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Effects of Early Childhood Education on Kindergarten Readiness Scores

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COLLEGE OF EDUCATION

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Administrator Leadership for Teaching and Learning

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Abstract

The purpose of this correlational study, which took place in a Central Florida school district, was to investigate the relationship between the quality of the early childhood education (ECE) programs and students' kindergarten readiness scores. Vygotsky's sociocultural theory, which states that a child's environment, culture, and language are related to academic and social development, was the theoretical framework for this study. Many ECE centers have been rated using the Early Childhood Environment Rating Scale (ECERS). Additionally, some children in those centers have been rated for kindergarten readiness using the Florida Kindergarten Readiness Screener (FLKRS) developed by the Florida Department of Education (FLDOE). The sample included 55 ECE centers that had an ECERS rating with students who had FLKRS scores. This study addressed whether FLKRS scores were positively correlated with ECERS ratings. Data were analyzed using the Pearson product moment correlation. Results indicated a positive and significant correlation between ECERS ratings and FLKRS scores. A white paper was prepared to raise awareness regarding the availability of quality ECE centers to young learners. Implications for social change include an increased number of quality ECE programs in local neighborhoods as well as increased awareness of the importance of an environmental rating scale to monitor program quality.

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Dedication

I would like to dedicate this page to my husband, Philip, who was an encouragement and an inspiration to keep me going. Also sharing in this dedication is my mother, Elizabeth Monrose. Thank you for providing me with an appreciation for lifelong learning. Most of all, thank you, Jehovah, for the grace to complete this project.

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Table of Contents

List of Tables

List of Figures

Section 1: The Problem

For the past decade, teachers, researchers, and stakeholders have joined efforts of the United States to abide by the National Educational Goals Panel, which states that all children will enter kindergarten prepared with the social and academic foundation needed to succeed by the year 2000 (National Education Goals Panel, 1997). This goal specifically targets the availability of quality preschool programs for all students with a special emphasis on the disadvantaged (Mahoney & Zigler, 2006). In 2001, Congress passed an additional law, the No Child Left Behind Act (NCLB) that requires all young children to be able to read at grade level by third grade in 2014. The Common Core State Standards (CCSS) has replaced the NCLB Act in the state of Florida and has been implemented in the 2014-2015 school year (Anderson, Harrison, & Lewis, 2012). The CCSS has placed more emphasis on comprehension with younger children in comparison with the NCLB, which emphasized phonics. Another distinction between the NCLB and the CCSS is that the latter includes writing goals whereas the former did not (Calkins, Ehrenworth, & Lehman, (2012). Researchers agree that despite the vast number of changes and advancements in the field, local and nationwide kindergarten teachers are finding that students are unprepared and therefore not motivated to learn (Gerstl-Pepin, 2006; New & Cochran, 2007).

The focus of this project study was to determine whether a correlation existed between the quality of an early childhood education (ECE) program and the kindergarten readiness scores of students as evaluated by the school within their first 30 days of kindergarten. The analytical tools used in this correlational study were the Early

Childhood Environmental Rating Scale-Revised (ECERS-R) to rate the ECE programs

and the Florida Kindergarten Readiness Screener (FLKRS) to rate the readiness scores of

the students. The voluntary prekindergarten (VPK) providers are given a Kindergarten

Readiness Rate (KRR), which measures how well they prepared four year olds for

kindergarten based on the FLKRS. This study was conducted in a rural Central Florida

county with a district population of approximately 200,000 kindergarten students in the

public school system. According to the Florida Office of Early Learning State Fiscal Year

Report (2013), there is a local need for an increase in the availability of high-quality

preschool programs, especially in economically challenged neighborhoods. The Florida

Office of Early Learning serves under the Florida Department of Education and is

required by Section 20.15(2)(i)1.F.S. to oversee early learning programs including the

school readiness program and VPK program at the state level.

In the 2009-2010 school year, there were 91 ECE programs registered in a local

county with the early learning coalition. Of those registered, 29% did not meet minimum

performance standards (Florida Office of Early Learning, 2013). Many of the

neighborhoods in this county are in need of both an increase in preschool attendance and

in high-quality preschool programs to better prepare young children for kindergarten

based on the Central Florida County Early Learning Coalition Providers List (Early

Learning Coalition of XYZ County, 2013). Results from the 2009 Florida Office of Early

Childhood Education showed that 65% of the enrollees were ready for kindergarten based

on the Florida Assessment for Instruction in Reading-Kindergarten (FAIR-K) scores.

The FAIR-K scores are used to determine a probability of reading success (PRS). The

PRS cutoff rate for readiness is at or above 67% (Lonigan, 2011). The findings

established that out of 179, 827 children who took the FAIR-K assessment, 35% were not

deemed ready for kindergarten.

   For the past 3 years, kindergarten screening data have indicated that children who

complete the Florida state-run VPK program outperform their peers. Upon approval, the

local kindergarten screening data were collected and analyzed to bring an awareness to

parents and educators in the Central Florida school district regarding the academic and

social environmental factors that influence their child's academic success. These

academic and social environmental factors are rated on the ECERS and this determines

the quality of the ECE program. This correlational study was done to determine whether

the quality level of the pre-K center relates to the students' kindergarten readiness scores.

Definition of the Problem

   There is a problem that disadvantaged and impoverished early learners face in the

United States and particularly in a rural area of Central Florida. Specifically, the local

problem is the lack of preparation that disadvantaged early learners experience. Due to

poor quality preschool education, a significant number of children enter kindergarten

without the basic academic and social skills needed to be successful learners. Researchers

have argued for the past decade that there is a need for quality early educational

opportunities for lifelong educational success (Burchinal, Vandergrift, Pianta, &

Mashburn, 2010; Fuligni, Howes, Huang, Hong, & Lara-Cinisomo, 2012; Winter &

Kelley, 2008). This study was done to raise awareness of the importance of providing

quality ECE to ensure academic and social success for young students locally and

nationwide. According to Perez-Johnson (2007), young children who encounter risk factors such as deprivation and poverty are vulnerable to adverse long-term effects. One of these effects is achievement gaps, which first emerge during the early childhood years. Therefore, this early stage is the optimal period for intervention. The longer the intervention is delayed, the wider the achievement gap becomes (Perez-Johnson, 2007).

However, researches have found that communities with a lower socioeconomic status (SES) have a greater shortage of quality ECE programs (Pianta, Barnett, Burchinal, & Thornburg, 2009). The lack of available quality ECE programs relates to a greater number of children entering kindergarten unprepared. Many parents may not be aware of the value of a quality prekindergarten education and turn to family or friends as caretakers until kindergarten. Moreover, in a recent turn of events, there has been a reduction of funding for ECE in our nation despite promises by President Obama to increase funding in this area (Lowenstein, 2011). This comes despite the statement from the National Assessment of Educational Progress (NAEP) that there is a positive correlation between the amount of money allocated to preschool programs and an increase in reading and math scores (Manna & Hartwood, 2011). Therefore, creative strategies must be used in our communities to ensure that all students get the opportunity to receive a quality prekindergarten education to allow them to enter prekindergarten eager and ready to learn.

Rationale

Evidence of the Problem at the Local Level

At the local level, Florida's State Board of Education Strategic Plan has a goal that states that by the 2017-2018 school year, there should be a 15% increase in students' kindergarten readiness scores. The FLDOE (2010) kindergarten readiness report indicated that students who attended VPK programs for the entire year were 65% more prepared for kindergarten than those who did not attend the VPK program. More recently, the 2012-2013 Florida Assessments for Instruction in Reading (FAIR) scores for XYZ County revealed that 27% of kindergarteners were not ready. The state average was 28%. Results indicated that the students were considered not ready and had less than a 67% probability of reading success at or above their grade level (FLDOE, 2014). There was a wide disparity in scores among counties, which ranged from 5% to 54% of students who were considered not ready for kindergarten based on the FAIR results. Even among these counties, each school within the counties showed a large disparity of scores.

There is a correlation between kindergarten readiness and academic success in the early years and beyond as shown by Abecedarian Project (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson (2002). There is a need for more high-quality ECE centers to increase the number of students who enter kindergarten prepared with the basic academic and social skills needed to succeed in school. Research indicates that disadvantaged or impoverished early learners are less likely than their peers from higher socioeconomic status to attend a quality ECE program that would prepare them for kindergarten success (Pianta et al., 2009). A significant number of disadvantaged students started kindergarten

unprepared, fell behind, and remained in that position throughout their high school career (Gerstl-Pepin, 2006). It has also been found that an overwhelming 50% of children have risk factors upon entering school such as minimal exposure to stimulating language, reading, storytelling, and other literacy-building activities that school success is built on (Burchinal, Roberts, Hooper & Zeisel, 2000).

