the first public schools. At the time, education consisted of "informal systems of teaching reading and writing, often as part of religious instruction and predominately limited to the upper class" (Epicenter, 2011 p. 1). In Philadelphia in 1689, a Quaker by the name of William Penn started an American school where instruction included teaching children of different ethnic groups and socioeconomic status how to read. The "Friends Schools" was "an advanced idea, for the time, male and female students were offered the same instruction" (Hinitz, 2013, p. 9). The Quakers mainly focused on teaching children to read scriptures.

In 1647, the General Court of Massachusetts Bay Colony established the Old Deluder Satan Act, a requirement for every town who had a minimum of 50 families, to develop an elementary school; towns with 100 or more families had to provide grammar schools (Common School Movement, n.d.; Epicenter, 2011; Hazlett, 2011; "Historical Timeline," 2006). In 1635, civic leaders in Boston established the first public secondary school (Epicenter, 2011). Education and government leaders in Massachusetts developed guidelines regarding who should receive schooling.

"By the second half of the 17th century, the public school system in Massachusetts had become a model of education for other colonies" (Epicenter, 2011, p. 1). The 1800s brought about a revolution of school systems. Brouillette (1999), in a study of New England's government schools stated, "In 1818, Boston became the first American city to have a complete government-financed school system from the primary to the secondary level" (p. 2). By the time the Civil War began most of the Northeast and Midwestern states organized school systems (Hinitz, 2013). In 1834 Pennsylvania

adopted the 'Free School Act' which created a general state system of common schools (Pennsylvania State Education Association [PSEA], 2016). The Quakers felt a common school system would upset religious teachings (The Pennsylvania School System, n.d.). "Up until the mid-1800's most schools were private or religiously oriented" (Hinitz, 2013, p. 10). The 'Free School Act' brought about financial difficulty for those Quakers who wanted to send children to 'Friends Schools,' but were strapped with paying school taxes and tuition. The Quakers oversaw many of the public schools in Pennsylvania (Hinitz, 2013).

Prior to the 1800s students who attended school were primarily educated in a one-room schoolhouse. Horace Mann, introduced 'age grading' of students in Massachusetts in 1848; the method proved to be successful, and quickly became the norm in public education across the country (Education News, 2013). "His [Mann's] influence soon spread beyond Massachusetts as more states took up the idea of universal schooling" (Levin, n.d.). Cahan (1989), in a study titled, A History of U.S. Preschool Care and Education for the Poor, 1820-1965, stated, "Preschool education arrived in Scotland in 1816 when Robert Owen, founder of the British infant school movement and manager of the New Lanark Cotton Spinning Mills, opened an infant school for children whose parents work in the mills" (p. 9). "Owen's vision for the school was drawn from reform-minded educators such as the Swiss education reformer Johann Pestalozzi, who, like Owen, sought to use education to help the poor" (Prochner, Cleghorn, & Drefs, 2015, p. 2). "Pestalozzi's pedagogy influenced education in New England" (Beatty, 1995, p. 20), leading to the opening of infant schools across America. European influences began showing up in the way infants were educated with two different schools of thought on the

education of young children. Cahan (1989) stated, “Formed by a group of evangelical women interested in providing religious instruction, preschool education, and day care for young children of the urban poor, the Infant School Society of Boston was founded in 1828” (p. 11). Infant schools were small schools and serviced children between the ages of four and seven while the second school of thought was family schools. Family schools were based out of the home where mothers took on the role of teacher (Beatty, 1995). As the movement grew, some states began to incorporate infant school into the public system. “Americans in the early nineteenth century were discovering early childhood and finding that infancy, as this period of life was still called, was a critically important stage for education, though of a kind different from traditional schooling” (Beatty, 1995, p. 34).

About the time Americans debated over the correct way to educate the young, a movement was beginning in Germany by a man named Friedrich Froebel. “In 1837 Friedrich Froebel founded a school named ‘kindergarten,’ or ‘the children’s garden’ (Early Childhood Today, 2000, p. 1). Froebel believed in teaching through a hands-on approach, where the students guided learning by interests. “Froebelism began in the United States as a German cultural movement, Americans then took up the kindergarten as an educational reform” (Beatty, 1995, p. 52). Watertown, Wisconsin, was home to the first kindergarten in the United States. In the late 1800s Blow and Harris introduced kindergarten to the St. Louis public school system (The State Historical Society of Missouri, 2018).

Early childhood programs or preschools began in the early 1900s as nursery schools. Margaret and Rachel McMillan began the preschool movement by “focusing first on health and hygiene and then on education” (Liebovich, 2016, p. 92). Margret

McMillan coined the term nursery school. McMillan defined nursery school as "a method for educating young children that combined daily inspection, outdoor learning, play, and healthy, balanced nutrition" (Liebovich, 2016, p. 93). About the time, Margaret McMillan established nursery schools in Britain, efforts for early childhood education took hold in America. "In 1906, Cora Bussey Hills began organizing efforts that would lead to the creation of the Iowa Child Welfare Research Station at the State University of Iowa in Iowa City" (Beatty, 1995, p. 134). Another famous pioneer in American early childhood education was Abigail Eliot. "Based on her training by McMillan, Eliot was one of the first women to create a nursery school for young children in the United States" (Liebovich, 2016, p. 92). Through the years, the philosophy of nursery schools evolved to what educators referred to as early childhood education or early learning and developmental programs.

Two other theorists that contributed to the early childhood discussion were Vygotsky and Piaget. Vygotsky and Piaget developed constructivism theories in cognitive development and learning (Caruso, 2018). According to Caruso (2018), "Piaget's theory is guided by assumptions of how learners interact with knowledge. Vygotsky maintained that speech is a major psychological tool in the child's development of thinking" (p. 2).

Piaget, born in 1896, in Neuchatel, Switzerland, conducted research in developmental psychology (Jean Piaget Society, 2017, p. 1). "Piaget (1936) was the first psychologist to make a systematic study of cognitive development" (McLeod, 2018, p. 1). Piaget developed a theory of the stages of cognitive development that children moved through as they acquired knowledge (as cited in Cherry, 2018). To assist in

understanding the stages of Cognitive Development, the researcher developed an illustration of the stages (Figure 1)

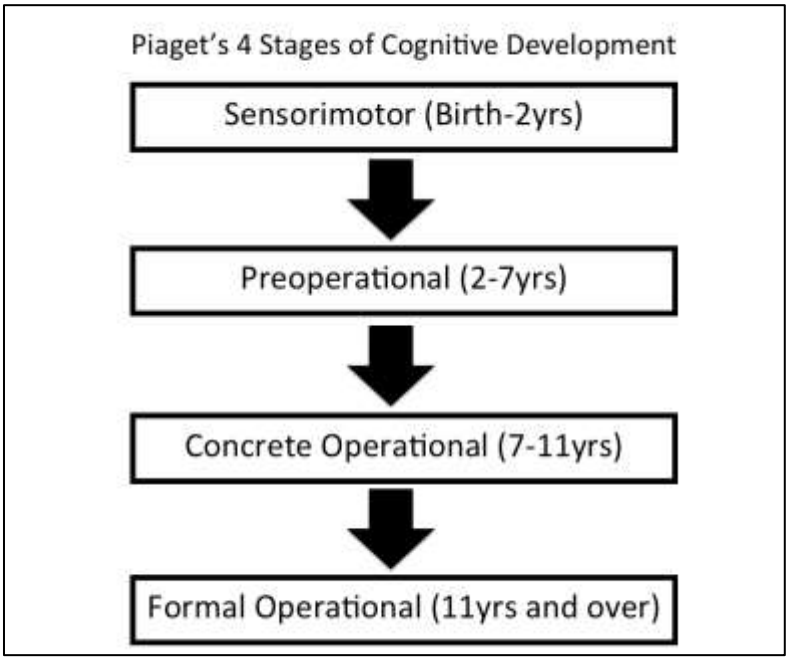

Figure 1. Stages of Cognitive Development

The four stages included: sensorimotor, development focused on mental representation or motor skills; preoperational, reasoning is developed; concrete operational development of logic and understanding; and formal operational development of logical reasoning and understanding of abstract concepts (as cited in McLeod, 2018).

Vygotsky, born in 1896, in Russia, was a psychologist, known for his sociocultural theory (Cherry, 2018). In 1934, Vygotsky studied Piaget's works, "Vygotsky took charge of the translations of Piaget's first two monographs and organized a series of control experiments" (Kohler, 2008). While Vygotsky agreed with some of Piaget's theories he disagreed with Piaget on egocentric thinking from egocentric speech, because Vygotsky believed Piaget did not understand a child's self-talk strategy (Kohler,

2008). “Vygotsky places more (and different) emphasis on the role of language in cognitive development” (as cited by Caruso, 2017).

Vygotsky, began researching psychology at the Institute of Psychology, in Moscow, in 1924 (Cherry, 2018, p. 2). Vygotsky, developed a theory of cognitive development that remerged in the late 1970s, long after his death (Clara, 2017, p. 50). “Vygotsky’s ideas mainly became known in the field through the 1978 volume, *Mind in Society,* a compilation of several of his writings selected and edited by Cole, Scribner, John-Steiner, and Souberman”(as cited by Clara, 2017).

His theory was based on six major assumptions: children develop through conversation, the first few years of a child’s life is critical for language development, complex mental activities and social activities go together, difficult tasks can be accomplished with help, cognitive development growth occurs through challenging tasks, and play allows cognitive stretch in children. (Caruso, 2018). Vygotsky also proposed a concept known as the Zone of Proximal Development (ZPD). “The ZPD is defined as the difference between what a student is capable of doing independently, and what they can do with some help from a more capable other” (Danish, Saleh, Andrade, Bryan, 2016, p. 6). The ZPD was also referred to as scaffolding, or what the child could do with help.

The review of the historical roots of early childhood education demonstrated the vast and varied initiatives that addressed the education and schooling of young children (Beatty, 1995; Comenius, 1896; Liebovich, 2016; Prochner et al., 2015; Rogers, 2018). The 17th Century began the discussion and developmental philosophies for educating the young child. In addition to the formal and informal approaches to teaching the very young, the attention to the naturalistic and experiential approaches to learning emerged as

the dominant philosophy of early childhood education. Growth and development of early childhood education in the early 17th Century gave rise to early childhood education that existed at the time of this writing.

Early Childhood Education Today

Early childhood education in the United States during the 21st century became complex. "The current system is a mix of public and private provision for services, and, in many cases, multiple funding sources may support the individual care of children, even within the same preschools or classrooms" (Chaudry & Datta, 2017). Early Childhood programs included public pre-kindergarten, Head Start programs, federal and state subsidized child care, and center-based programs. Other programs included religious or home based programs. As of 2014, there were approximately 129,000 center-based programs in the United States (National Survey of Early Care and Education (NSECE), 2014, p. 1). "In 2014, 4.7 million three- and four-year-old children attended preschool, with 2.0 million in private preschool and 2.7 million in publicly funded center-based preschool" (Chaudry & Datta, 2017 p. 5).

Missouri Early Childhood Education

On June 17, 1998, the Missouri General Assembly passed Bill 1519 (HB1519) and Governor Ashcroft signed the Bill into law. HB1519 revised laws, which included the distribution of gaming commission funds (National Guard, Veterans, & Gaming Commission Funds, 1998). HB1519 required the Department of Elementary and Secondary Education and the Department of Social Services to initiate and conduct a four-year study to evaluate the impact of Missouri's early childhood program, MPP (National Guard, Veterans, & Gaming Commission Funds, 1998). In July of 2003 the

Department of Elementary and Secondary Education, University of Missouri-Kansas City Institute for Human Development and the University of Missouri-Columbia Center for Family Policy and Research released findings from the four-year study. Key findings concluded early childhood centers included in the MPP made gains in improvement, increased quality in relationships, and performed higher on developmental assessments (Thornburg, Mayfield, Watson, Mathews, & Fuger, 2003). The authors of the study also discovered a correlation between quality programs and teacher degrees, teacher retention and wages, lack of professional development, and cost factors (Thornburg et al., 2003). Researchers made several policy recommendations: funding to support program quality improvement, expansion to service more children, educational support for early childhood teachers, family care programs, and wage supplements based on education levels (Thornburg et al., 2003). The study, conducted over 15 years ago was the one and only study conducted evaluating the MPP (J. Ralston & K. Thornburg, personal communication, July 20, 2018).

As of 2017, Missouri had a population of approximately 6,113,532 with 374,479 children between the ages of zero and five years (U.S. Census Bureau, 2018, p. 1). Out of the total population mentioned above, 170,264 of the families lived in poverty in which 94,465 were children under the age of five years (Child Care Aware of Missouri, 2017b, p. 1). Missouri had a range of early childhood and developmental programs available for families living in and out of poverty, such as licensed child care programs, which included family home, group home care, and child care centers. Licensed-exempt child care and exempt child care programs were also available (Child Care Aware of Missouri, 2017b). In a 2016 study published by the Office of Child Care (OCC, 2016), 6,133

children in Missouri received care in settings that were legally operating without regulation.