ECE programs are offered in a variety of educational settings such as public schools, private organizations, family day cares, religious institutions, and Head Start. According to the National Center for Education Statistics (NCES) 2013 report, 56% of children ages 5 and younger who were not enrolled in kindergarten attended center-based care (Noel, Stark, & Redford, 2013). Florida passed its own universal prekindergarten program in 2005, which allowed many low-income and middle-income families to participate in an ECE program. This amendment stipulated that all four-year-olds in the state of Florida be given the opportunity to attend a free prekindergarten program. Decades of research continues to indicate that a significant number of these children start kindergarten unprepared, which causes them to fall behind and remain in that position throughout their high school career (Badian, 1998; Goodwin, 2012). Among the low-income families, informal child care is the norm, which provides a low-quality preschool education (Karoly, Ghosh-Dastidar, Zellman, & Perlman, 2008; Neuman, 2009).

Major changes will be necessary in these impoverished neighborhoods to bring about the necessary transformations in early learning centers (Barnett & Hustedt, 2003). There is also a need for parents and stakeholders to be aware of the importance of having early learners prepared and eager to learn upon entering kindergarten (Bodovski & Youn,

2010). There have been existing barriers in basic language and communication skills that may hinder students from being prepared for kindergarten, as shown by the FLKRS scores. These scores reveal the importance of finding the need areas of the student and creating early intervention strategies to build a strong academic foundation before kindergarten entry. A recent study revealed that early communication intervention results in positive social and academic outcomes (Kaiser & Roberts, 2011). This correlational study contributed to the body of knowledge needed to address this need by finding ways to bring an awareness of the importance of a quality ECE and to determine the causes of unpreparedness of ECE students upon their entry into kindergarten.

Evidence of the Problem From the Professional Literature

The quality and accessibility of an ECE program is important for low-income children for a number of reasons. Researchers agree that there is a correlation between the quality level of the preschool and children's social and cognitive development (Barnett, 1995; Greg & Sojourner, 2013; Melhuish, 2011). Low-income children are more likely than their peers to attend a low-quality ECE center, and students in more affluent neighborhoods are more likely to be enrolled in high-quality ECE centers (Coley, Leventhal, Lynch, & Kull, 2011). ECE programs are offered in a variety of educational settings such as public schools, private organizations, family day cares, religious institutions, and Head Start. In 2004, the Florida legislature established the universal prekindergarten program under Section 1003.21(1)(b) of the Florida constitution. This law created an increase in ECE programs to include both low-income and middle-income families. This program stipulates that all four-year-olds in the state of Florida be given

the opportunity to attend a free, high-quality prekindergarten program a year before they enter kindergarten. This study was done to raise awareness to all stakeholders of this program. In this correlational study, I examine research strategies that explore ways to increase the availability of ECE centers for all young learners.

Included in this population of low-income children are students from immigrant parents (U.S. Census, 2010). Ethnic minority children from immigrant parents were less likely than Caucasian children to attend preschool (Chiswick & DebBurnam, 2006). When it comes to immigrants, there are other demographic factors that may determine the likelihood of the child participating in preschool, including the number of siblings, the mother's work status, and the country of origin (Liang, Fuller, & Singer, 2000). It is necessary to raise awareness of the importance of preschool among immigrant families while targeting other families, as well.

Definitions

Economically disadvantaged: The status assigned to students who qualify for free or reduced lunch due to family income that is near or below the poverty line (O'Sullivan, Jerry, Ballator, & Herr, 1997).

Florida Assessments for Instruction in Reading (FAIR): The assessment system developed by the Florida Center for Reading Research (FCRR) in collaboration with Just, Read Florida! that provides teachers screening, diagnostic, progress monitoring information that is essential to guiding instruction (Florida Center for Reading Research, 2009).

Florida Kindergarten Readiness Screener (FLKRS)—a subset of the *Early Childhood Observation System (ECHOS)*: An observational instrument that is used to monitor the skills, knowledge, and behaviors a student demonstrates or needs to develop according to the Florida Assessments for Instruction in Reading (FAIR) (FLDOE, 2012).

High-poverty schools: Schools ranking in the top 25% of schools based on the percentage of students eligible for free/reduced lunch. Low-poverty schools rank in bottom quartile of schools based on free/reduced lunch enrollment (FLDOE, 2013).

No Child Left Behind Act (NCLB): Federal Act established in 2001designed to close the achievement gap between high- and low-achieving schools (Smith, 2012).

Number sense: When a child knows that numbers represent quantity and occupy fixed positions in a counting sequence, that child has number sense (Griffin, 2004).

Preschool children: The period directly before a child enters primary school (New & Cochran, 2007).

Quality: Pertaining to early childhood education programs, quality refers to program infrastructure or design and the overall environment in which the students are exposed (Mashburn et al., 2008).

Risk: The personal and environmental factors that adversely affect growth and development (Johnson & Waldfogel, 2002).

Scaffolding: The framework provided by the teacher for the learning development of the young learner (Bruner, 1984).

School readiness: A child's personal readiness viewed in holistic terms, incorporating dimensions that are important for school success including physical and

motor development, cognitive skills, language and general knowledge, and emotional and social competencies (Kagan & Neuman, 2008).

Stakeholders: Include but are not limited to policymakers, parents, teachers, and researchers (Gordon & Louis, 2009).

Socioeconomic status (SES): An aggregate of the individual SES scores of students in the same school, measured as an aggregate of parental education, occupational prestige and family income (Bodovski, 2010).

VPK Kindergarten Readiness Rate (KRR): The process used by the State Board of Education to determine the readiness rate of the public or private ECE's VPK provider (Snow, 2010).

Young students: Young students are defined by National Council of Teachers of Mathematics as children from prekindergarten through second grade (NCTM, 2003).

Significance

This correlational study was done to raise awareness within the Central Florida community of the importance of the availability of quality ECE centers for all students. All stakeholders involved must take on the leadership responsibility to make this a reality. Through this correlational study, parents were made aware of their role in the early prekindergarten years. In a similar manner, money, time, and research efforts should be given as everyone performs his or her role in the change that needs to take place in the early childhood educational system. Social change does not happen quickly, but with a consistent effort to bring awareness to this research topic, change can and will happen.

This correlational study also brought awareness to policymakers and others who may make many of the financial decisions. Many of these decisions are based on the popularity of the social issue at hand (Mitchell, 2009). Awareness on all levels should allow for an increase of available finances from the private and public sectors. This increase in finances will result in much-needed positive social change in local communities, and it will cause a growth in ECE programs. With a focus on leadership at all levels, parents and the community members will be encouraged to volunteer and come up with creative ways to fund ECE programs (Forry et al., 2011; Mitchell, 2009).

<div align="center">**Research Question**</div>

Studies have indicated that in the past few decades, children from disadvantaged or impoverished backgrounds have fallen behind in kindergarten (Kaiser & Roberts, 2011; Missall, Mcconnell, & Cadigan, 2006; Romano, Kohen, & Findlay, 2010; Vandell, Belsky, Burchinal, Steinberg, & Vandergrift, 2010; Weigel, Martin, & Bennett, 2010). There has been an increase in funding to make quality early childhood education centers available for all children. Despite this initiative on both the national and state levels, there remains an achievement gap and a lack of a quality early childhood education for all children. This lack of the availability of quality ECE, especially in impoverished neighborhoods, hinders many young learners from entering kindergarten prepared for academic success (Jacobson-Chernoof, Flanagan, McPhee, & Park, 2007).

The following research question guided this inquiry: How does the learner's kindergarten readiness, as measured by the FLKRS, correlate with ECE centers'

environment as measured by the ECERS-R? To examine this research question, the following hypothesis was tested:

Null hypothesis (H_0): There is no positive and significant correlation between the learners' kindergarten readiness scores measured by the FLKRS and the ECE centers' environmental rating scores as measured by ECERS-R.

Alternative hypothesis (H_1): There is a positive and significant correlation between the learners' kindergarten readiness scores measured by the FLKRS and ECE centers' environmental rating scores measured by the ECERS-R.