The state of Missouri also participated in First Steps and Head Start. "First Steps is Missouri's Early Intervention system that provides services to families with children, birth to three years of age, with disabilities or developmental delays" (Missouri First Steps, 2010, p. 1). Head Start, another early intervention program, "[was] a national child development program for children from birth to age 5, which provides services to promote academic, social and emotional development, as well as providing social, health and nutrition services for income-eligible families" (Missouri Head Start, n.d., p. 1). Both programs were early intervention programs that provided assistance to families with young children.

Missouri developed early childhood programs addressing the whole child. The emphasis was academics and included the social emotional and cognitive development of each child. In addition, the formal programs, like Head Start, demonstrated the role of support services in the area of health and nutrition.

Benefits of Early Childhood Education

Benefits of early childhood education were noted in many articles and studies over the years, describing both long-term and short-term benefits. Several longitudinal studies were conducted to track the benefits of an early childhood education for students at risk (Campbell et al., 2012; Campbell, Pungello, Miller-Johnson, Ramey, & Sparling, 2002; Sparling, n.d.). Some of the famous studies included The Carolina Abecedarian Project, the High/Scope Perry Preschool Study (PPS), Brookline Early Educational Project (BEEP), and the Chicago Longitudinal Study (CLS) (Campbell et al., 2002).

The Abecedarian Study occurred from 1972 until 2009 (Sparling, n.d.) and administered to children from poor and at risk families. The study tracked the benefits of early childhood education through a series of randomized controlled trials (Campbell et al., 2002; Campbell et al., 2012; Sparling, n.d.). Students received intensive early educational interventions. According to Sparling (n.d.), the Abecedarian approach was comprised of "learning games, conversational reading, enriched caregiving, and a comprehensive conceptual framework" (p. 4). Students were observed, beginning at age five and to well into the mid-30s (The Carolina Abecedarian Project, n.d.). Campbell, Pungello, Miller-Johnson, Ramey, and Sparling (2002) stated, "The pre-school treatment group earned significantly higher scores on intellectual and academic measures as young adults, attained significantly more years of total education, were more likely to attend a 4-year college and showed a reduction in teenaged pregnancy" (p. 42). In 2014, researchers on the Carolina Abecedarian Project released new findings with positive health implications. "The project's new study in Science reports that children who received high-quality early care and education from birth until age 5 enjoy better physical health in their mid-30s than peers who did not attend the child care-based program" (The Carolina Abecedarian Project, n.d., p. 2).

Another famous longitudinal study, the PPS, similar to the Carolina Abecedarian study, included children from low-income backgrounds (Campbell et al., 2012). Schweinhart et al. (2005) summarized, "The High/Scope Perry Preschool study is a scientific experiment that has identified both the short and long term effects of a high-quality preschool education program for young children living in poverty" (p. 1). Students who were in the program had a higher percentage of graduation rates, less grade

repetition, and scored higher on achievement tests (Schweinhart et al., 2005). The PPS resulted in adults having higher earnings, steady employment, fewer criminal activities, and were more likely to be high school graduates than those who did not attend preschool. According to Campbell et al. (2012), "The findings from this program have heavily influenced research and policy in the field of early childhood educational intervention for poor children" (p. 3).

Two other famous studies focused on the long term benefits of an early childhood education; the BEEP and CLS. The BEEP occurred between 1973 and 1981 (Theroux, 2006). "It was the nation's first health and developmental program sponsored by a public school and open to children from birth to three years in adjacent urban and suburban communities" (Theroux, 2006, p. 1). The CLS "evaluated outcomes of the Chicago Child-Parent Centers preschool programs located either within or next to public schools in low-income neighborhoods" (Campbell et al., 2012, p. 2). The CLS researchers found students who attended the preschool program scored higher on achievement tests, compared to those who did not receive the program (Chicago Longitudinal Study [CLS], 2000). According to CLS (2000), "By the end of grade 3, only 7.1% of the preschool group received special education services compare to 11.5% of the no preschool group" (p. 5). Not only did those in education pay attention to the landmark studies, so did those in the medical field (Docs for Tots, 2008; Palfrey et al., 2005). To assist with understanding study results within each study mentioned above, the author developed the information included on Table 2. Many different health behavior commonalities were found between the PPS, BEEP, and CLS.

Table 2

Research Results Associated with Studies

High/Scope Perry Preschool Study	Chicago Child Parent Centers Study	The Carolina Abecedarian Study	Brookline Early Education Project
Less likely to engage in risky behaviors	Lower rates of child maltreatment	Lower rates of cigarette smoking	More likely to visit a doctor or dentist annually
Less likely to use/abuse illicit drugs	Lower rates of depression	Lower rates of teen pregnancy	More likely to report a health rating of good or excellent
Less likely to engage in violent behaviors	More likely to have health insurance	Lower rates of marijuana use	Lower rates of depression

A group of researchers who studied 30 years of data from the Carolina Abecedarian Project found, “The combination of education, health screenings and nutrition gave those children a much lower risk of cardiovascular disease, as well as metabolic diseases such as stroke and diabetes in their mid-30s” (as cited in Bidwell, 2014, p. 1). Research suggested early childhood education had a long term relationship with an individual’s positive health and adults were less likely to engage in risky or dangerous behavior.

Another area of early childhood education previously explored was the long-term financial benefits. The *New York Times* noted, “Investment in the early education of disadvantaged children pays extremely high returns down the road” (as cited in Porter, 2013, para. 12). Researchers found the financial benefits of early childhood education included lower incarceration rates, better health, and higher wages (Campbell et. al., 2002; Executive Office of the President of the United States, 2014; Schweinhart et al.,

2005; Theroux, 2006). The PPS conducted a cost-benefit analysis and found, "The economic return to society of the Perry Preschool program was $244,812 per participant on an investment of $15,166 per participant - $16.14 per dollar invested" (Schweinhart et al., 2005, p. 3). The Executive Office of the President of the United States (2014) stated, "In total, the existing research suggests expanding early learning initiatives would provide benefits to society of roughly $8.60 for every $1 spent" (p. 3).

With clarity of long-term benefits through longitudinal research, short-term benefits increased. One of the most immediate short-term benefits of a pre-school program was in the preparation of students for school readiness. According to Rafoth et al. (2004), "the concept of school readiness typically refers to the child's attainment of a certain set of emotional, behavioral and cognitive skills needed to learn, work and function successfully in school" (p. 1). Early childhood education also closed the school readiness gap for children of color. "Children who attend a high-quality early learning program gain four months of learning, on average" (Ahmad & Hamm, 2013, p. 2).

Poverty and Early Childhood Education

Poverty plagued our society, up to the time of this writing. More than 50 years before this writing, President Jonson waged a 'War on Poverty' (Desilver, 2014). In a January 8th State of the Union address Johnson (1964) said the following:

> Poverty is a national problem, requiring improved national organization and support. But this attack, to be effective must also be organized at the state and the local level and must be supported and directed by state and local efforts.
>
> Our chief weapons in a more pinpointed attack will be better schools, and better health, and better homes, and better training, and better job opportunities to help

> more Americans, especially young Americans, escape from squalor and misery and unemployment roles where other citizens help to carry them. (p. 3)

While critics argued whether Johnson's 'War on Poverty' was a success, the fact remained poverty was still an issue in the United States (Desliver, 2014).

In September 2015, the U.S. Census Bureau reported, "The nation's official poverty rate in 2014 was 14.8 percent, which means there were 46.7 million people in poverty" (as cited in DeNava-Walt & Proctor, p. 12). In 2015, the National Center for Education Statistics reported, as of 2013, 51% of the nation's students were low income (as cited in Southern Education Foundation, 2015, p. 1) The percentage of low-income Missouri students fell between 42% and 47% in 2013. (Southern Education Foundation, 2015, p. 1). At the spring 2015 Association for Supervision and Curriculum Development (ASCD) Whole Child Symposium, the Southern Education Foundation, senior fellow, Suitts, spoke about poverty in education, saying, "It's a matter of our national future, because when one group becomes the majority of our students, they define what that future is going to be in education more than any other group" (as cited in Southern Education Foundation, 2015, p. 5).

When leaders focused on children and education, poverty became a schools' focus. Many studies had been published about poverty and the relationship to children. In 2013, approximately one in four children in the United States lived in poverty. (Repka, 2013). According to Driscoll and Nagel (2017), "Poor children are two times more likely than non-poor children to have stunted growth, iron deficiency, and severe asthma" (p. 1). Health issues were not the only concerns voiced by researchers.

Researchers also discovered poverty damaged or altered brain development in children (Bidwell, 2014; Luby et al., 2013; Repka, 2013; Stromberg, 2013) Scientists from Washington University published a study on the relationship of poverty on brain development in children and the researchers found "exposure to poverty in early childhood materially impacts brain development at school age further underscores the importance of attention to the well-established deleterious effects of poverty on child development" (Luby et al., 2013, p. 2). The study followed three to six-year-olds over a five-to-ten-year-span (Luby et.al, 2013). "Study findings demonstrated that exposure to poverty during early childhood is associated with smaller white matter, cortical gray matter and hippocampal and amygdala volumes measured at school age/early adolescence" (Luby et al., 2013). In an article written for the Smithsonian, Stromber (2013) stated, "research has shown that growing up in difficult circumstances dictated by poverty can wreak damages to a child's cognitive skills that last a lifetime" (p. 1).

Early childhood education took on the charge to change the negative outcomes of poverty. Rokosa (2011) stated in, *Fighting the War on Poverty with Early Childhood Education*, "Early childhood is the single most prolific period of development for children - 90 percent of a child's brain growth occurs between birth and the age of three" (2011, para. 5). Lamy (2014) asked the question, "How different would American poverty be if every child had equal access to high-quality educational experiences from as early as possible in their development, before the impact of poverty diminishes their potential" (p. 2). In another article, Lamy (2013) stated, "Preschool can provide the developmentally stimulating experiences that many children growing up in poverty lack" (para. 4).

As of 2011, 40 states publicly funded preschool programs (Rokosa, 2011, p. 1). The president also took on the charge to provide early childhood education to those in poverty. In 2013, President Obama proposed "a new federal-state partnership to provide all low- and moderate-income four year old children with high-quality preschool, while also expanding these programs to reach additional children from middle class families" (as cited in Slack, 2013, p. 2). The state of Missouri also acted and provided early childhood education to more children. In 2009, Missouri launched an initiative called "Top 10 by 20" aimed to place Missouri in the top 10 states in three areas (MODESE, 2012, p. 1); the second area focused on early childhood learning.

Researchers not only studied the importance of providing early childhood education to alter brain development, but also focused on the relationship between poverty, classroom engagement, and performance. Jensen (2013) found "students from low income households are more likely to struggle with engagement for seven reasons: 1. Health and Nutrition 2. Vocabulary 3. Effort 4. Hope and Growth Mind Set 5. Cognition 6. Relationships and 7. Distress" (p. 1). Jensen (2013) believed for the seven strategies to work a teacher needed to build a relationship with students. Merritt, Rimm-Kaufman, Berry, Walkowiak, and Larsen (2011) found instructional quality and class also predicted success among low-income students. (p. 4)

In 2015, the *St. Louis Post Dispatch* reported how poverty related to performance goals in Missouri. Moskop (2015) wrote, "Even in the area's highest performing districts, test scores can vary widely among students particularly when grouped by income" (2015, p. 1). Illinois had similar results when researchers studied performance scores and poverty (Silverberg & Lutton, 2015). "As the percentage of low-income

students goes up, the test scores go down. The pattern holds true at every income level, every year," (p. 1) Silverberg and Lutton (2015) stated.

While low-income children had a tougher time in school, a difference also existed in the Black and White achievement gap among low-income children. Research findings suggested "that reducing the Black-White achievement gap may require early intervention to reduce race gaps in home and school experiences during the infant and toddler years as well as during the preschool and school years" (Burchinal et al., 2011, p. 1). "The substantial gap in educational achievement between Black and White children is one of the most pernicious problems facing American society" (Burchinal et al., 2011, p. 1404).

Other researchers focused on closing the school readiness gap for children of color. "Children who are the most vulnerable, particularly low-income children of color, benefit the most from participation in high-quality preschool" (Ahmad & Hamm, 2013, p. 1). In 2013, the Center for American Progress released a poll showing "gaps in education levels for African American and Hispanics are viewed as one of the most serious problems associated with inequality in our nation" (Ahmad & Hamm, 2013, para. 17). Additional research suggested "as the incomes of affluent and poor American families have diverged over the past three decades, so too has the educational performance of the children in these families" (Kalil, 2016, p. 2).

The Fade-Out Effect

Not all researchers agreed with the belief early childhood education closed achievement gaps and created lasting results. In 2017, Bailey, Duncan, and Odgers published an article in the *Washington Post* based on research focused on the benefits of

early childhood education and the 'fade out' phenomenon. "We reviewed data from 67 high-quality interventions – all of which included some degree of pre-literacy and early math skill-building and most of which targeted economically disadvantaged children – and we found that the effect faded startlingly fast" (Bailey, Duncan, & Odgers, 2017, p. 1). The researchers believed the benefits gained by the disadvantaged children through preschool programs disappeared by third grade because other students caught up, based on skills learned in kindergarten and first grade (Bailey et al., 2017). Stipek (2017) believed to preserve the benefits of pre-school, educators needed to focus on what came next; "If we want to sustain the effects of preschool, we need to look at what happens after children enter school. Poor instruction can undo the effects of high-quality preschool experiences" (p. 1).

Despite concerns regarding the fade out effect, the greater weight of evidence supported investment in quality early childhood education to benefit each child and society. To acknowledge different research results was important, while recognizing the larger benefits of early childhood education.

Common Core and Race to the Top in Early Childhood Education

In 2009, state leaders from 48 states launched the Common Core State Standards (CCSS) and standardized what each student should know and be able to do upon high school graduation. "State school chiefs and governors recognized the value of consistent, real-world learning goals and launched this effort to ensure all students, regardless of where they live, are graduating high school prepared for college, career, and life" (NGA&CCSS, 2014, p. 1). As the CCSS gained momentum so did concerns over the relationship to early childhood education (Brown, 2015; National Association for the

Education of Young Children [NAEYC], 2015; Snow, 2015; Walton, 2014). Miller and Carlsson-Paige (2013) provided an insightful critique of the Common Core on Early Childhood Education and accused the developers of the Common Core of not including the National Association for the Education of Young Children (NAEYC) during the creation of K-3 standards. After a review of the Common Core committees "not a single one of them was a K-3 classroom teacher or early childhood professional" (Miller & Carlsson-Paige, 2013, p. 1).

"In 2012, the National Association for the Education of Young Children recognized that the Common Core State Standards presented cause for both opportunity and concern" (NAEYC, 2015, p. 1). While the NAEYC (2015) was encouraged by shared expectations, members were also concerned about the appropriateness of the standards. The Common Core provided standards in the areas of English language arts and math where early childhood standards covered more domains (NAEYC, 2015). With the adoption of Common Core, early childhood educators began to see a disturbing shift. "Many classrooms, especially those that depend on public funds, look more and more like classrooms for older children where standards, testing, and accountability rule" (Bywater McLaughlin, Carlsson-Paige, & Levin, 2013, p. 1). According to a survey from the nonprofit project, Defending the Early Years (DEY), most teachers reported, "playful learning is disappearing from their classrooms, and that developmentally inappropriate activities and assessments are now at the forefront of daily classroom life" (Bywater et al., 2013, p. 2).

About the same time Common Core developed, President Obama rolled out an initiative called Race to the Top (RTT). Race to the Top comprised of a "$4.35 billion

competitive grant program designed to spur state-level education innovation to boost student achievement, close achievement gaps, and prepare students for college and careers" (Miller & Hanna, 2014, p. 1). Through the course of three phases, 18 states were awarded the grant and the RTT became a model for additional grants (Howell, 2015, p. 4). In 2011, the Race to the Top Early Learning Challenge (RTT-ELC) was introduced. RTT-ELC was "designed to improve early learning and development for young children" (Colvard, 2013, p. 1).

While concerns continued over Common Core, Race to the Top and Race to the Top Early Learning Challenge continued to move forward. RTT-ELC included four key components: High-Quality Accountable Programs, Promoting Early Learning and Development Outcomes for Children, A Great Early Childhood Education Workforce, and Measuring Outcomes and Progress (U.S. Department of Education [USDOE], 2014, p. 4). "California, Delaware, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Rhode Island, and Washington were the first states to receive ELC grants in December 2011" (Colvard, , 2013, p. 1). According to the U.S. Department of Education (USDOE) funds could be used for:

> Establishing culturally, linguistically, and developmentally appropriate early learning and development standards across all the essential domains of school readiness for children from birth to kindergarten entry. Ensuring that quality program standards are applied to all early learning programs in the state. Building an improving state Tiered Quality Rating and Improvement Systems designed to inform parent about the quality of early learning programs and

> drive improvements to the quality of those programs. Promoting health and family engagement strategies. (2013, p.1)

U.S. Secretary of Education, Duncan stated, "By investing in high-quality early learning through programs like Race to the Top-Early learning Challenge, we are able to close achievement gaps, provide life-transforming opportunities for children, and strengthen and build a thriving middle class" (USDOE & USDHHS, 2014, p. 1).

By 2013, RTT-ELC awarded over $1 billion to states for early childhood programs (USDOE, 2013). In 2014, the USDOE released a progress update of the RTT-ELC, which included the adoption of a Tiered Quality Rating and Improvement System (TQRIS) to assess the programs, increase the number of students with high needs in quality learning programs, identification of what early childhood educators should know and the gathering of pre-kindergarten readiness data (USDOE, 2014). The RTT-ELC had a lot of growth with the increase of early learning programs. By 2013, the number of early learning programs in RTT-ELC states increased by 22,836 (USDOE, 2014, p. 43 and the proliferation of early childhood education programs was well documented. The emphasis had to shift from the quantity of programs to the quality of programs.

Quality Early Childhood Education

Several studies were published on the importance of quality early childhood education (Bishop, Maier, Melnick, & Wechsler, 2016; Johnson, 2016; Friedman-Krauss, Barnett, & Nores, 2016; NAEYC, 1995, 2018; U.S. Department of State, n.d.). Bishop, Maier, Melnick, and Wechsler (2016) identified several building blocks of quality early childhood education: comprehensive early learning standards and curricula, appropriate child assessments, ongoing support for teachers, support for diverse learners meaningful

family engagement, sufficient time, appropriate class size and teacher student ratio, comprehensive program assessments, and QRISs. "The benefits of high-quality early childhood education are clearer than ever. Research shows that early childhood education can lower involvement with the criminal justice system later in life and can reduce the need for remedial education" (Johnson, 2016 p. 1).

In 1995, the NAEYC released a position statement related to the quality, compensation, and affordability of early childhood education. The NAEYC stated, "High-quality care and education programs have been documented to promote children's development and learning, whereas poor-quality programs may place children's development, even their health and safety, at risk" (NAEYC, 1995, p. 2). In years recent to this writing, the NAEYC (2018) developed a list of 10 standards equated to quality early childhood programs. "Programs are required to meet standards grouped into 10 areas: relationships with children, curriculum, teaching approaches, child assessment, nutrition and health, staff qualifications, relationship with children's families, relationship with the community, physical environment, and program leadership and management" (NAEYC, 2018, p. 1). The U.S. Department of State (n.d.) also defined quality in early childhood education as, "A high quality childhood program provides a safe and nurturing environment while promoting the physical, social, emotional, and intellectual development of young children" (p. 1). Many examples of successful early childhood education programs existed with common components of quality. At the time of the study, the researcher was unable to find a consistent, detailed definition of high-quality early childhood education.

Quality Rating Improvement System

The QRIS was a tool or framework used to evaluate the quality of early care and education (ECE), inform parents, and help improve programs (Cannon et al., 2017; Child Care Aware of America, 2018; Cortes & Hallam, 2016). "QRISs, which treat quality of care in a multidimensional way, began at the end of the 1990s and have now been almost universally adopted as one tool that states and localities have employed to boost quality in ECE programs" (Cannon et al., 2017, p. 1). QRISs consisted of core components or quality indicators, evaluated in specific areas of practice, the monitoring of programs, program assistance, financial incentives, and community communication (Cannon et al., 2017; Cortes & Hallam, 2016). If an early childhood or developmental program was a part of a QRIS and had a significant licensing violation, then ratings could be adjusted or revoked. As of March 2017, "Eleven of the seventeen states and one Florida county revoke[d] the QRIS rating or dis-enroll an early childhood program from the QRIS when there is a serious licensing violation" (Early Learning Challenge Technical Assistance, 2017, p. 1).

In April 2017, the National Center on Early Childhood Quality Assurance (NCECQA) published a report of financial incentives in QRIS by state. "Most States offer a combination or menu of incentives that are awarded directly to the program or the individual staff" (National Center on Early Childhood Quality Assurance [NCECQA], 2017, p. 3). Thirty-seven states offered incentives that included tiered subsidy reimbursement, quality grants, bonuses, and awards, scholarships, tax credits, and other incentives (NCECQA, 2017).

Table 3

Missouri and Surrounding States Profiles

State	QRIS Name	QRIS Description	Service Area	Years Using QRIS
Arkansas AR	Better Beginnings	Composed of 3 levels and uses a block rating structure. Programs are rated on 5 categories.	Statewide	8
Iowa IA	Iowa's Quality Rating System	Composed of 5 levels in a hybrid structure.	Statewide	12
Illinois IL	ExcelRate Illinois	Composed of 4 levels and uses a block rating structure.	Statewide	5
Kansas KS	Links to Quality	Currently developing a new system. Pilot began fall of 2017.		
Kentucky KY	Stars for Kids Now	Composed of 4 levels and uses a block rating structure. Programs are rated on 4 categories.	Statewide	17
Missouri MO	No QRIS system. Planning phase of adopting a QRIS.			
Nebraska NE	Step Up To Quality	Composed of 5 steps. Licensed providers, which receive child care subsidies, must participate in the QRIS.	Statewide	4
Oklahoma OK	Reaching for the Stars	Composed of 4 levels and uses a block rating structure. Programs are rated on 6 categories.	Statewide	20
Tennessee TN	Report Care and Rated Licensing System	Composed of 3 levels in a hybrid structure.	Statewide	17

In 2016, Governor Nixon signed into law SB638, which ended Missouri's ban on quality rating systems for early childhood education programs (The Missouri Times, 2016). Missouri was the only state in the country that had a ban on quality rating systems (The Missouri Times, 2016).

Over the previous 18 years, the number of quality initiatives grew from three to 44. "As of fall 2017, there were 42 states and districts with at least one quality initiative, including QRIS" (The Build Initiative & Child Trends, 2017, p. 1). The Build Initiative and Child Trends published profile reports on the 50 states (see Table 3).

While many states moved toward a QRIS system, researchers began to look at the validity of the QRISs (Karoly, 2014; Schilder, Iruka, Dichter, & Mathias, 2015; Tout et al, 2017). "A key concern is whether the rating process, including the use of particular measures and the manner in which they are combined and cut scores are applied, produces accurate and understandable ratings" (Karoly, 2014, pg. ii). In December 2017, project director of Child Trends, along with other researchers analyzed the findings from 10 QRIS validation studies (Tout et al., 2017). The researchers found "the studies indicate that the ratings are generally working to distinguish lower and higher quality, but that further work is needed to strengthen quality measurement" (Tout et al. 2017, p. 55).

Early Childhood Curricula

Many different curricula programs were developed to teach the young; some programs were anchored in theory and research, while other programs were teacher created. "Curricula differ across a number of dimensions: philosophies, materials, the role of the teacher, pedagogy or modality, (e.g., small or large group setting), classroom design and child assessment" (Jenkins & Duncan, 2017). The National Center on Quality

Teaching and Learning (NCQTL) published a preschool curriculum consumer report in 2015 to provide assistance to Head Start programs to select a high-quality, research based programs (NCQTL, 2015). The report consisted of "descriptions of 13 components of an effective comprehensive curriculum, steps to prioritize these components to facilitate the selection process; suggestions to enhance a curriculum to fit the needs of a specific program; and a set of ratings" (NCQTL, 2015, p. 2). Thirteen curriculum components were evaluated; grounded in child development principles, evidence-based, showed effects on child outcomes, comprehensive across learning domains, depth for each covered learning domain, specific learning goals, well-designed learning activities, responsive teaching, supports for individualized instruction, culturally and linguistically responsive, ongoing assessments, professional development opportunities, and family involvement materials (NCQTL, 2015).

The state of Missouri recognized four different early childhood curriculums, which state administrators recommended as quality curriculums to early learning and developmental programs; each evaluated using a rubric (MODESE, n.d.a.). The rubric scored the curriculum on the following: valid research, evaluation results, professional development, developmentally appropriate content, alignment with state standards, student assessments, and relationships with families (MODESE, n.d.a.). The rubric was used to evaluate the quality of curriculums.

One state approved curriculum, Creative Curriculum, was developed in the late 70s by Dodge (Teaching Strategies, 2017) and evolved over a period of 40 years and six editions. "Creative Curriculum for Preschool is a comprehensive, research-based curriculum that features exploration and discovery as a way of learning, enabling children

to develop confidence, creativity, and lifelong critical thinking skills" (Teaching Strategies, 2017, p. 4). Fifty-five percent of Head Start and 32% of pre-k programs used the Creative Curriculum (Jenkins & Duncan, 2017, p. 37). Creative curriculum emphasized the whole child and active learning, with the teacher acting as a support or 'scaffold.' According to Teaching Strategies (2017) research foundation, the curriculum, the *Creative Curriculum for Preschool,* was based on five principals influenced by major theorists, such as John Dewey, children learn best from interaction with others; Vygotsky, social interaction is crucial to learning and scaffolding helps performance; and Erikson, cultural and social interactions and development.