Review of the Literature

This section is a review of literature related to the quality of ECE programs and how they relate to the academic preparation of young children. I begin with providing background information on the theoretical framework of Vygotsky's social cultural theory. Research studies that incorporate Vygotsky's ideas regarding a child's environment, culture, and language are discussed. I present an overview of ECE to describe the local issues, nationwide initiatives, student assessments, multicultural ECE factors, quality ECE factors/environment, and parental involvement. I also review research on instructional quality, ECE funding, language and communication, numeracy, and students' behavioral/social skills. A combination of longitudinal and short-term studies is used to reveal a number of environmental and external factors that may affect a child's academic and social outcomes.

I used Walden University's online library, including Internet databases such as ERIC, SAGE, EBSCO Host, and Education Research Completeto find relevant articles. I

used the following key words: *kindergarten readiness*, *quality*, *early childhood education*, *disadvantaged*, *young children*, *language*, *numeracy*, and *environment*.

Theoretical Framework

The theory that was germane to the study of the preschool environment and its impact on the social and academic development of young children was Vygotsky's (1978) sociocultural theory. A theory, according to Creswell (2003), is an interrelated set of constructs (or variables) developed into propositions or hypotheses that specify the relationship among variables (p. 120). Vygotsky's (1978) theory stated that "social interaction is characterized as the relationship between the biological bases of behavior and the social conditions in and through which human activity takes place" (p. 124).

Vygotsky's sociocultural theory is based on three major concepts used to understand how a child's environment, culture, and language are related to his or her development. According to Vygotsky (1978), social interaction, the zone of proximal development (ZPD), and the role of language combine to create a preschool environment that fosters a child's development. From Vygotsky's perspective, children interact with each other and with their teachers through language or social speech that affords them the capability of comprehending the physical and behavioral makeup of their preschool environment. These elements contribute to the overarching belief by Vygotsky that shows a correlation that reflects the social competency of children.

The concept of the zone of proximal development (ZPD), as it relates to an early learner's development, defines the potential and actual development in children. Both the potential and actual development of children are important factors in understanding

Vygotsky's theory because it states that children may have acquired skills that may be immature. However, adults and peers may be able to nurture a level of maturity in developing these skills. The mature development of these skills is considered to be the actual development level of the child. In the ZPD, the potential development of children relates to the activities they are able to do only with the help of an adult. Effective ECE programs create an environment that is focused on developmentally appropriate language and communication skills for young children. On the other hand, the potential development relates to those activities children are able to perform independently (John-Steiner & Mahn, 1996). The framework provided by the ZPD shows the important role early childhood educators play in the internal and external development of early learners. This is reinforced by Vygotsky's statement that when children are in a warm and supportive environment, they increase in their social development skills.

Overview of ECE

Over the past two decades, the topic of quality prekindergarten readiness has been increasingly recognized for its importance to the academic success of young children. Recent studies suggest that the availability of high-quality ECE centers promotes both the short- and long-term academic, social, and cognitive development of children (Burchinal et al., 2010; Camilli, Vargas, Ryan, & Barnett, 2010). Several studies suggest that the quality of the classroom and the teacher play an important role in the academic success of young children (Magnuson, Ruhm, & Waldfogel, 2007; Mashburn et al., 2008; NICHD, 2002). The recent surge of research showing the significance of quality as it correlates to

academic success has created an increase in funding as well as more in-depth study of this topic.

Contrasting Views

Several researchers have argued against the significance and long-term effect of young children attending a quality ECE. Vandell et al. (2010) recognized that there is evidence on both sides concerning the social benefits of child care. Mashburn et al. (2008) conducted a large study that indicated that instead of the quality of the environment being the predictor of school readiness outcome, the level of the emotional and instructional support served as a better indicator. This view was recently supported in another study that suggested that the level of motivation associated with the child's emotional and behavioral rating served as a good predictor of school readiness (Berhenke, Miller, Brown, Seifer, & Dickstein, 2011). Berhenke et al. concluded that a trait of persistency showed a positive correlation with a child's school readiness outcome.

Despite the contrasting findings that show a strong correlation between behavior and other factors as indicators of school readiness, an overwhelming amount of evidence points to a quality ECE program as the dominant indicator of long-term educational success (Li, Farkas, Duncan, Burchinal, & Vandell, 2013). The 15-year longitudinal study by Vandell et al. (2010) showed that more than 10 years later, child care quality continues to be a predictor of cognitive-academic achievement. This study is significant because of the wide economic and geographical range of participants from the various types of ECE programs. Another recent study suggested that high-quality centers are related to the behavioral functioning in children (Romano et al., 2010). This study also

stated that when low-income children are exposed to a quality ECE center, physical aggression incidence was decreased.

The National Institute of Child Health and Human Development (NICHD, 2002) acknowledged that although some studies agree that the significance of the quality of the ECE center serves as a positive indicator, the results may be small by conventional means. Vandell et al. (2010) agreed that the cognitive-academic effect provided by a quality ECE is long-lasting and therefore significant. Early language skills are also a strong indicator that children with stronger language skills tend to have better social skills and fewer behavioral problems as argued in recent years by researchers (Cohen & Mendez, 2009; Kaiser & Roberts, 2011; Missall et al., 2006). In addition, the study conducted by the Florida Center for Reading Research at Florida State University cautions the use of kindergarten reading state assessments as the only predictor of academic. Instead, emphasis should be placed on closely monitoring all students at various grade levels to ensure that they remain on grade level (Al Otaiba et al., 2011).

Local Overview

In a Central Florida community, the only available preschool program offered is with a particular elementary school. This elementary school has limited space and is the only formal preschool program in the neighborhood. Parents have very limited options and can choose to drive their children to another neighborhood preschool or choose not to enroll them in any program. In disadvantaged neighborhoods, it is sometimes difficult for parents to transport their children to other neighborhoods, which gives them less favorable options for educating their children (Shivers, Sanders, Wishard, & Howes,

2007). With the provision of quality ECE programs, children can receive a solid

foundation of basic academic skills needed for future success in school and in life.

Nationwide Initiatives

NCLB pays specific attention to the disadvantages that young children from low

income families and those who are English Language Learners (ELL) might face.

Following the NCLB came another initiative, Good Start, Grow Smart (GSGS), targeting

early childhood education with the goal of determining whether young children are ready

to learn upon entry to kindergarten (Bagnato, McLean, Macy, & Neisworth, 2011). These

initiatives, as well as the National Education Goals under school readiness, are focused

on ensuring that all children have access to high-quality and developmentally appropriate

preschool programs to prepare them for kindergarten (National Education Goals, 1999).

A study by LoCosale-Crouch et al. (2007) revealed that programs with the poorest quality

had the highest concentration of children in poverty, which led to more risk factors. More

recently, the United States is moving toward fully implementing the CCSS from K-12

with an emphasis on preparing children for college and career (Bomer & Maloch, 2011).

This has implications for prekindergarten programs as K-12 curricula become more

rigorous (Kendall, 2011). Researchers argued that the quality of education delivered in

the educational environment of early child care is directly related to the academic success

of the child (Burchinal, Nelson, Carlson, & Brooks, 2008; Conner, Morrison, &

Slominski, 2007; Mitchell, 2009).

Despite national, state, and local efforts, quality ECE centers are not prevalent in

disadvantaged neighborhoods with similar demographics to a local elementary school.

Some additional studies further reveal the positive correlation between the amount of money invested as it relates to a high-quality early childhood education (Bauchmuller, Gortz, & Rasmussen, 2014; Heckmann & Masterov, 2007). Students who enter kindergarten from lower socioeconomic groups in Florida are scoring 50-60% lower in math and reading later in their school careers than those from higher socioeconomic groups (Florida Department of Education [FLDOE], 2011). These and other important factors have inspired me to effect social change that may close the academic gaps that exist for disadvantaged youth and make available quality ECE programs for all children through various kindergarten readiness programs, including Head Start and voluntary kindergarten programs (VKP) in this rural school district of local county in Central Florida.

Student Assessments

The evaluation of school readiness is measured using a number of formal and informal assessment tools that range from play theories and observations (Long, Bergeron, Leicht, Doyle, & Gordon, 2006) to broad-based learning domains (Augustyniak, Cook-Cottone, & Calabrese, 2004) to specific skill assessments (Brown & Mowry, 2009; Hatcher, Nuner, & Paulsel, 2012). According to the Florida Department of Education (2011), there was a significant difference in kindergarten readiness scores among children who attended VPK programs and those who did not (Goodwin, 2012; Phillips, Lonigan, & Wyatt, 2009). Of the students in Florida who did not attend a VPK program in 2009, 45% or 66,832 were not ready for kindergarten (FLDOE, 2011). In the Central Florida County where this study was conducted, 29% of the 91 ECE providers

did not meet minimum performance standards (Florida Office of Early Learning, 2011).