Emerging Language and Literacy Curriculum (ELLC) was another state-approved curriculum. ELLC, originally designed for students with language disabilities, was developed at Children's Therapeutic Learning Center in Kansas City, Missouri (Department of Human Development and Family Science, 2018). The ELLC consisted of shared reading, language, literacy, cognitive circle time, learning centers, and small phonological awareness groups, integrated into 22 thematic units (Ornes, Patterson, McMilllian, Thomas, & Trumbower, 2017, p. 2). "ELLC prepares preschoolers for success in kindergarten and gives them a strong foundation in oral language and literacy with this scientifically-based curriculum" (Omes et al., 2017, p. 2).

The third curriculum approved and recommended by the state, the High Scope curriculum, was a constructivist approach of learning by doing. Weikart established the High Scope Educational Research Foundation in 1970, which conducted groundbreaking studies on early childhood curriculum (as cited in Morrison, 2018). The High Scope preschool curriculum covered eight content areas: approaches to learning; social and

emotional development; physical development and health; language, literacy and communication; mathematics; creative arts; science and technology; and social studies based on the principles of active learning (High Scope, 2018).

Project Construct, the fourth curriculum approved by the state, was also based on constructivism. Developed almost 30 years previous to this writing, Project Construct was designed for children aged birth through seven (Project Construct, 2014b, p. 1). “Through "hands-on, minds-on" learning experiences, students in Project Construct classrooms attain deep understandings in the core content areas, while they also learn to work collaboratively with adults and peers in vibrant learning communities” (Project Construct, 2014a, p. 1). “Project construct, an early childhood reform initiative designed to translate Piagetian theory into educational practice represents an expansive effort to develop and support constructivist early childhood teachers” (Schattgen, 1997, p. 34).

Cost of Educating the Young

Major early childhood programs, such as Head Start and Early Head Start, Preschool Development Grants, and Dependent Care Assistance Programs, have received funding support from the national and local governments. “Between the federal government and the states, the nation spends a little over $36.6 billion annually on early childhood programs, all but about $10 billion of that from the federal government” (Haskins, 2017, p. 86). According to Child Care Aware of America, the average annual cost of Missouri center-based child care in 2017 was $9,412 (Child Care Aware of America, 2018, p. 1); lower than the national average. Covert (2017) found, “The average price of day care for an infant reaches as much as $17,000 a year; it’s nearly $13,000 for a four year old” (p. 3). “In 33 states and the District of Columbia, infant care

costs exceed the average of in-state college tuition at public 4-year institutions" (Gould & Cooke, 2015, p. 2). As of 2017, the annual cost of public college tuition in Missouri was $538 less than the annual cost of infant care (Child Care Aware of America, 2018, p. 1). In 2018, the Center for American Progress developed a reporting tool to help parents understand the cost of child care. "The data in the interactive report make it clear that the U.S. child care system is broken and that high-quality early childhood programs remain out of reach for too many low- and middle-income families" (Medina, 2018, p. 1). The cost of high-quality child care versus base-quality child care varied per state (see Figure 2).

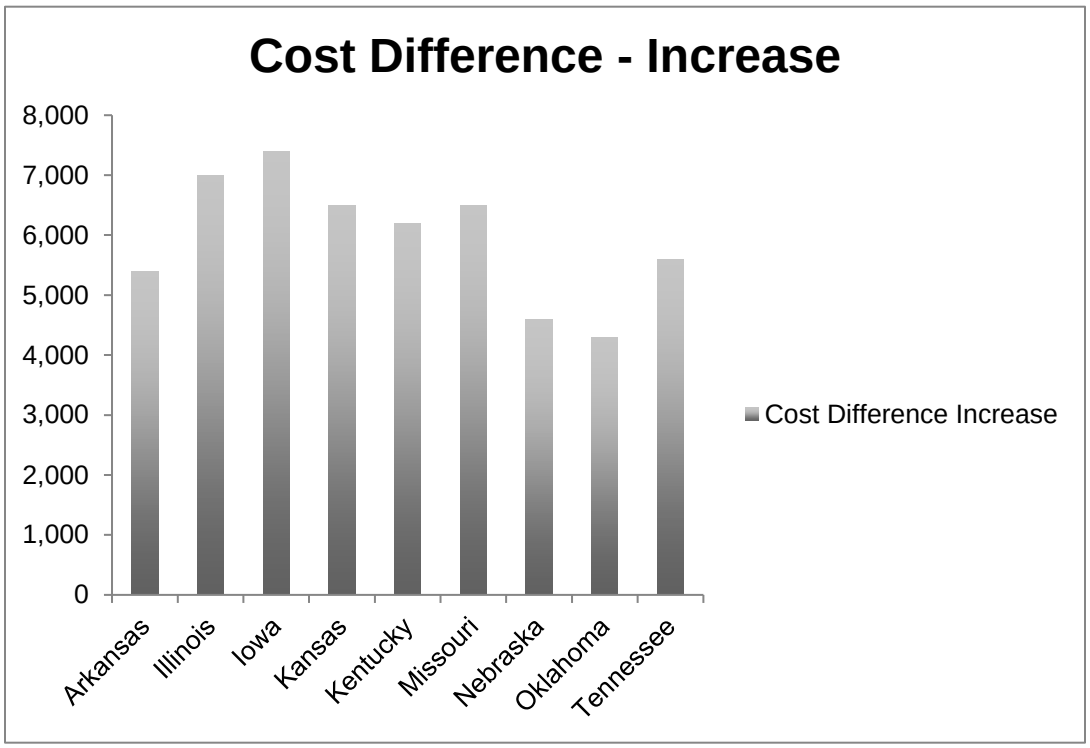

Figure 2. Cost Difference Between High-Quality Child Care and Base-Quality Child Care.

Iowa had the greatest disparity in cost between a base-quality program and a high-quality program. A high-quality preschool program in Iowa cost about $7,400 more than

a base-quality program, while Oklahoma had the least price disparity between a base-quality and high-quality program. A high-quality preschool program in Oklahoma was $4,300 dollars more than a base-quality program and in Missouri the annual cost of high-quality preschool was $6,500 more than a base-quality program. In 2014, the Productivity Commission began an inquiry into child care and early learning and found an "inherent trade-off" between affordability and quality in early childhood education and care services (as cited in McDonald, 2014). Single parents in Missouri paid almost half of their income for infant center care, and married parents who lived at the poverty line and had two children paid 65.9% of their household income for child center care (Child Care Aware of Missouri, 2017a, p. 1).

"One way of assisting families to afford appropriate child care services, the federal government established the OCC through the Administration for Children and Families division of the U.S. Department of Health and Human Services, in 2010" (as cited by Hantak, 2016, p. 43). The OCC helped low-income families with early care financial assistance and promoted quality early care and education (USDHHS, n.d.).

The OCC also maintained the Child Care Development Fund. "The Child Care and Development Fund is a multibillion-dollar federal and state partnership administered at the Federal level by OCC, to promote family economic self-sufficiency and to help children succeed in school and life through affordable, high-quality early care and afterschool programs" (USDHHS, 2018).

Licensing and Regulations of Early Childhood Programs

Licensing and regulations of early childhood programs varied across the United States, and each state had unique types of licensing. The state of Missouri adopted laws,

regulations, and guidelines for child care facilities, which included licensing regulations (Missouri DHSS, 2016). Missouri child care facilities fell under one of three license regulations; exempt child care facilities, family child care homes, group child care homes and child care centers (Missouri DHSS, 2016).

In 2014, the Administration for Children and Families Office of Child Care Licensing issued a report on contemporary issues in licensing in regards to quality assurance in child care licensing. The report detailed the importance of quality assurance when licensing early childhood facilities. "Quality assurance is the means for evaluation of a licensing program's effectiveness in the fair and equitable implementation and enforcement of the licensing statue and applicable regulations" (as cited in Administration for Children and Families Office of Child Care, 2014, p. 2). The Administration suggested states consider placing an emphasis on quality assurance, improve consistency by using an inter-rater reliability system, reevaluate, update and train licensing staff periodically, and to seek funding to support quality assurance programs (Administration for Children and Families Office of Child Care, 2014).

Early Childhood Organizations and Accreditations

Many different organizations established support efforts in early childhood education. "The National Association for the Education of Young Children (NAEYC) is a professional membership organization that works to promote high-quality early learning for all young children, birth through age 8, by connecting early childhood practice, policy, and research" (NAEYC, n.d.a., p. 1). The NAEYC developed an accreditation process early childhood and developmental programs enrolled in. According to the NAEYC, "Achieving NAEYC Accreditation is a four-step process that involves self-

reflection and quality improvement in order to meet and maintaining accreditation over a five-year period." (n.d.d.). The accreditation process included a variety of stakeholders; directors, teachers, and families. The NAEYC was only one accrediting organization.

The American Montessori Society (AMS, 2018) was another national accreditation agency. To be accredited through the AMS, a program had to fill out an application and pay accreditation fees and follow the Montessori philosophy, a child-centered approach which serviced children aged birth through high school, infant, toddler, and preschool age (American Montessori Society, 2018; National Center on Child Care Quality Improvement, 2014).

The state of Missouri developed an accréditation program for early learning and developmental programs. "Missouri Accreditation (MOA) provides quality standards for programs serving children from birth to school-age within the state of Missouri" (Missouri Accreditation Programs for Children & Youth, 2016, p. 1). According to the website, the MOA, an independent, non-profit, non-governmental agency, was founded in 1981 and provided accreditation through the validation of children's relationships and interactions, physical environment, program/curriculum, program/family connections, administration, and health, safety, and nutrition (2016).

Another organization considered a mainstay in accreditation was the National Early Childhood Program Accreditation (NECPA, 2017). For over 27 years the NECPA "encouraged quality and recognized excellence in early childhood programs throughout the United States and other countries" (p. 1). NECPA (2017) offered national accreditation for child care programs, director and administrator credentialing, and child care professional credentialing.

Then-Current Status

In years recent to this writing, support of the Common Core plummeted. Caldwell (2015), on *Meet the Press*, discussed Common Core and opponents; "Critics of Common Core fall into three camps: those who oppose the federal government's involvement in schools, those who don't like testing, and those who don't like the curriculum or the standards" (p. 2). As of 2014, three states repealed the standards and 34 states introduced anti-Common Core legislation (Berry, 2014). RTT also faced serious criticism in 2014. The President's main educational initiative lost all funding as part of a $1.01 trillion spending bill (Strauss, 2014). According to Lieberman (2014), RTT "already accomplished much of what it was designed to do" (p. 1). Lieberman (2014) went on to say, "The big question is whether states will make it a priority to sustain and build on the progress that they've made under RTT without federal support" (para. 9).

In May 2016, the NAEYC launched a two-year initiative, Power to the Profession, a national collaboration committed to high-quality early learning through a framework of professional guidelines (NAEYC, 2016). "This initiative aims to establish a shared framework of career pathways, knowledge and competencies, qualifications, standards, and compensation that unifies the entire profession, which will lead to a comprehensive policy and financing strategy for their systemic adoption and implementation" (NAEYC, n.d.e., p. 1). Many national taskforce organizations helped lead the initiative: The American Federation of Teachers, Child Care Aware of America, Division for Early Childhood of the Council for Exceptional Children, National Education Association, National Association of Elementary School Principal, and

National Head Start (NAEYC, 2016). The Power to the Profession taskforce broke decisions into several different decision cycles. Decision Cycle 1: Professional Identify and Boundary was based on the "central concept that early childhood educators care for and promote the learning, development and well-being of children birth through age eight in all early childhood settings while meeting the qualifications of the profession" (NAEYC, n.d.e., p. 1). Decision Cycle 2: General Competencies was based on an agreed set of standards and competencies that encompassed required knowledge and skills for the profession (NAEYC, 2017). Decision Cycles 3-5: included specializations, competency, attainment source, qualifications and pathways still under construction at the time of the research (Power to the Profession, 2018).

Summary

Since 1820, preschool initiatives evolved throughout the United States. The movement of Common Core early childhood education came to the forefront in the 2000s, resulting in 34% of three and four-year-olds in the United States who attended preschool (NIEER, 2015, p. 6). Research proved the long and short-term benefits of early childhood education in preparing students for kindergarten and that it was helping to shrink achievement gaps (Campbell et al., 2002; Campbell et al., 2012; Sparling, n.d.). While a high-quality program became the focal point of many discussions in the education community, many states began to discover ways to help reach additional preschool students (NIEER, 2015, pp. 6-7). As discussed in Chapter Two, the quantity and quality of early childhood education programs had become a high priority for the nation.

Chapter Three: Research Method and Design

Research Overview

This study consisted of a quantitative comparative content analysis on early learning and development programs in high-poverty and low-poverty counties in Missouri, to determine if programmatic inequality existed. The researcher sorted the counties of Missouri by poverty level using the data found in the Missourians to End Poverty (2016) study and Missouri Census data for 2015. Secondary data on the following variables were analyzed: the number of licensed programs by the Missouri Health and Senior Services Department in high poverty/low poverty counties, the number of licensed violations in high poverty/low poverty early learning and developmental programs, type of license violations in high poverty/low poverty early learning and developmental programs, type of curriculum, cost per pupil, and if the early learning and development program held accreditation. The researcher utilized a *z*-test for difference of two proportions, *t*-test for difference of two independent means, and a Chi-square goodness-of-fit-test to analyze each hypothesis.

Null Hypotheses

Null Hypothesis 1: There is no difference in the number of licensed early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 2: There is no difference in the number of license violations in early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 3: There is no difference in the type of license violations of early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 4: There is no difference in the number of high poverty/low poverty early learning and developmental programs in the state of Missouri that use a state approved curricula.

Null Hypothesis 5: There is no difference in the cost of early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 6: There is no difference in the number of accredited early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Data Samples

Table 4 represents the percentage of early learning and developmental centers located in high poverty counties. There were 114 counties in the state of Missouri and one independent city (Child Care Aware of Missouri, 2017b). Eight of the counties and the one independent city were considered high poverty counties with 25% or more individuals who lived at or below 100% of the federal poverty level as defined by Missourians to End Poverty (2016, p. 2) (see Table 4).

Table 4

Percentage Early Learning and Developmental Centers in High Poverty Counties

County	Total Child Care Programs	Percentage of Centers	Percentage of Licensed Centers
Adair	18	33.3	33.3
Dunklin	21	33.3	28.5
Mississippi	5	60	60
Pemiscot	13	53.8	46.1
Ripley	5	20	20
Shannon	4	100	75
St. Louis City	301	52.1	47.5
Washington	18	44.4	16.6
Wayne	8	62.5	62.5

Less than 10% of the individuals lived at or below 100% of the federal poverty level as defined by Missourians to End Poverty (2016, p. 2) (see Table 5).

Table 5

Percentage Early Learning and Developmental Centers in Low Poverty Counties

County	Total Child Care Programs	Percentage of Centers	Percentage of Licensed Centers
Clay	130	48.4	36.1
Platte	42	50	28.5
St. Charles	191	64.9	54.4
St. Louis	460	56.3	46.6

Table 6 represents the percentage of early learning and developmental centers in Adair County. The researcher found six licensed early learning and developmental programs in Adair County.

Table 6

Adair County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	27	9 Personnel 0 Facility 3Health & Safety 4 Records 11 Operations	Yes	Low	No
LELC 2	66	15 Personnel 13 Facility 8 Health & Safety 24 Records 6 Operations	Yes	High	No
LELC 3	36	8 Personnel 4 Facility 2 Health & Safety 14 Records 8 Operations	Yes	Low	No
LELC 4	71	18 Personnel 7 Facility 2 Health & Safety 29 Records 15 Operations	No	High	No
LELC 5	21	2 Personnel 0 Facility 2 Health & Safety 13 Records 4 Operations	Yes	Medium	Yes
LELC 6	13	6 Personnel 0 Facility 2 Health & Safety 5 Records 0 Operations	No	High	Yes

Over a three-year period, the programs had a total of 234 violations; 16.3 % of the violations were records violations and 66.6% of the licensed centers used a state approved curricula (DHSS, 2017). Fifty percent of the programs charged a higher cost of tuition per week and 33.3% of the programs were accredited (see Table 6).

There were six licensed early learning and developmental programs in Dunklin County. Over a three-year period, the programs had a total of 544 violations (DHSS, 2017). Over 50% of the violations were facility violations. Fifty percent of the programs used a state-approved curricula with one program not reporting. Sixty-six and six tenths percent of the programs charged a low cost of tuition per week with one program not reporting. Only 16.6% of the programs reported that they held accreditation (see Table 7).

Table 7

Dunklin County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	146	30 Personnel 38 Facility 19 Health & Safety 30 Records 29 Operations	Yes	Low	Yes
LELC 2	164	2 Personnel 94 Facility 17 Health & Safety 4 Records 47 Operations	No	Low	No
LELC 3	8	1 Personnel 2 Facility 0 Health & Safety 3 Records 2 Operations	-	-	-

Continued

Table 7 continued.

LELC 4	164	13 Personnel 106 Facility 25 Health & Safety 13 Records 7 Operations	No	Low	No
LELC 5	43	2 Personnel 28 Facility 7 Health & Safety 1 Records 5 Operations	Yes	Low	No
LELC 6	19	0 Personnel 10 Facility 2 Health & Safety 2 Records 5 Operations	Yes	Low	No

The researcher found three licensed early learning programs in Mississippi County. Over a three-year period, the programs had a total of 152 violations (DHSS, 2017). Over 50% of the violations were facility violations. Sixty-six and six tenths percent of the programs charged a low cost of tuition per week. None of the programs reported they held accreditation (see Table 8).

Table 8

Mississippi County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	22	0 Personnel 13 Facility 3 Health & Safety 2 Records 4 Operations	No	Low	No
LELC 2	41	6 Personnel 28 Facility 2 Health & Safety 5 Records 0 Operations	No	Low	No
LELC 3	87	19 Personnel 44 Facility 9 Health & Safety 11 Records 4 Operations	-	-	-

The researcher found six early learning and developmental programs in Pemiscot County. Over a three-year period, the programs had a total of 589 violations (DHSS, 2017). Forty-three and one tenth percent of the violations were facility violations. Thirty-three and three tenths percent of the licensed centers used a state approved curricula. Sixty-six and six tenths percent of the programs charged a low cost of tuition per week, with two not reporting. None of the programs reporting held accreditation (see Table 9)

Table 9

Pemiscot County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	90	12 Personnel 32 Facility 22 Health & Safety 7 Records 17 Operations	-	-	-
LELC 2	271	46 Personnel 102 Facility 21 Health & Safety 42 Records 60 Operations	Yes	Low	No
LELC 3	131	1 Personnel 81 Facility 6 Health & Safety 6 Records 37 Operations	-	-	-
LELC 4	59	6 Personnel 25 Facility 4 Health & Safety 18 Records 6 Operations	No	Low	No
LELC 5	26	0 Personnel 14 Facility 4 Health & Safety 2 Records 6 Operations	No	Low	No
LELC 6	6	6 Personnel 0 Facility 0 Health & Safety 6 Records 12 Operations	Yes	Low	No

The researcher found one early learning and developmental program in Ripley County. Over a three-year period, the program had a total of 15 violations (DHSS, 2017). Thirty-three and three tenths percent of the violations were facility violations. The

program reported it used a state recommended curriculum, and the program charged a low cost of tuition per week (see Table 10).

Table 10

Ripley County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	15	4 Personnel 5 Facility 2 Health & Safety 4 Records 0 Operations	Yes	Low	No

There were three licensed early learning and developmental programs in Shannon County.

Table 11

Shannon County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	40	4 Personnel 12 Facility 3 Health & Safety 5 Records 16 Operations	Yes	Low	Yes
LELC 2	57	0 Personnel 47 Facility 4 Health & Safety 1 Records 5 Operations	No	Low	No
LELC 3	86	4 Personnel 77 Facility 2 Health & Safety 3 Records 0 Operations	-	-	-

Over a three-year period, the programs had a total of 183 violations (DHSS, 2017). Seventy one percent of the violations were facility violation. Thirty-three and three tenths percent of the programs used a state approved curriculum. Sixty-six and six tenths percent charged a low cost of tuition per week and 33.3% held accreditation. One of the facilities did not report their information (see Table 11).

There were 143 licensed early learning and developmental programs in St. Louis City. For the purpose of this study the researcher examined eight programs. Over a three-year period the programs had a total of 832 violations. Over 28% of the violations were record violations. Only one of the programs reported in regards to their curriculum, cost and accreditation. That program used a State Approved Curriculum and charged a low weekly tuition fee (see Table 12).

Table 12

St. Louis City High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	81	24 Personnel 6 Facility 14 Health & Safety 32 Records 5 Operations	-	-	-
LELC 2	69	8 Personnel 9 Facility 18 Health & Safety 25 Records 9 Operations	-	-	-
LELC 3	42	5 Personnel 12 Facility 3 Health & Safety 13 Records 9 Operations	-	-	-

Continued

Table 12. Continued

LELC 4	39	6 Personnel 9 Facility 6 Health & Safety 16 Records 2 Operations	-	-	-
LELC 5	127	5 Personnel 17 Facility 36 Health & Safety 41 Records 28 Operations	-	-	-
LELC 6	24	7 Personnel 6 Facility 0 Health & Safety 8 Records 3 Operations	-	-	-
LELC 7	151	10 Personnel 37 Facility 46 Health & Safety 37 Records 21 Operations	Yes	Low	Yes
LELC 8	299	50 Personnel 82 Facility 71 Health & Safety 66 Records 30 Operations	-	-	-

There were 143 licensed early learning and developmental programs in St. Louis City. For the purpose of this study the researcher examined eight programs. Over a three-year period the programs had a total of 832 violations. Over 28% of the violations were record violations (see Table 13). Only one of the programs reported in regards to their curriculum, cost and accreditation. That program used a State Approved Curriculum and charged a low weekly tuition fee.

Table 13

Washington County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	44	2 Personnel 8 Facility 10 Health & Safety 20 Records 4 Operations	Yes	Low	No
LELC 2	40	0 Personnel 13 Facility 2 Health & Safety 15 Records 10 Operations	Yes	Low	No

The researcher found four licensed early learning and developmental programs in Wayne County. Over a three-year period, the programs had a total of 85 violations (DHSS, 2017). Forty five percent of the violations were operations violations. Seventy five percent of the programs used a state approved curricula. Fifty percent of the programs charged a low weekly tuition, with the other 50% charging a high weekly tuition. Fifty percent of the centers were accredited (see Table 14).

Table 14

Wayne County High Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	16	8 Personnel 8 Facility 0 Health & Safety 0 Records 0 Operations	Yes	Low	Yes
LELC 2	13	2 Personnel 2 Facility 6 Health & Safety 0 Records 3 Operations	No	High	Yes
LELC 3	8	2 Personnel 2 Facility 3 Health & Safety 1 Records 0 Operations	Yes	Low	No
LELC 4	48	0 Personnel 6 Facility 4 Health & Safety 2 Records 36 Operations	No	High	No

The researcher found 47 licensed early learning and developmental programs in Clay County. For the purpose of this study, the researcher examined 12 of the centers. Over a three-year period, the programs had a total of 511 violations (DHSS, 2017). Over 50% of the violations were facility and records violations. Fifty percent of the programs used a state approved curricula. Thirty three percent of the programs charged a high cost of tuition per week with two programs not reporting. Only 25% of programs reported were accredited (see Table 15).

Table 15

Clay County Low Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	13	4 Personnel 6 Facility 1 Health & Safety 0 Records 2 Operations	Yes	High	No
LELC 2	80	8 Personnel 31 Facility 5 Health & Safety 24 Records 12 Operations	No	Medium	No
LELC 3	6	0 Personnel 0 Facility 0 Health & Safety 4 Records 2 Operations	Yes	Medium	No
LELC 4	91	10 Personnel 9 Facility 9 Health & Safety 35 Records 28 Operations	No	High	Yes
LELC 5	34	7 Personnel 14 Facility 7 Health & Safety 2 Records 4 Operations	-	-	-
LELC 6	39	6 Personnel 12 Facility 7 Health & Safety 8 Records 6 Operations	Yes	Medium	High
LELC 7	38	8 Personnel 13 Facility 4 Health & Safety 11 Records 2 Operations	Yes	High	Yes

Continued

Table 15. Continued

LELC 8	10	1 Personnel 3 Facility 2 Health & Safety 4 Records 0 Operations	Yes	Low	No
LELC 9	47	10 Personnel 9 Facility 4 Health & Safety 16 Records 8 Operations	-	-	-
LELC 10	7	0 Personnel 6 Facility 1 Health & Safety 0 Records 0 Operations	Yes	Low	Yes
LELC 11	42	6 Personnel 17 Facility 2 Health & Safety 11 Records 6 Operations	No	High	No
LELC 12	103	8 Personnel 50 Facility 9 Health & Safety 22 Records 14 Operations	No	Low	No

There were 12 licensed early learning and developmental programs in Platte County. For the purpose of this study the researcher examined nine centers, three centers did not have data for the years examined. Over a three-year period, the programs had a total of 537 violations (DHSS, 2017). Sixty four percent of the violations were facility and records violations. 44% of programs used a state approved curricula. Seventy eight percent of the centers charged a high cost of tuition per week. Only 22% of the programs were accredited (see Table 16).

Table 16

Platte County Low Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	47	4 Personnel 33 Facility 8 Health & Safety 7 Records 4 Operations	Yes	High	No
LELC 2	56	5 Personnel 31 Facility 0 Health & Safety 17 Records 8 Operations	Yes	High	No
LELC 3	22	3 Personnel 5 Facility 5 Health & Safety 7 Records 2 Operations	No	High	No
LELC 4	65	8 Personnel 19 Facility 16 Health & Safety 15 Records 7 Operations	No	High	Yes
LELC 5	178	33 Personnel 56 Facility 12 Health & Safety 60 Records 17 Operations	No	High	Yes
LELC 6	13	2 Personnel 7 Facility 0 Health & Safety 2 Records 2 Operations	Yes	Low	No
LELC 7	54	5 Personnel 30 Facility 4 Health & Safety 7 Records 8 Operations	No	Low	No

Continued

Table 16. Continued

LELC 8	60	10 Personnel 23 Facility 5 Health & Safety 17 Records 6 Operations	Yes	High	No
LELC 9	42	4 Personnel 8 Facility 9 Health & Safety 14 Records 7 Operations	No	High	No

There were 103 licensed early learning and developmental programs in St. Charles County. For the purpose of this study the researcher examined 12 centers. Over a three-year period, the programs had a total of 1009 violations (DHSS, 2017). Fifty seven percent of the violations were facility and records violations. Eight and three tents percent of programs used a state approved curricula. Seventy five percent of the centers charged a medium cost of tuition per week. Only 8.3% of the programs were accredited (see Table 17).