To determine kindergarten preparedness, the FLDOE (2010) has developed assessment

tools to conduct statewide kindergarten screening. To be considered ready for

kindergarten, children should be scoring at the demonstrating or emerging/progressing

level on the Early Childhood Observation System (ECHOS) and scoring 67% or higher

on the reading success assessment. The components of these assessments were identified

based on extensive research as discussed in the Report of the National Reading Panel:

Teaching Children to Read (NICHD, 2000), which indicated that phonemic awareness,

phonics, fluency, vocabulary, and comprehension should be included.

Multicultural Factors

      According to researchers, once children enter kindergarten without the basic

foundational academic skills, the risk increases for a sustained academic gap throughout

their school career in comparison to that of their peers (American Federation of Teachers,

2003; Pigott & Israel, 2005). This evidence shows that the existence of a steady

achievement gap is prevalent among schools and districts that have a higher percentage

of at-risk students including those who are ELL. Florida has surpassed many other states

in ELL diversity and ranks third in the nation with over 250,000 ELL learners. This study

was conducted in a Central Florida school district where 54% of the school's population

is of Hispanic descent in comparison to the state of Florida, which has a 22.5% Hispanic

population (FLDOE, 2011; U.S. Census Bureau, 2010). As reported by the FLDOE

(2011), some communities in this county have some of the highest numbers of

immigrants, as well as a high percentage of students on free and reduced lunch compared

to the state of Florida. This district scored significantly lower on the Florida Assessments for Instruction in Reading (FAIR) and Early Childhood Observation System (ECHOS) assessments for kindergarten readiness as compared to the state, according to the FLDOE's No Child Left Behind (NCLB) 2009-2010 report. Minority ethnic children are less likely than their Caucasian peers to attend preschool. This is largely due to their cultural beliefs and perceptions regarding preschool education (Yamamoto & Li, 2012). The rapid increase of immigrant children in the United States today makes it increasingly important to monitor these students' educational standing (Hernandez, Denton, & Macartney, 2009). Immigrant children account for about 23% of all children, according to the U.S. Census Bureau (2010). This figure includes those with at least one foreign-born parent.

Researchers agree that the perception of the importance of quality preschool education may vary depending on cultural and demographic factors. It is important to note that those factors determine enrollment or child care selection by the parent (Shlay, 2010). Therefore, in areas where parents may be from lower socioeconomical status (SES) backgrounds or from Hispanic backgrounds, a stronger effort should be made to make the parents aware of the importance of their child being prepared academically and socially for kindergarten. This is especially important because there may be a correlation between the quality of the ECE program and the students' kindergarten readiness scores. If students are able to attend a program that prepares them adequately for kindergarten, this may increase their chances of entering kindergarten with the basic academic and social skills needed to be successful (Wanless, McClelland, Tominey, & Acock, 2011).

ECE Quality/Environmental Factors

The issue of quality ECE programs is increasingly important not only to this local

Central Florida district but to the United States, as more parents enter the workforce due

to welfare reform (Henry, Gordon, & Rickman, 2006). An estimated 64% of mothers of

young children are currently in the workforce (U.S. Department of Labor, 2011).

Therefore, ECE has seemingly become a necessity in the United States (Lowenstein,

2011). Researchers noted that this increases the number of children placed in early care

programs and increases the need for quality ECE placement for a growing number of

children (Henry et al., 2006; Lowestein, 2011; Mitchell, 2009).

Recent studies indicate that a majority of disadvantaged youths do not have access

to quality ECE centers (Henry et al., 2006; Turney & Kao, 2009). Despite the prevalence

of recent research on the effects of a child's early education environment on brain

development, parents from low SES backgrounds tend to choose preschools based on

cost or convenience rather than quality (Duncan, 2013). Study results have shown that a

high-quality preschool equates most frequently with higher levels of academic success in

reading and numeracy, as well as lower incidence of behavioral problems. Parents may

not be aware of the importance of a quality ECE on the future academic success of their

children (Anders, et al., 2012). Social class and cultural differences determine parents'

perceptions of high-quality preschools (Lareau, 2003; Yomamoto & Li, 2012). Parents

from lower income backgrounds rely predominantly on cost when choosing child care

(Duncan et al. 2013). Parents may alternatively turn to informal child care that may be

available in impoverished neighborhoods such as a relative or friend, home daycares and

struggling private or faith-based ECE centers. According to Yomamoto and Li (2012), parents' perception of high-quality preschools varies based on cultural differences so they may choose options that may not prepare their children with the basic skills needed to succeed in school.

According to the National Center for Children in Poverty (2008), the United States has the highest number of children living in poverty among industrialized countries, with figures as high as 18%, which is more than 13 million children in 2007. Ou and Reynolds (2009) stated that children in poverty-stricken neighborhoods tend to have a significant amount of risk factors that may lead to lower academic gains than those of their peers in middle- or high-income neighborhoods. The families of these children are affected by risk factors such as unemployment, low wages, lack of education, and other adverse mental and physical variables. A longitudinal study which followed children ages four to thirteen in 2003 found that more risk factors experienced by a child equated to poorer developmental outcomes (Sameroff, Seifer, Baldwin, & Baldwin, 2003). The more risk factors a young child has relates to a negative impact on the child's literacy development (Cadima, et al., 2010). There is, therefore, a need for an increase in the availability of quality ECE centers in all neighborhoods regardless of its SES (Anders, et al., 2012). Only 65% of Florida students entered school with the basic skills needed to read based on the FAIR 2009-2010 results.

There are a number of factors that serves as indicators of programs that adequately prepares students for academic success. This includes the quality of the physical structure, teachers, and curriculum in the program (Howes, et al., 2008). Parents

and educators should be aware of the importance of the academic and social factors that contribute to a high-quality ECE program. For many students in small rural cities in this local county, the options for quality ECE programs are minimal. Although the local ECE coalition is increasing initiatives to support ECE providers, a significant amount is still in need of training opportunities and funding to improve quality and availability in the community. Numerous researchers agreed that funding to both private and public organizations can help create new programs and in turn create an increase in educational options for parents(Barnett & Hustedt, 2003; Hall, et al.,2009; Harrist, Thompson, & Norris, 2007; Roach, Kim, & Riley, 2006).

As shown through the Cost, Quality, and Child Outcomes Study Team (1999), positive cognitive developmental outcomes are dependent on quality child care environments, while a poor-quality environment is often related to negative cognitive outcomes in young children (National Institute of Child Health and Human Development Early Child Care Research Network (NICHD), 2000b, 2002, 2003, 2004, 2005). Therefore, it is imperative that stakeholders continuously seek to bring an awareness of the importance of investing time and money to insure that quality child care is available to all children (Fitzpatrick, Grissmer, & Hastedt, 2011). The environment, language and culture of young students have an effect on their development as stated by the by Vygotsky's social cultural theory (Winter & Kelley, 2008). Therefore, there should be an emphasis on it is important and should be greatly emphasized that quality preschool education being available on a broad scale to as many children as possible. This improves the social and academic development of young children (Vygotsky, 1978).

In this correlational study, the environment and the cognitive level of young children were rated using the Early Childhood Environment Rating Scale-Revised (ECERS-R) which is a research-based instrument. One of the more recent and popular quality indicators for the assessment of the quality of early child care centers is the ECERS-R (Anders, et al., 2012). It is a research-based instrument that is widely used for assessing school readiness programs (Harms, Clifford & Cryer, 2005). The Florida Department of Education measured school readiness scores using the Florida Kindergarten Readiness Screener (FLKRS). The FLKRS is made up of a subset of the Early Childhood Observation Systems (ECHOS), an observational instrument that is used to monitor the skills, knowledge, and behaviors that a student demonstrates or needs to develop. It also combined the score from the FAIR. The data gathered from using these instruments in research can be used by the teacher to develop an awareness of the child's educational needs and to share with parents, as well as for district purposes of monitoring kindergarten readiness (Santi, York, Foorman, & Francis, 2009).

Another important school readiness objective in the National Education Goal of 1990 states that parents are "their child's first teacher" and should allot a certain amount of time each day to that endeavor. Parents should take some of the responsibility to ensure that their child learn (National Education Goals, 1991a). Therefore, parental involvement should be encouraged in the educating of young children regardless of whether or not the child is able to attend an ECE program (Foorman, et al.2006). Fletcher andFrancis, (2004) also strongly suggest that the role of parents as the child's first teacher should be encouraged. Thus, with an emergence of parental responsibility, there is a

growing need for parents to be trained in how to teach their children (Sénéchal &

LeFevre, 2002). More training should be available and easily accessible for parents to

encourage their children in this endeavor through local and online modalities (Hamre, et

al., 2012). This need is apparent because a significant number of students who do not

attend Pre-K in Florida are scoring lower on kindergarten readiness assessments than

their peers. Although this central Florida county's Office of Early Learning makes

parenting classes available, many parents are not aware and therefore do not participate in

the programs. Parents are in need of courses and training to help them with strategies and

tools to help prepare their children for academic success. Recent studies have posited that

when parents were involved academically in the home, the result was an increase in

academic performance for the child (Harris & Goodall, 2008; Howe et al., 2012; Mistry,

Benner, Biesanz, Clark, & Howes, 2010).

There has been a struggle among educators and researchers to come to a

consensus in identifying key components that qualify for high-quality ECE programs and

centers. Once the definition of quality is clearly defined, our nation will be more

equipped to measure our goal for all children to start school prepared and eager to learn

when they enter kindergarten or at least give them an equal opportunity to do so. There is

a need to look not only at the ECE environmental factors, but also the surrounding

external environmental factors when analyzing the need of quality ECE centers in Central

Florida.

There has been a steady increase of ECE programs in the United States as more

parents enter the workforce primarily due to welfare reform mandating that women return

to work (Harrist et al., 2007). Due tothis welfare reform, many families from low-SES

backgrounds are forced to have their children attend early child care outside of the home

(Senge, 2000). This had a local impact as indicated by a dramatic increase in the number

of children from lower socioeconomic backgrounds in need of ECE placement in central

Florida communities. However, many ECE programs in lower SES neighborhoods may

not be at the same level of quality as those in more affluent neighborhoods since the

higher quality ECE programs are most often located in the more affluent communities

(Burchinal et al., 2008; Roach et al., 2006). It is unlikely for most parents from low-

income neighborhoods to be able to afford the better or higher-quality programs (Barnett

& Hustedt, 2003). There is also the issue of the parents placing more emphasis on cost

rather than quality for lack of knowledge regarding the important role a quality ECE

plays in the future academic success of their child (Burchinal, et al., 2008; Pianta et al.,

2009; Torquati, Raikes, Huddleston-Casas, Bovaird, & Harris, 2011).

Students from disadvantaged backgrounds are most likely to attend a poor-quality

early childhood education program (Dearing, McCartney, & Taylor, 2009). Efforts

should be targeted to increase program quality (Mashburn et al., 2008). Recent studies

show that the early years are the critical developmental stages of a young child's brain.

The placement of these children into quality ECE programs can become a determining

factor of future academic success. This stage is also considered to be critical because

delays in language and communication skills are some of the earliest indicators of

academic and social deficits (Kaiser & Roberts, 2011). In fact, children who attend ECE

programs in environments that do not have these high quality indicators may suffer

developmental delays in their school careers (Barnett & Ackermann, 2006). By participating in a high-quality preschool program, participants are less likely to be placed in a special education program or be retained in a grade (Barnett & Hustedt, 2005).

High quality educational experiences are imperative during the early years if children are to experience long-term educational success (NICHD, 2005c). However, it is also important to note that middle-class students also benefit from having high-quality preschool programs. A plethora of recent studies posit that students who enter kindergarten unprepared are more likely to encounter educational struggles throughout their school career (Burchinal et al., 2010; Romano et al., 2010). There is a correlation between the quality of the ECE and the level of preparation of a student entering kindergarten (Early et al., 2010). Stakeholders such as teachers, community leaders, parents, preschool directors, and principals have recently drawn attention to the research that shows the correlation between program quality and school readiness.

Instructional Quality

A number of researchers agreed that there is a positive correlation between instructional quality and student academic performance (Burchinal, et al., 2008; Burchinal et al., 2010; Conner et al., 2007). The role of an ECE teacher in creating a positive learning environment includes social and emotional support which is imperative for the academic and social success of young children (Jennings, 2014). The emotional and social interactions between a teacher and a student are significant in determining instructional quality (Hamre, et al., 2012). Consistency also plays an important role in a child's school experience. It has been found that students with teachers who are

consistent in being emotionally supportive shows greater improvement in their academic and social skills (Curby & Brock, 2013). In a study by Burchinal, et al (2008), students showed academic gains after a one full year in preschool, when their teachers "interacted positively with students and promoted the use of language in the classroom and provided scaffolding, coherent instruction, and contingent informative feedback" (p. 150). This research showed a need to create an awareness, not only of the importance of the quality of the ECE in general, but of a need to look into the quality of the teacher, as well.

One of the quality indicators of a high-quality ECE environment is the level of higher-level thinking skills used by the students. According to Kagan and Neuman (2003), emphasis should be placed on the infrastructure of the ECE environment and on teacher credentialing in order to increase quality. A recent study by Mashburn et al. (2008) found that when teachers were given specific professional development on how to improve emotional and instructional interactions with students, which resulted in an increase of higher-level thinking skills. This increase in higher-level thinking created an improvement in the children's early literacy, language, and cognitive development. These higher-level thinking skills are needed for academic success throughout the students' lives. When teachers give children additional emotional support, this resulted in a positive social development (Burchinal, et al., 2010).

As reported by Phillips et al. (2009), teachers who taught students in low-income ECE centers were likely to treat students roughly and with little warmth than teachers in more affluent communities. The programs in the lower-income communities were more likely to hire less educated teachers and paid them less than programs serving middle and

upper income children (Marshall, 2004). The environment for students in the lower income bracket also reported a less stimulating environment as compared to the higher-income children (Early et al., 2010). Therefore, the quality of teachers of young children is an essential component for high quality preschool determination. Social and academic gains cannot be attained without high-quality teacher-child interactions (Burchinal, et al., 2010; Fuligni, et al., 2012).

The results from a study by Dennis and O'Connor (2013) revealed that there is a significant relationship between the organizational climate and the quality of a preschool. The preschool with a relational organizational climate among teacher leaders and colleagues related strongly to the quality of the classroom process. Therefore, when looking at quality ECE centers, seeing the importance and correlation between a school's climate and its quality should be considered when implementing program strategies. This is an area that should be given more attention considering the important role of teachers in a child's academic and social development. Currently, in the ECERS-R evaluation, teacher interaction with the students is embedded into the program's evaluation.

ECE Program Funding

There is a growing need for funding to bring about the means that would allow-quality prekindergarten programs to emerge to meet quality ECE demands, especially in disadvantaged communities. According to the US Census (2010), 11% of people in this central Florida county are below the poverty level. However, an astounding 20% of people in this small rural city where a particular elementary school is located, 20% of the population are below the national poverty level. Therefore, this correlational study

attempted to divulge the need to bring an awareness to parents, ECE directors, and all involved stakeholders in hopes of increasing government funding to aid in the effort of providing and making readily available quality child care programs to all learners; especially those from disadvantaged backgrounds. The amount of financial investment that the U.S. puts into the ECE programs is relatively low in comparison to that of other nations (Cost Quality and Child Outcomes Study TEAM, 1995; Meyers & Gornick, 2003). Parents in the United States are expected to pay about 60 % percent of the ECE cost for their child's care. However, parents from a lower SES stated that cost played a determinant role in their deciding on a quality program from their child (Duncan & Sojourner, 2013). Researchers noted that by offering a high-quality education for all children, taxpayers end up saving money in the long run (Barnett, 2003; Burchinal, et al., 2010). In fact, by investing in early care and education, it is shown that there is a positive correlation between quality ECE and higher economic impact (Lui, Ribeira, & Warner, 2004; Mitchell, 2009; Warner & Lui, 2004). Researchers concur that by participating in a preschool program, tax burdens can be reduced due to savings on welfare and the criminal justice system.