Table 17

St. Charles County Low Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	79	12 Personnel 13 Facility 19 Health & Safety 29 Records 6 Operations	No	Medium	No
LELC 2	26	6 Personnel 3 Facility 8 Health & Safety 9 Records 0 Operations	Yes	Medium	No

Continued

Table 17. Continued

LELC 3	34	5 Personnel 8 Facility 9 Health & Safety 10 Records 2 Operations	No	High	No
LELC 4	2	0 Personnel 0 Facility 0 Health & Safety 0 Records 2 Operations	No	Medium	No
LELC 5	16	2 Personnel 1 Facility 4 Health & Safety 4 Records 5 Operations	No	Medium	No
LELC 6	40	5 Personnel 13 Facility 3 Health & Safety 15 Records 4 Operations	No	Medium	No
LELC 7	8	0 Personnel 0 Facility 0 Health & Safety 8 Records 0 Operations	No	Medium	No
LELC 8	314	50 Personnel 72 Facility 48 Health & Safety 101 Records 43 Operations	No	High	No
LELC 9	201	16 Personnel 97 Facility 40 Health & Safety 30 Records 18 Operations			
LELC 10	28	1 Personnel 10 Facility 12 Health & Safety 4 Records 0 Operations	No	Medium	No

Continued

Table 17. Continued

LELC 11	227	30 Personnel 77 Facility 48 Health & Safety 54 Records 18 Operations	No	Low	No
LELC 12	36	1 Personnel 3 Facility 9 Health & Safety 20 Records 3 Operations	No	Medium	Yes

The researcher found 211 licensed early learning and developmental programs in St. Louis County. For the purpose of this study the researcher examined 12 centers. Over a three-year period, the programs had a total of 1117 violations (DHSS, 2017). Fifty seven percent of the violations were facility and records violations. Twenty five percent of programs used a state approved curricula. Sixty-six and six tenths percent of the centers charged a medium cost of tuition per week. Only 25% of the programs were accredited (see Table 18).

Table 18

St. Louis County Low Poverty Early Learning and Developmental Programs

Licensed Early Learning Center (LELC)	# of License Violations Over 3 Years	Type of Violations (Personnel, Facility, Health & Safety, Records, Operations)	State Approved Early Childhood Curriculum	Cost: Low, Medium, or High	Accredited Centers
LELC 1	458	90 Personnel 104 Facility 46 Health & Safety 136 Records 82 Operations	No	Medium	No
LELC 2	10	0 Personnel 4 Facility 6 Health & Safety 0 Records 0 Operations	Yes	High	No

Continued

Table 18. Continued

LELC 3	101	23 Personnel 21 Facility 5 Health & Safety 41 Records 11 Operations	No	High	No
LELC 4	42	6 Personnel 13 Facility 0 Health & Safety 18 Records 5 Operations	Yes	Medium	Yes
LELC 5	108	13 Personnel 30 Facility 26 Health & Safety 22 Records 17 Operations	No	Medium	No
LELC 6	46	2 Personnel 6 Facility 8 Health & Safety 25 Records 5 Operations			
LELC 7	23	2 Personnel 3 Facility 2 Health & Safety 16 Records 0 Operations	No	Medium	No
LELC 8	136	13 Personnel 56 Facility 13 Health & Safety 36 Records 18 Operations	No	Medium	No
LELC 9	22	0 Personnel 12 Facility 1 Health & Safety 7 Records 2 Operations	No	Medium	Yes
LELC 10	2	0 Personnel 0 Facility 2 Health & Safety 0 Records 0 Operations	Yes	Medium	Yes

Continued

Table 18. Continued

LELC 11	128	4 Personnel 40 Facility 25 Health & Safety 32 Records 27 Operations	No	Medium	No
LELC 12	41	2 Personnel 7 Facility 20 Health & Safety 8 Records 4 Operations	No	High	No

Data Collection and Analysis Procedures

The researcher identified the poverty level of counties among the state of Missouri using data gathered from the Missourians to End Poverty (2016) study and Missouri Census data for 2015. Counties were sorted by poverty level and then narrowed by the type of counties, high poverty and low poverty. High poverty counties were identified as having a population of 25% or more of the individuals living at or below 100% of the federal poverty level, as defined by Missourians to End Poverty (2016, p. 5). Low poverty counties were identified as having a population of less than 10% of the individuals living at or below 100% of the federal poverty level, as defined by Missourians to End Poverty (2016, p. 5).

Once the researcher narrowed the list, the researcher used the Childcare Aware of Missouri (2016) website to create a list of early learning and developmental programs in each county. If a county had more than 30 early learning and developmental programs, then a random sample was selected. The researcher identified the cost per pupil and curriculum used by gathering information on the program's website and or a phone call to the program. The researcher gathered violation data using Missouri DHSS website (2017). At the time of the study, Missouri had 22 codes and regulations that a child care

facility was required to adhere to (DHSS, n.d., p. 1). The researcher sorted the 22 violations into five categories; personnel, facility, health and safety, records, and operations.

A tally sheet (see Appendix A) was used to count the number of violations over three years and to record the curriculum used, cost per week, and accreditation. The researcher developed a matrix to mark the differences among programs in high poverty and low poverty counties in Missouri. Statistical analysis included a z-test for difference of two proportions, *t*-test for difference of two independent means, and a Chi-square goodness-of-fit-test to determine a possible difference between the high poverty/low and poverty programs by the number of licensed centers, the number of violations, the frequency of different types of violations, the number of centers that used a state approved curricula, the cost per pupil, and the number of centers with accreditation.

Threat to Validity

One threat to the validity of the study was the researcher's limited access in the amount of data collected. Data were solely collected on early learning and developmental centers in high/low poverty counties. Due to the lack of participation in the previous planned study, the researcher was limited on information gathered to secondary data. Another threat to the validity was the number of centers per county. Some counties had a low number of centers, making data limited while other counties had a large number of centers. All centers researched had licensing reports from the Missouri DHSS. The curricula, cost, and accreditation information was limited to self-reporting by the centers studied.

Summary

Missourians to End Poverty (2016) published a study evaluating the poverty levels in Missouri by county. The researcher used the information to identify eight high-poverty counties and one independent city. The researcher also identified four low poverty counties in the state of Missouri. At the time of the study, there were 198 early learning and developmental centers in high-poverty counties in the state of Missouri; 175 of those centers were licensed (Child Care Aware of Missouri, 2017b). Low-poverty counties had 466 early learning and developmental programs, with 373 of them licensed (Child Care Aware of Missouri, 2017b, p. 1). During data collection, the researcher found the number of centers in a county depended on the size of the county.

The Missouri DHSS evaluated each of the above centers annually, and the centers were evaluated several times a year. Each center was licensed, based on the compliance to the state rules and regulations (DHSS, n.d.). An examiner, from the Missouri DHSS completed evaluations through scheduled, surprise visits and visits based on registered complaints (DHSS, 2017). The scope of the research was the analysis of reports over a three-year period.

As of June 2018, the state of Missouri lacked a regulatory system in place to evaluate or accredit early learning and developmental programs. The only evaluation completed on programs was licensing, and dependence on whether a center met a specific criteria. Early learning and developmental programs run through church or religious organizations could be exempt from licensing regulations and rules.

Chapter Four includes an analysis of Missouri DHSS for Child Care Regulation Group Home and Center Inspection Reports over a three-year period and compares the

number of licensed centers in each county, the number of violations, the type of violations, the curriculum used, and if the center held additional accreditation. The researcher also examined the results in relation to the null hypotheses. Chapter Five includes a discussion of the results and recommendations for future studies.

Chapter Four: Results

The researcher completed a comparative analysis of early learning and developmental programs in nine high-poverty and four low-poverty counties in the state of Missouri using secondary data provided by the Missouri DHSS, Child Care Aware of Missouri, and Early Learning Centers. The researcher analyzed Missouri DHSS for Child Care Regulation Group Home and Center Inspection Reports over a three-year period and compared the number of licensed centers in each county, the number of violations, the type of violations, the curriculum used, and whether the center held additional accreditation. Additionally, the researcher selected nine high-poverty and four low-poverty counties based on a 2016 State of the State Poverty in Missouri report published by the Missouri Community Action Network (2017). High poverty counties were identified by the number of individuals at or below 100% of the federal poverty level (Missourians to End Poverty, 2016, p. 4). Those counties where 25% or more of the individual were at or below the 100% of the federal poverty level were considered high poverty, and counties in which 10% to 14.9% of the individuals were living at or below 100% of the federal poverty level were considered low poverty (Missourians to End Poverty, 2016, p. 4). Adair, Dunklin, Mississippi Pemiscot, Ripley, Shannon, St. Louis City, Washington, and Wayne counties all fell under the high poverty category (Missourians to End Poverty, 2016, p. 4). The researcher compared and analyzed 40 high poverty early learning and developmental programs. Clay, Platte, St. Charles, and St. Louis counties all fell under the low poverty category. The researcher compared and analyzed 45 low poverty early learning and developmental programs.

Adair County

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 26.9% of the population in Adair County lived at or below 100% of the federal poverty level (Child Care Aware of Missouri, personal communication, September 26, 2017). In 2015, Adair had a population of 25,378; 23,645 self-identified as White; 511 self-identified as Black or African American, 83 self-identified as American Indian and Alaska Native, 631 self-identified as Asian, 18 self-identified as Native Hawaiian and Other Pacific Islander, and 490 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Adair County was located in the central region of the state of Missouri and had 18 child care programs; with six of the child care programs labeled as early learning centers, and all 6 licensed with the state of Missouri (Child Care Aware, personal communication, September 26, 2017). The minimum cost for a center-based program for three-to-five-year-olds in Adair County was $100 a week, the average cost was $105 a week, and the maximum cost was $110 a week (Child Care Aware, personal communication, September 26, 2017). The researcher analyzed six licensed early learning centers located in Adair County.

Dunklin

According to the U.S. Census Bureau 2015, and Child Care Aware of Missouri 2017, 29.8% of the population in Dunklin County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Dunklin had a population of 30,119; 26,113 of the population self-identified as White, 3,220 self-identified as Black or African American, 131 self-identified as American Indian and Alaska Native, 108 self-identified as Asian, six self-identified as

Native Hawaiian and Other Pacific Islander, and 530 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Dunklin County was located in the southern region of Missouri and had 21 child care programs at the time of the study. Seven of the child care programs in Dunklin County were early learning centers, and six were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Dunklin County was $65 a week, the average cost was $69 a week, and the maximum cost was $75 a week (Child Care Aware, personal communication, September 26, 2017). The researcher analyzed six licensed early learning centers in Dunklin County.

Mississippi

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 32.2% of the population in Mississippi County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Mississippi had a population of 14,036; 10,344 self-identified as White, 3,447 self-identified as Black or African American, 43 self-identified as American Indian and Alaska Native, 33 self-identified as Asian, two self-identified as Native Hawaiian and Other Pacific Islander, and 167 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1).

Mississippi County was located in the southern region of Missouri and had five child care programs, at the time of the study. Three of the child care programs were early learning centers, and all three were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Mississippi County was $25 a week, the average cost was $45 a week, and the maximum cost was $65 a week (Child

Care Aware, personal communication, September 26, 2017). The researcher analyzed three licensed early learning centers in Mississippi County.

Pemiscot

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 28.7% of the population in Pemiscot County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Pemiscot had a population of 17,482; 12,352 of the population was White, 4,696 self-identified as Black or African American, 86 self-identified as American Indian and Alaska Native, 67 self-identified as Asian, 11 self-identified as Native Hawaiian and Other Pacific Islander, and 270 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Pemiscot County was located in the southern region of Missouri and had five child care programs. Three of the child care programs were early learning centers, and all three were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Mississippi County was $25 a week, the average cost was $45 a week, and the maximum cost was $65 a week (Child Care Aware, personal communication, September 26, 2017). Six licensed early learning centers were researched in Pemiscot County.

Ripley

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 13,802 of the population in Ripley County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Ripley had a population of 13,802; 13,300 of the population was White, 91 self-identified as Black or African American, 130 self-identified as American Indian and

Alaska Native, 49 self-identified as Asian, four self-identified as Native Hawaiian and Other Pacific Islander, and 228 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Ripley County was located in the southern region of Missouri and had five child care programs. One of the child care programs was an early learning center and was licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Ripley County was $65 a week, the average cost was $68 a week, and the maximum cost was $70 a week (Child Care Aware, personal communication, September 26, 2017). One, licensed early learning centered was researched in Ripley County.