Funding is important because programs that pay teachers a higher wage have better training programs (Phillips et al., 2000). In the study by Torquati et al. (2011), a distinction was made between poor and low-income children and families. Students of low socio economic backgrounds may have qualified for Head Start or other state or federally funded programs. However, low-income families may not have been be able to afford a good quality child care and may resort to a lower quality of child care programs.

In those cases, it was suggested that policies should target the lower-income families and provide them with subsidized care as well as create incentives for choosing high-quality child care options. Family income is a predictor of the quality of education a young children receive in ECE programs. According to Torquati et al. (2011), quality ECE programs tended to be available for either those students who were at the lowest economic scale or at the highest. This left those in between more susceptible to attending a poor-quality ECE program (Anders et al., 2012). The benefit of this research was to bring the awareness of the importance of a quality ECE program for the success of all students.

Students' Language and Communication

Language is an important component in the development of young children's language and reasoning skills. It serves not only as a form of communication with others but it also serves as the framework by which children think and comprehend the world around them. Researchers have stated that when children enter kindergarten with a strong literacy foundation, teachers can then expand their knowledge base on this foundation (Burger, 2010; Kaiser & Roberts, 2011). According to Goldstein (2011), particular attention to literacy development is pertinent to the reading success of young children who are at risk. Recent literacy research has shown the efficacy of literacy programs for students' reading success (Allor, Mathes, Roberts, Cheatham, & Champlin, 2010; Browder, et al., 2009;).

Early detection and targeted intervention, when used timely and appropriately, enabled students to get back on track early on in their school careers (Dunst, Meter &

Hamby, 2011; Goldstein, 2011). There had been an increase in the awareness of the role that early prevention and intervention have on ensuring student success (Shanahan & Lonigan, 2010). Without early detection and strong interventions, the remedy becomes increasingly overbearing and laborious (Goodwin, 2012). Therefore, the early childhood education years should focus heavily on language and communication (Mc Wayne, Wright, Cheung, & Hahs-Vaughn, 2012). Children with language impairments can benefit from receiving intervention in their natural environments, not only in the formal classroom setting (Kaiser & Roberts, 2011).

The quality of the teacher and the ECE center as a whole, determines the level of reasoning development through the use of language and communication (Dickinson, Golinkoff, & Hirsh-Pasek, 2010). When prekindergarten teachers encourage students to use communication and language to develop their reasoning skills, the learning is retained for a longer period of time (Burchinal et al., 2008). Teachers can use scaffolding to build upon these skills. When scaffolding is used along with specific praise, children showed higher language and reading skills. Positive teacher interaction is needed and provides opportunities for children to engage in academics and thereby promote language skills for young children (Bodrova & Leong, 2006; Fuligni, et al., 2012; Kurtz, Boelter, Jarmolowicz, Chin, & Hagopian, 2011). When the environment is positive, children will be more comfortable sharing thoughts and feelings which will then give the caretaker the opportunity for more open communication. Congruent with Vygotsky's theory, Bodrova and Leong (2006) contended that babies are born with the capacity only use their lower mental functions. However, the use of their higher mental functions is developed as they

begin interacting with their caretaker through language and other cultural activities. High quality programs are needed which focus on language interaction between teacher and student to ensure that early learners enter kindergarten not just eager to learn but ready and prepared with the cognitive ability to succeed not only in kindergarten but for the rest of their academic careers (Sylvester & Kragler, 2012).

There are other competencies that students need to develop when learning to read that will augment early reading success. Students must develop print conventions such as page turning, awareness of speech sound differentiation, understanding that letters represent sound, development of a working vocabulary, and developing phonemes (Neuman, 2009). Although adults comprehend the basic logical concepts of same/different and cause/effect, young learners must learn these basic concepts (Cryer, et al. 2003). When a student enters school with a rich letter recognition and phonemic awareness, the early reading process is quicker and less arduous (Goodwin, 2012). The student then becomes a better reader and in turn develops a love for reading and reads more than their struggling peers. This affects students in the long run because students who are poor readers by the end of first grade are not able to catch up to their peers by the end of elementary school (Torgesen & Burgess, 1998). The stronger readers continue to stay ahead and succeed in school as they are able to more easily learn more vocabulary and general knowledge. Early detection and intervention will decrease the reading gap for students who may have entered kindergarten behind academically.

ECE Numeracy

When creating a high-quality program, mathematics should be a critical component in establishing a balanced educational foundation. According to the National Council of Teachers of Mathematics (NCTM), children's mathematical foundation is established in their younger years between the ages of birth to four years (NTCM, 2003). Teaching children mathematical concepts by using their everyday experiences allows for a natural curiosity and eagerness. This, in turn, increases their analytical skills to explore the use of patterns, measurements, shapes, comparisons, basic number sense, and mathematical concepts (Fitzpatrick & Pagani, (2012).

Many of these mathematical concepts are used in a child's ordinary everyday life. However, parents, as well as caretakers, need to be aware of how to integrate these concepts into a child's preschool curriculum. Some suggestions were simple activities such as singing songs that have directions to teach a range of mathematical ideas. Books and stories that discuss sharing or counting items also help in the development of numeracy concepts. It was also recommended that teachers use mathematical vocabulary in everyday activities. A study conducted by Clements and Samara (2008) stated that the quality of the preschool mathematics environment determined the achievement level of the young learner. The study used a research-based curriculum in which teachers were trained. The result was an increase in not only the quality of the mathematics environment but the quantity as well. In this study, it was effectively shown that their was a correlation between professional development and a research-based curriculum in creating a learning environment in mathematics.

A large percentage of teachers and parents may be unaware of the vast number of opportunities they have throughout the school day to add mathematical concepts to their existing activities. The stakeholders such as teachers, parents and school administrators/directors need to be knowledgeable about the many ways and opportunities that abound to increase the students' mathematical development. When teachers are given a set of mathematical ideas and activities and trained on ways to deliver them to their students, this allows for the students to be given a solid foundation in mathematics. As suggested in recent study, the researchers agreed that the design of professional development programs for ECE teachers is imperative to quality mathematical concepts delivery (Howe et al., 2012).

Before children enter kindergarten, many already have the capacity to comprehend a high level of mathematical concepts (Starkey & Cooper, 1980). Therefore, parents should be made aware of the importance of teaching numeracy skills to their children from infancy. Children are spontaneously able to recognize a minimal amount of spatial and number sense for a small amount of objects at an early age. Parents should be given simple ways to incorporate mathematical concepts into everyday activities. Many parents may not be aware that the local county's early learning coalition provides parental training on how to teach various topics to their young children. Unfortunately for many parents, the distance and convenience may be a problem since there is only one office location that serves the entire county.

Students' abilities to communicate through language, symbols and pictures develop rapidly during these years (NCTM, 2003). Therefore, a high-quality ECE

program should include numerous opportunities for children to use mathematical concepts in a manner that is kid friendly. The ECERS-R rating guide termed this as "informal opportunities" and encourages teachers to use "number talk" to increase students' awareness of mathematical concepts. Number talk is not only encouraged but given credit and special rating in environment rating scales (Cryer, 2003). If teachers are constantly being evaluated in their use of number talk, they will use it more frequently and, in turn, will create more opportunities for students to acquire a solid mathematical foundation (NCTM, 2003). A study by Yasil and Jones (2012) suggested that students from lower economic status needed a numeracy rich environment in order to close the mathematics gap of their peers. These tips were intended for ECE teachers to use to encourage students to become familiar and comfortable with mathematical concepts and vocabulary. This included asking pre-planned questions that can be added to the current curriculum and used in conversation to pique the student's interest to gain new understanding and concepts of the familiar day-to-day activities.

There are many center activities that teachers currently use daily that incorporate mathematical concepts through counting or measuring. They included activities from centers such as sand and water play, blocks, games and puzzles, dramatic play, music and art. To help facilitate these mathematical strategies, the school should support teachers in the endeavor to create a rich academic environment. The following is a list of suggestions by NCTM (2003) of activities teachers can use to encourage children to use mathematical concepts throughout the day:

- sorting

- reasoning

- representing

- recognizing patterns

- following directions

- using spatial visualization

Students' Behavior/Social Skills

The lack of quality prekindergarten education has also been associated with increased behavioral problems. Students benefit from the structured environment that accompanies most quality ECE programs. In fact, students who attended a high-quality preschool had higher cognitive-academic achievement and less externalizing behavior (Vandell, et al, 2010). A 15-year longitudinal study found that at the age of 15, this gap still remained (Belsky, Vandell & Burchinal, 2007). Because children from higher SES backgrounds attend better quality programs, there is a correlation between a parent's education level and students' social competence and behavior (Burchinal, et al., 2008).

Empirical research revealed that students whose parents had less than a high school education were rated as having better social skills and behavior if they attended a quality prekindergarten program (Heath et al., 2014; Sticht & McDonald, 1990). More recent research findings suggested that high-quality classrooms improve social skills and reduce behavior problems (Bodoski & Youn, 2011; Longstreth, Brady, & Kay, 2013). Bodovski and Youn (2011) also stated that behavior proved to be an indicator of a student's academic achievement in reading and mathematics as reported by teachers in the first grade. The research also showed that the more hours a child spent attending an

ECE center, higher negative social skills and behaviors were reported. In a recent study by Gerard & Girolametto (2013), they found that the four-year-old participants' behaviors showed a correlation between a lack of social skills and the attainment of pre-reading skills. Therefore, although a preschool program is structured to improve students' behavior, the role of a parent is also important for improving students' social skills.

Implications

The quality of a childhood education center has an effect on the preparedness of students' kindergarten readiness scores (Burchinal, et al., 2010). Research has reflected that there is a lack of quality education centers and options for prekindergarten students. Students from disadvantaged neighborhoods do not have the opportunity to attend quality prekindergarten centers (Kohen, 2008). It is also shown that because of this, a significant number of disadvantaged children enter kindergarten unprepared. However, a more recent study revealed that students who began their school career with risk factors close the achievement gaps if they received high-quality early childhood educations (Vandell et al., 2010).

Therefore, I anticipate that this correlational study will bring an awareness among various stakeholders of the importance of early-childhood education to the academic success of children from kindergarten to high school and in life. It is also anticipated that the data collected will show a positive correlation between the quality of the ECE program and the kindergarten readiness scores of preschool students. The results derived from using the ECERS-R may encourage more programs to self-assess using the same or similar assessment tools. Early learning coalitions may also be able to predict which

programs may be in need of additional assistance. As these research findings suggests, stakeholders will be aware of the specific needs of ECE programs and seek to attain quality for each child. As awareness increases regarding the importance of the teaching and learning environment of preschool programs, more emphasis will be placed to ensure that students are given a high quality academic foundation before entering kindergarten.

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

In this section, the shortage of quality preschool options that is faced by poor and minority children throughout our nation were discussed. Other environmental factors that affect young children such as parental roles, behavior and social training, and ECE programs' quality indicators were expatiated. At the local level, it was discussed how an increase in funding can help create additional ECE programs in disadvantaged neighborhoods.

Section 2 discusses the methodology used in this project study. The quantitative design approach will be explained in depth including a rationale for choosing a quantitative correlation design. Additionally, this section will discuss the correlation between the ECERS-R and Kindergarten Readiness Rate (KRR) which is based on the FLKRS scores. This section will also cover the data collection and analysis plan for this study.

Section 2: The Methodology

This correlational study was conducted to determine whether there was any correlation between the quality of the ECE programs and the kindergarten readiness scores of students in a local Central Florida county. Evaluating these results ensured that providers were preparing their students for kindergarten entry with the basic academic and social skills needed for success. Results from the Early Childhood Environment Rating Scale-Revised (ECERS-R) and the Kindergarten Readiness Rate (KRR), which is based on the Florida Kindergarten Readiness Screener (FLKRS), were used to determine the possible correlation between the program's quality and the students' kindergarten readiness scores. The early learning coalition in a local Central Florida county oversees the school readiness programs and evaluates them using the ECERS-R environmental rating scale. This organization was established by state legislators to ensure that students have the ability to achieve future educational success and become productive members of society. A primary focus of the coalition is to improve the level of quality provided by ECE programs in this local county to ensure that children are ready to learn. Even though nationwide research may reveal the need for quality ECE programs, the ability to show evidence at the local level will be instrumental in determining the results of a lack of kindergarten readiness in this local county.

The state of Florida evaluates all kindergarteners within their first 30 days of school using the FLKRS. The FLKRS scores are published publicly online for each Florida county. The FLKRS scores of the students in the individual centers are then calculated to obtain that center's Kindergarten Readiness Rate (KRR). The KRR scores

are public and do not require permission or data agreement to retrieve the data from the FLDOE's Office of Early Learning website. Upon IRB approval, I gathered and analyzed the collected data from the appropriate organizations. This study was done to effect social change in the provision and availability of quality early childhood education for all young learners. Section 2 provides an explanation of the correlation design including a description of the two measurement tools. This discussion also addresses topics such as the setting and sample, instrumentation and materials, data collection and analysis, and descriptions of assumptions, limitations, and scope and delimitations.

Quantitative Design

Research Design and Approach

The focus of this quantitative correlation study was to examine the correlation between the ECERS-R and KRR of the selected ECE centers to determine kindergarten readiness rates. The results from this quantitative study were used to demonstrate the benefits of enabling all young learners to have access to quality ECE centers, especially in the aforementioned region in Central Florida.This correlational study was done to determine whether there is a correlation between students' kindergarten readiness scores and the quality of the preschool attended. The research question was the following: How does the learners' kindergarten readiness, as measured by the FLKRS, correlate with ECE centers' environment as measured by the ECERS-R? To answer this research question, the following hypothesis was tested:

H_0: There is no positive and significant correlation between the learners'

kindergarten readiness scores as measured by the FLKRS and the ECE centers'

environmental rating scores as measured by ECERS-R.

H_1: There is a positive and significant correlation between the learners'

kindergarten readiness scores as measured by the FLKRS and ECE centers'

environmental rating scores as measured by the ECERS-R.

A correlational study is a quantitative design that involves the study of two or

more variables to determine whether a relationship exists (Rugg, 2008). "Correlational

studies are quantitative, multi-subject designs in which participants have not been

randomly assigned to treatment conditions" (Thompson, Diamond, Mcwilliam, Snyder,

& Snyder, 2005, p. 182). This research design was appropriate for this study because I

sought to evaluate the relationship between the ECERS-R and FLKRS scores. These

scores are quantitative, so a correlational analysis was more appropriate for this research

question. According to Rugg (2008), a correlation can show how strongly two variables

are correlated with each other as in the case of the ECERS-R and the KRR. A qualitative

approach was considered but rejected because the data collected was not open-ended or

used for a new development or approach to a problem. Furthermore, the research

question and hypothesis did not require experimental manipulation and a cause and effect

relationship. According to Neuman (2006), a correlational design is appropriate if an

implied correlation exists between variables and predictability of increases or decreases

occurs between two or more variables. In a correlational study, variables are not

influenced but rather used as a measurement to look for a correlation between the same

sets of variables (Ragin, 2014). In a correlational study, the variables are not identified as dependent and independent.