Shannon

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 28.2% of the population in Shannon County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Shannon County had a population of 8,258; 7,899 of the population was White, 34 self-identified as Black or African American, 91 self-identified as American Indian and Alaska Native, 22 self-identified as Asian, one self-identified as Native Hawaiian and Other Pacific Islander, and 211 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Shannon County was located in the southern region of Missouri and had four child care programs. Four of the child care programs were early learning centers, and three were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Shannon County was $22 a week, the average cost was $45 a week, and the maximum cost was $73 a week (Child Care Aware, personal

communication, September 26, 2017). Three licensed early learning centers were researched in Shannon County.

St. Louis City

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 28.8% of the population in St. Louis City lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, St. Louis City had a population of 315,685; 148,733 of the population was White, 147,961 self-identified as Black or African American, 930 self-identified as American Indian and Alaska Native, 10,391 self-identified as Asian, 148 self-identified as Native Hawaiian and Other Pacific Islander, and 7,522 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). St. Louis city was located in the eastern region of Missouri and was not considered part of a county. St. Louis city had 301 child care programs. One hundred fifty seven of the child care programs were early learning centers, and 143 were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in St. Louis City was $50 a week, the average cost was $113 a week, and the maximum cost was $345 a week (Child Care Aware, personal communication, September 26, 2017). A random pull of eight licensed early learning centers was researched in St. Louis City.

Wayne

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 26.4% of the population in Wayne County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Wayne had a population of 13,405; 12,955 of the population was White, 102 self-

identified as Black or African American, 66 self-identified as American Indian and Alaska Native, 40 self-identified as Asian, five self-identified as Native Hawaiian and Other Pacific Islander, and 237 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Wayne County was located in the southern region of Missouri and had five child care programs. Four of the child care programs were early learning centers, and all four were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Wayne County was $25 a week, the average cost was $50 a week, and the maximum cost was $65 a week (Child Care Aware, personal communication, September 26, 2017). Four licensed early learning centers were researched in Wayne County.

Washington

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 25.5% of the population in Washington County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Washington had a population of 24,788; 23,625 of the population was White, 599 self-identified as Black or African American, 130 self-identified as American Indian and Alaska Native, 64 self-identified as Asian, five Native Hawaiian and Other Pacific Islander, and 237 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Washington County was located in the central region of Missouri and had eight child care programs. Three of the child care programs were early learning centers, and all three were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Washington County was $50 a week, the average cost was $65 a week, and the maximum cost was $80 a week (Child Care Aware, personal

communication, September 26, 2017). Three licensed early learning centers were researched in Washington County.

Clay

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 9.1% of the population in Clay County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Clay County had a population of 235,637; 206,974 of the population was White, 14,706 self-identified as Black or African American, 1,442 self-identified as American Indian and Alaska Native, 5,668 self-identified as Asian, 673 self-identified as Native Hawaiian and Other Pacific Islander, and 6,174 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Clay County was located in the western region of Missouri and had 130 child care programs. Sixty-three of the child care programs were early learning centers, and 47 were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Clay County was $85 a week, the average cost was $124 a week, and the maximum cost was $150 a week (Child Care Aware, personal communication, September 26, 2017). The researcher conducted a random pull and researched 12 licensed early learning centers in Clay County.

Platte

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 6.9% of the population in Platte County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, Platte County had a population of 96,096; 83,679 of the population was White, 6,385 self-identified as Black or African American, 570 self-identified as American

Indian and Alaska Native, 2,510 self-identified as Asian, 437 self-identified as Native Hawaiian and Other Pacific Islander, and 2,515 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). Platte County was located in the western region of Missouri and had 42 child care programs. Twenty-one of the child care programs were early learning centers and were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in Mississippi County was $100 a week, the average cost was $147 a week, and the maximum cost was $205 a week (Child Care Aware, personal communication, September 26, 2017). Twelve licensed early learning centers were researched in Platte County.

St. Charles

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 6.8% of the population in St. Charles County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, St. Charles County had a population of 385,590; 348,618 of the population was White, 18,390 self-identified as Black or African American, 994 self-identified as American Indian and Alaska Native, 9,922 self-identified as Asian, 268 self-identified as Native Hawaiian and Other Pacific Islander, and 7,398 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). St. Charles County was located in the eastern region of Missouri and had 191 child care programs. One hundred and twenty three of the child care programs were early learning centers, and 103 were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in St. Charles County was $49 a week, the average cost was $146 a week, and the maximum cost was $225 a week (Child Care Aware, personal communication, September 26,

2017). The researcher conducted a random pull and researched 12 licensed early learning centers St. Charles County.

St. Louis

According to the U.S. Census Bureau (2015), and Child Care Aware of Missouri (2017), 9.6% of the population in St. Louis County lived at or below 100% of the federal poverty level (Child Care Aware, personal communication, September 26, 2017). In 2015, St. Louis County had a population of 1,003,362; 697,322 of the population was White, 241,333 self-identified as Black or African American, 2,333 self-identified as American Indian and Alaska Native, 41,874 self-identified as Asian, 249 self-identified as Native Hawaiian and Other Pacific Islander, and 20,251 self-identified as two or more races (U.S. Census Bureau, 2015, p. 1). St. Louis County was located in the eastern region of Missouri and had 460 child care programs. Two hundred fifty nine of the child care programs were early learning centers, and 211 were licensed in the state of Missouri. The minimum cost for a center-based program for three-to-five-year-olds in St. Louis County was $50 a week, the average cost was $152 a week, and the maximum cost was $300 a week (Child Care Aware, personal communication, September 26, 2017). The researcher conducted a random pull and researched 12 early learning centers in St. Louis County.

The researcher wanted to examine if there was a difference in the quality of early learning and developmental programs in high poverty/low poverty counties in the state of Missouri and examined six different null hypotheses.

Null Hypotheses

Null Hypothesis 1: There is no difference in the percentage of licensed early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 2: There is no difference in the percentage of license violations in early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 3: There is no difference in the type of license violations of early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 4: There is no difference in the number of high poverty/low poverty early learning and developmental programs in the state of Missouri that use the state approved curricula.

Null Hypothesis 5: There is no difference in the cost of early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Null Hypothesis 6: There is no difference in the number of accredited early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Results

Null Hypothesis 1. The researcher analyzed the percentage of licensed early learning and developmental programs in high poverty and low poverty counties using a *z*-test for difference of two proportions. The analysis revealed a difference in the

percentage of licensed facilities in high poverty areas (n = 198, 88.4%) and low poverty areas (n = 466, 80.0%); $z = 2.608$, $p = 0.0091$. The researcher rejected the null hypothesis, and therefore supported the alternate hypothesis that a significant difference existed.

Null Hypothesis 2. The researcher analyzed the percentage of license violations in early learning and developmental programs available among high poverty/low poverty counties using a *t*-test for difference of two independent means. A preliminary test of variances showed the variances were equal. The analysis revealed no difference in the mean total violations of licensed facilities in high poverty areas (M = 67.63, SD = 67.40) and low poverty areas (M = 71.05, SD = 88.30); $t(80) = -0.194$, $p = 0.8464$. The researcher did not reject the null hypothesis, and therefore did not support the alternate hypothesis. No significant difference was established.

Null Hypothesis 3. The researcher analyzed the percentage of different types of license violations of early learning and developmental programs available among high poverty/low poverty counties using a Chi-square goodness-of-fit-test.

Table 19

% of Violation Types per High/Low Poverty

	Personnel	Facility	Health/Safety	Records	Operations
High Poverty	12.6%	36.7%	14.4%	19.5%	16.7%
Low Poverty	13.6%	30.4%	14.6%	28.4%	13.1%

The analysis revealed a difference in the distribution of violations in high poverty areas and in low poverty areas; $\chi^2(4, n = 3181) = 189.22$, $p < 0.0000$. The researcher

rejected the null hypothesis, and therefore supported the alternate hypothesis that a significant difference existed (see Table 19).

Null Hypothesis 4. The researcher analyzed the percentage of early learning and developmental programs with state recommended curricula among high/low poverty counties using a *z*-test for difference of two proportions. The analysis revealed the percentage of facilities in high poverty areas with state recommended curricula (n = 26, 57.7%) was significantly different from the percentage in low poverty areas (n = 43, 32.6%); $z = 2.047$, $p = 0.0407$. Analysis indicated the percentage of facilities in high poverty areas with state recommended curricula was significantly higher than that in low poverty areas. The researcher rejected the null hypothesis, and therefore supported the alternative hypothesis that a significant difference existed.

Null Hypothesis 5. The researcher analyzed the percentage of early learning and developmental programs in high/low poverty counties charging a high, medium, or low cost using a Chi-square goodness-of-fit-test. Analysis revealed the distribution of costs in high poverty areas and in low poverty areas were not the same; $\chi^2(2, n = 42) = 234.90$, $p < 0.0000$. The researcher rejected the null hypothesis, and therefore supported the alternative hypothesis that a significant difference existed (see Table 20).

Table 20

% of Programs Charging a High, Medium, or Low Weekly Cost

	Low Cost	Medium Cost	High Cost
High Poverty	76.9%	3.8%	19.2%
Low Poverty	14.0%	46.5%	39.5%

Null Hypothesis 6. The researcher analyzed the percentage of extra-accredited early learning and developmental programs in high/low poverty areas using a *z*-test for difference of two proportions. The analysis revealed the percentage of facilities in high poverty areas with accreditation (n = 26, 23.1%) was not significantly different from the percentage in low poverty areas (n = 43, 20.9%); $z = .215$, $p = 0.8300$. Analysis indicated the percentage of facilities in high poverty areas with accreditation was not significantly higher than that in low poverty areas. The researcher failed to reject the null, and therefore did not support the alternative hypothesis that a significant difference existed.

Summary

The researcher conducted this study to determine a difference between the quality of early learning and developmental programs in high and low poverty counties around the state of Missouri. The researcher determined the quality of a program based on the percentage of licensing violations, type of violations, curricula used, whether a center held extra accreditation, and the cost per week. After data analysis the researcher described the results as mixed.

The researcher found a difference in the percentage of licensed early learning and developmental programs in high poverty/low poverty counties around Missouri and the percentage of licensed early learning and developmental programs was much higher in low poverty counties. While there was no difference in the number of license violations in high/low poverty counties, the type of violations differed. Low poverty early learning and developmental programs had 8.9% more record-keeping violations. Learning and developmental programs in high poverty counties had more facility and operation

violations. Chapter Five includes a discussion of the results and recommendations for future research.

Chapter Five: Discussion

Due to the limited number of early childhood evaluations in the state of Missouri, there was a gap of information on equity and quality of early learning and developmental programs across the state. The last comprehensive study was conducted in 2003; but, only focused on those centers defined as a part of the MPP program (J. Ralston & K. Thornburg, personal communication, July 20, 2018). The MPP had an application process in which grants were given to those eligible preschools that met the program requirement. The grants were short term and aimed at increasing high-quality early care and education programs for children who were between the ages of three and five (MODESE, 2017).

At the time of the study, only those early childhood programs who were part of the MPP were required to be licensed and accredited by MOA or NAEYC, as well as use a state approved curriculum. In 2017, only 6.2% of all early childhood centers in the state of Missouri were a part of the MPP and comprehensively evaluated yearly for quality, leaving 93.7% of all facilities unevaluated (Child Care Aware of America, 2018, MODESE, 2017). The researcher found the high percentage of unevaluated facilities alarming. Statistically, approximately 278,305 children under the age of six may not be exposed to early childhood centers (Child Care Aware of America, 2018, p. 1). In, effect, the lack of accountability meant quality early childhood education programs for Missouri children were unknown, leaving far too many children behind socially and academically, with likely lifelong consequences.

Hypotheses

The study addressed six hypothesis statements, which evaluated the accessibility and affordability of early childhood centers, the amount and type of licensing violations, quality curricula and accreditation in high/low poverty counties across the state of Missouri.

Hypothesis 1: There is a difference in the percentage of licensed early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 2: There is a difference in the percentage of license violations in early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 3: There is a difference in the type of license violations of early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Hypothesis 4: There is a difference in the number of high poverty/low poverty early learning and developmental programs in the state of Missouri that use a state approved curricula.

Hypothesis 5: There is a difference in the cost of early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Hypothesis 6: There is a difference in the number of accredited early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

Summary of Findings

For the purpose of the study, the results responded to an examination of six hypothesis statements. The researcher utilized a *z*-test for difference of two proportions, *t*-test for difference of two independent means, and a Chi-square goodness-of-fit-test to determine whether each hypothesis statement was supported. Due to the use of secondary data, the researcher was limited in the depth of examination. However, the results led the researcher in future study recommendations and all recommendations will be shared with the Missouri Department of Education and other advocates of equitable, quality early childhood education for all children, regardless of the poverty levels of parents and children.

Hypothesis 1. There is a difference in the percentage of licensed early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

Upon calculation of the number of reported licensed early learning and developmental programs in high/low poverty counties in Missouri a *z*-test for difference of two proportions revealed a significant difference in the percentage of licensed facilities. Low-Poverty areas (n = 466, 80.0%); had a greater number of licensed facilities than those in high-poverty areas (n = 198, 88.4%) $z = 2.608$, $p = 0.0091$. The results revealed programmatic inequity in the early childhood system across the state of Missouri. Those living in poverty had less access to early childhood programs (see Table 21).

Table 21

Counties	Population Estimate	# of Persons Under the Age of 5	# of Licensed Facilities
High-Poverty			
Adair	25,377	1,218	6
Dunklin	30,119	2,108	6
Mississippi	13,586	720	3
Pemiscot	16,826	1,262	6
Ripley	13,564	895	1
Shannon	8,249	412	3
St. Louis City	308,626	20,369	143
Wayne	13,296	718	4
Washington	25,022	1,451	3
Low-Poverty			
Clay	242,874	16,030	47
Platte	101,187	6,172	12
St. Charles	395,504	24,126	103
St. Louis	996,726	57,810	211

Hypothesis 2. There is a difference in the percentage of license violations in early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

The percentage of license violations in early learning and developmental programs in high/low poverty counties was analyzed using a *t* test for difference of two independent means.

The analysis revealed no difference in the mean total violations of licensed facilities in high poverty areas (M = 67.63, SD = 67.40) and low poverty areas (M = 71.05, SD = 88.30); $t(80) = -0.194$, $p = 0.8464$ (see Table 22).

Table 22

Number of Violations Per Licensed Center Over Three Years

County	# of Violations Over 3 Years	# of Licensed Centers	# of Licensed Centers Evaluated	Average # of Violations Per Center
High-Poverty				
Adair	234	6	6	39
Dunklin	544	6	6	91
Mississippi	152	3	3	51
Pemiscot	589	6	6	98
Ripley	15	1	1	15
Shannon	183	3	3	64
St. Louis City	832	143	8	104
Wayne	85	4	4	21
Washington	84	3	3	28

Continued.

Table 22. Continued

Low-Poverty				
Clay	510	47	12	43
Platte	537	12	12	45
St. Charles	1009	103	12	84
St. Louis	1117	211	12	93

In most cases, the number of violations correlated to the number of licensed centers in a county. The greater number of centers the higher number of violations and the lower number of centers, the lower number of violations; but, the location of the centers, high/low poverty counties did not matter.

Hypothesis 3. There is a difference in the type of license violations of early learning and developmental programs available among high poverty/low poverty counties in the state of Missouri.

The researcher analyzed the percentage of different types of license violations of early learning and developmental programs available among high poverty/low poverty counties using a Chi-square goodness-of-fit-test. The analysis revealed a difference in the distribution of violations in high poverty areas and in low poverty areas; $\chi^2(4, n = 3181) = 189.22$, $p < 0.0000$. Facility violations accounted for 30% of low poverty violations and 36% of high poverty violations. Records violations in low poverty facilities accounted for 28% of the violations, and in high poverty facilities accounted for 19% of the violations. Seventeen percent of high poverty facilities violations were in operations, where only 13% of operation violations occurred in low poverty facilities.

Hypothesis 4. There is a difference in the number of high poverty/low poverty early learning and developmental programs in the state of Missouri that use a state approved curricula.

The researcher analyzed the percentage of early learning and developmental programs with state recommended curricula among high/low poverty counties using a *z*-test for difference of two proportions. The analysis revealed the percentage of facilities in high poverty areas with state recommended curricula (n = 26, 57.7%) was significantly different from the percentage in low poverty areas (n = 43, 32.6%); $z = 2.047$, $p = 0.0407$. The results, indicated to the researcher, the percentage of facilities in high poverty areas with state recommended curricula was significantly higher than that in low poverty areas. Many of the programs in high poverty areas were Head Start programs. At the time of the study Head Start used a state approved curriculum. Most of the facilities researched in high poverty areas used the High Scope curriculum, which was one of the four curricula approved by the state of Missouri. Similar to publicly funded educational programs, the support required adoption of approved or accredited curriculum.

Hypothesis 5. There is a difference in the cost of early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

The researcher analyzed the percentage of early learning and developmental programs in high/low poverty counties charging a high, medium, or low cost using a Chi-square goodness-of-fit-test. The analysis revealed the distribution of costs in high poverty areas and in low poverty areas were not the same; $\chi^2(2, n = 42) = 234.90$, $p < 0.0000$. Seven out of 10 counties had 100% of the cost in the low range. Most centers

did not charge a fee at all. In the low poverty counties, the cost per week for most of the facilities fell between a medium and high cost.

Hypothesis 6. There is a difference in the number of accredited early learning and developmental programs among high poverty/low poverty counties in the state of Missouri.

The researcher analyzed the percentage of accredited early learning and developmental programs in high/low poverty areas using a *z*-test for difference of two proportions. The analysis revealed the percentage of facilities in high poverty areas with accreditation (n = 26, 23.1%) was not significantly different from the percentage in low poverty areas (n = 43, 20.9%); $z = .215$, $p = 0.8300$. The results indicated the percentage of facilities in high poverty areas with accreditation was not significantly higher than that in low poverty areas. While the state of Missouri did not require early childhood programs to be accredited unless they were a part of the MPP program, some centers opted to gain accreditation. The accreditation process was done through outside agencies such as MOA or NAEYC. All the accreditation programs charged a fee (Missouri Accreditation [MOA], 2015; NAEYC, n.d.c). When gathering information about accreditation from facilities, one facility reported the cost of accreditation was too expensive and the center followed the NAEYC guidelines, but was not accredited through the program. The facility spokeswomen perceived an additional cost in weekly tuition would need to occur to cover the cost of accreditation.

Implications

The results of the study were unclear. While some of the hypotheses showed a difference between high/low poverty programs, other hypotheses did not. The researcher

found a difference in the number of programs available to families living in poverty and a need existed to increase quality early childhood programs. Without appropriate early childhood educational programs, children in high poverty areas were more likely to be retained in elementary schools, resulting in overage of 9th graders – often 16 or 17 years-of-age when starting high school, leading to higher school dropout rates (Schweinhart et al., 2005). Lack of quality early childhood education programs had become a predictor of failure to achieve grade level success, and led to high dropout rates. Being a 'dropout' impacted employment and earning possibilities, resulting in adult struggles adjusting to family and community. Previous research revealed the benefits of early education, especially for those living in poverty (Campbell et al., 2012). To the researcher, high-quality programs were essential and should be available to families to help give students assistance in pre-kindergarten skills, so children were ready to handle the increased academic rigor of elementary school.

Another area of difference was the type of violations. While the number of violations did not differ between high/low poverty facilities, the types of violations did. Facility violations were the highest violation types in both high/low poverty facilities. Facility violations accounted for 30% of low poverty violations and 36% of high poverty violations. The results revealed more record violations in low poverty facilities than high poverty. In low poverty, record violations accounted for 28% of the violations and in high poverty facilities it accounted for 19% of the violations. High poverty facilities had more operations violations than low poverty facilities. While the difference was not as large, high poverty violations accounted for 17% of the violations, while operations only accounted for 13% in low poverty facilities.

Recommendations

The purpose of this study was to complete a quantitative comparative content analysis on early learning and development programs in high-poverty and low-poverty counties in Missouri. The researcher intended to add to the then-current body of literature on early childhood education and the availability of high-quality programs in high-poverty and low-poverty counties across the state of Missouri. The researcher also intended to discern if programmatic inequality existed between high poverty and low poverty early learning and developmental programs in the state of Missouri.

After completing all data collection and analysis, the researcher understood the study only scratched the surface of issues impacting quality early childhood education. At the time of the research, no quality evaluation system existed in the state of Missouri to examine early childhood facilities. Only a small percentage of early childhood programs were being monitored and included those programs awarded the MPP grant. Public funding almost always required accountability standards, and this was evident in the researcher's analysis of accreditation. To truly gain a whole picture of the quality of early childhood education occurring across the state, more detailed studies needed to occur. While violation reports, curricula, cost, and accreditation gave the researcher some information regarding quality, to evaluate quality, school visits and observations needed to occur. Based on the results regarding each tested hypotheses, the researcher recommends further qualitative and quantitative studies examining:

- the qualities of high level early childhood education curricula,
- universal accreditation standards and the importance in licensing early childhood education programs,

- violations determined in early childhood education programs,
- training involved in monitoring and assessing early childhood centers to reduce violations and improve quality, and
- early childhood education program funding and the relation between funding and equity for all children.

To the researcher, quality was more than just violations, curricula, and accreditation. Studies showed teachers mattered regarding student outcomes (Stronge, 2018). To assess the quality of a program one needed to observe the relationships within the school, families, the environment, and the teaching and learning that occurred. About the time of writing of this dissertation, a new study was released exploring the inequity of education, pay, and accessibility to professional development between early childhood educators and k-12 educators (Long, Souto-Manning, & Vasquez, 2016). Therefore additional findings were in development.

Missouri, at the time of this study, in order to access Race to the Top funding, was in need of a QRIS to evaluate early childhood programs around the state. As of January 2017, the state of Missouri was in the planning stage to review a QRIS. According to the NCECQA (n.d.), “A QRIS is a systemic approach to assess, improve, and communicate the level of quality in early and school-age care and education programs” (para. 3). Other than being licensed by the state, then-currently no formal evaluation of the state’s early childhood programs, except those which were MPP schools, existed. Early childhood education was deemed important, but research showed the quality of the program made a difference.

A quality assurance system in place in child care mattered. The results of the study revealed, while there was no difference in the number of violations, there was a difference in the type. The researcher believed the difference could be because child care licensing rules were not always applied consistently across the state. Another possible study could look more in-depth at licensing reports, licensing agents, and if any formal quality assurance program exists, in the state of Missouri.

Finally, the researcher recognizes the need for qualitative and quantitative studies of politics and public policies related to developing and supporting early childhood education programs for all. The researcher recommends looking at how early childhood programs in the state are funded and the equity of the funding. An examination of how early childhood agencies are included at the state level in the developing of policies is also needed.

Conclusion

Studies found early childhood education helped set students on a trajectory for success in academics, professional growth, and long-term health along with an ability to close the gap for disadvantaged students. With Race to the Top, early childhood education became a priority for many states, and educating the young became a popular discussion at the federal, state and local levels (MODESE, 2012, p. 1). In 2009, Missouri launched an initiative called “Top 10 by 20”, aimed to place Missouri in the top 10 states in early childhood education (MODESE, 2012, p. 1). Yet, in the researcher’s experience, nine years later very little had changed. Discussions were still occurring but nothing was in place to evaluate early learning and developmental programs around the state. More studies needed to occur and be taken to the state level to show the importance of a quality

rating system for our young and most venerable, depending on professionals, to provide a quality education. Such studies might focus on the qualities needed to be an early childhood education teacher; the characteristics of quality educational leaders to develop and support educational environments designed to provide an equitable, quality education for all.

Another area of further research in early childhood education could be on the curriculum the state of Missouri deemed as quality curriculum. Further research needs to begin by defining what is quality early childhood education. While some of the curriculums recommended by the state, for example High Scope (2018) are grounded in years of research, the researcher was unable to find research to support such programs as the Creative Curriculum, and little evaluation of the academic benefits.

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Appendix A : Data Collection Sheet

County_____ Early Learning Center Name_____ # ____

Type of Violation **Total**

2014

Personnel_____ _____

Facility _____ _____

Health and Safety_____ _____

Records_____ _____

Operations_____ _____

2015

Personnel_____ _____

Facility _____ _____

Health and Safety_____ _____

Records_____ _____

Operations_____ _____

2016

Personnel_____ _____

Facility _____ _____

Health and Safety_____ _____

Records_____ _____

Operations_____ _____

Curriculum_____ Accreditation_____ Cost Per Week_____

Appendix B: High Poverty County Data

Good Afternoon,

Thank you for contacting Child Care Aware. Yes, you are able to use the State Fact Sheet. I just would like to inform you that next month an updated state fact sheet will be released (if you wanted to use the most up dated info).

If you have any questions, please give us a call at 800-42-42246.

Thank you,

Venus Matsuda-Caudle

Consumer Education Specialist

Child Care Aware®

A Program of Child Care Aware® of America

1515 N. Courthouse Rd - 2nd Fl., Arlington, VA 22201

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http://childcareaware.org |

Vitae

Tracy Jenkins Pelot was born and raised in Florissant, Missouri. She attended the Hazelwood School District, kindergarten-twelfth grade and then returned to her alma mater in 1997 after graduating from Lindenwood University. Tracy began her teaching career in 3rd grade at Barrington Elementary. After teaching 3rd grade for several years she moved to kindergarten where she found her passion. As an early childhood educator Tracy was involved in and sat on many committees, which focused on the young child and developmentally appropriate practices. With a passion for teaching and learning, Tracy went back to school and earned a Master's in Education and Masters in Administration from Lindenwood University. In 2015 Tracy won the Emerson Excellence in Teaching Award for the Hazelwood School district. Tracy left the classroom in 2016 to pursue a position as an instructional specialist for the Hazelwood School District. Tracy lives in Wentzville, MO with her daughter Kacie and husband Darren. Mrs. Pelot plans to graduate in December 2018 with a doctorate in Educational Leadership