The data were checked for four statistical assumptions before using Pearson's correlation. These four statistical assumptions are required to determine whether the Pearson's correlation is appropriate to analyze the data and to ensure the validity of the results (Creswell, 2014). First, the two variables, ECERS-R and KRR, measured at the interval or ratio level are continuous. Second, the variables are normally distributed. To test for normality, the Shapiro-Wilk test of normality in Statistical Package for the Social Sciences (SPSS) software was used (Razali & Wah, 2011; Shapiro, Wilk, & Chen, 1968). Third, inspection for a linear relationship between the two variables was conducted. This was checked by creating a scatterplot using SPSS, where the two variables were plotted for a comparison. The plot was inspected visually to check for linearity (Figure 1) as well as Pearson's *r* and a significance number *p*.
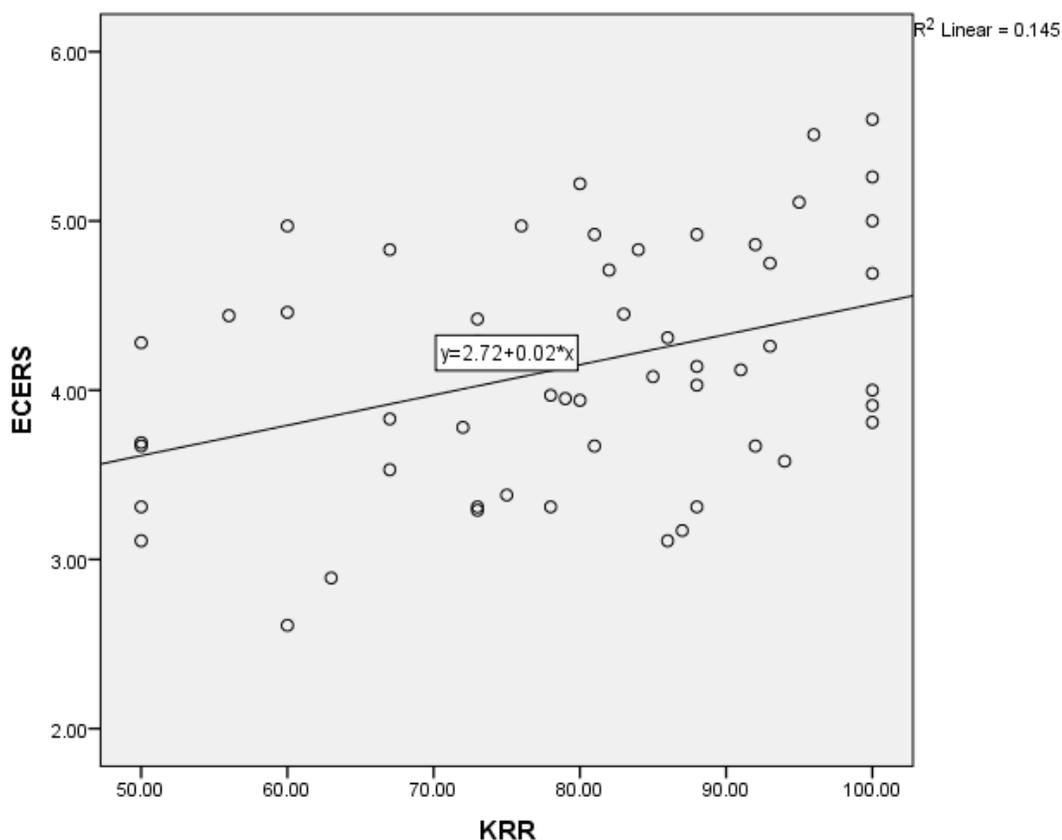
Figure 1. Pearson correlation graph for linearity.

Figure 1 illustrates that the data for the ECERS and KRR form a line shape when checked

visually. Fourth, the data were visually inspected to ensure that no significant outliers

existed. Outliers are single data points within the data that do not follow a regular pattern.

Rates collected from the KRR and the ECERS-R were analyzed using the Pearson

correlation to determine whether there was a correlation between the scores. Although a

survey design could have been used in this correlational study, it was not used because

the study did not involve designing the questions on the ECERS-R and the FLKRS

assessments. According to Creswell (2014), survey designs involve self-administered

questionnaires and interviews. The data collection included the use of data from the

ECERS-R and the KRR, which is based on the FLKRS assessments, to determine

whether there a significant relationship existed between the quality of the ECE program

used and the students' level of kindergarten readiness. The environmental rating scale

used, ECERS-R, has been used previously and has been validated by numerous empirical

studies (Burchinal, et al., 2008; Curby et al., 2009). Once permission was received by the

IRB, the data from the KRR and the ECERS-R were collected from the two

organizations.

Research Goal

The goal of using these two instruments was to show whether a correlation

existed between the quality of the ECE programs and the kindergarten readiness scores.

These two instruments are already in place and in use in a local Central Florida county.

The KRR, which is based on the FLKRS, is used by the FLDOE, and the ECERS-R is

used by the local county's organization responsible for school readiness throughout the

entire county. The FLKRS scores are currently used to determine teacher instruction and

student educational needs. Both instruments are administered by trained professionals,

which increases their validity. The data gathered were used to determine whether a

discrepancy exists in kindergarten readiness scores and the ECERS-R scores throughout

this local school district. Effective social change comes about when stakeholders are

made aware through empirical research of the existing problem. Although nationwide

research may reveal the need for quality ECE programs, the ability to show evidence at

the local level may inspire a deeper urgency regarding the lack of kindergarten readiness in this local county.

Measures for Ethical Protection of Participants

In this correlational study, measures for ethical protection of participants were followed before any data retrieval began. Identifying information was collected but not used, therefore ensuring that the names of the centers were kept confidential. Although some Florida counties publish their ECERS-R results online annually, this county has chosen not to make their findings public. Because the data was archival in nature, it did not present any physical or psychological risks to the participants. Permission was acquired from the coalition to collect the scores once approval from Walden University's Institutional Review Board (IRB approval #04-06-15-0076176) was obtained. The data use agreement was received from the coalition and is included in Appendix B.

The rates were entered into SPSS statistical software for both the ECERS-R and the FLKRS, and the names of centers were coded. Once the data were collected, the identifiers were stripped to prevent re-identification. This ensured that the data could not be retrieved and made available to others after the research was completed. Permission from the FLDOE's Office of Early Learning for KRR scores was not required because the data were public, archived, and readily available online. Students' names were not available and therefore were not collected from either organization. Only center names were collected. All data collected from both organizations were archival in nature. Hence, confidentiality was ensured.

Setting and Sample

The purpose of this study was to determine whether a correlation exists between the quality of an ECE program and the level of kindergarten preparedness of students in Central Florida. The data collected from the local early learning coalition consisted originally of 77 ECE centers in a local Central Florida county that were evaluated using the ECERS-R within the school years of 2011 to 2012. These centers were located in neighborhoods of varying socioeconomical levels and included private, public, and faith-based organizations. Each of these programs had approximately 12 students for a total target population of approximately 924 students. The sample size was based on a total number of centers that had both an ECERS score and a KRR score. The names of the centers on the ECERS-R list was compared to the KRR list. A total of 21 centers had fewer than four children in the program. Therefore, those centers did not receive a KRR score and had to be removed from the sample. This left a total of 56 centers in the data set. However, after running the Shapiro-Wilk test for normality and checking the scatter plot visually for outliers, I found that Center 53's score was extremely skewed and removed it to get a more valid analysis of the data. According to Cohen, Cohen, West, and Aieken (as cited in Pornprasertmanit & Little, 2012, p. 321), if an outlier is bivariate, the outlier should be excluded. Bivariate means that two variables are involved according to Cohen (2003) (as cited in Pornprasertmanit & Little, 2012). Center 53 had the highest score of all the centers (5.61) on the ECERS-R and the lowest score (50) on the KRR. If Center 53 results were included, the skewed data would not allow for accurate analysis. Therefore, a sample size of 55 centers was used, which was 71.43% of the total

population of centers rated by the ELCLC. Each center had approximately 12 students in its program, which meant approximately 672 students' FLKRS scores were used in the study. According to Rugg (2008), a sample size of 30 is sufficient for a correlational study. Similar studies involving kindergarten measures also included the approximate number of participants to enhance validity (Lopez, 2012; Sylvester & Krager, 2012; VanDerHeyden et al., 2011). However, in this study, the sample size of 55 centers was used for increased power, which in turn improved the reliability and accuracy of estimates (Cohen, 2013). Cohen (2013) contended that the power of a statistical test is important to determine whether the results will be statistically significant. To be eligible for the study, the county's early learning coalition must have assessed the ECERS-R at that center in the 2011-2012 school year and the center must have received a KRR score.

Instrumentation and Materials

The software program that was used to analyze the collected data was the SPSS version 21.0 statistical software program. The ECERS-R and the KRR, which summarizes the students FLKRS assessments, were the instruments used in this study. It is important to understand scoring procedures for both assessments. Program quality in the ECERS-R was based on current definitions of best practices on researches discussed in this study. The ECERS-R provides validated scales and subsets to measure program quality (Perlman, Zellman & Le, 2004). The Intra-Class Correlations was used for the ECERS-R subscales which examined the internal consistency of each scale to prove its validity. The subscales are space and furnishing, personal care routines, language-reasoning, activities, interaction, program structure, and parents and staff (Harms et al.,

2005). The scale is recommended for use by a trained outside observer. Scores wer based on what is currently being observed and rated on an ECERS-R provided score sheet. Scores ranged from one to seven with one being the lowest score and seven being the highest score. At the end, the sum of scores was calculated by taking the average (mean) of each score.

In this correlational research, a score of six to seven represented high quality since a five rating is good and a rating of seven represents excellent as stated in the ECERS-R profile. This ECER-R score is important as it was used to determine if a significant correlation existed between the program's quality and the students' individual FLKRS scores. The components of the FLKRS comprised of a subset of the Early Childhood Observation System (ECHOS) and the FAIR-K. The ECHOS included two screening instruments which are the Broad Screen/Progress Monitoring Tool and Broad Diagnostic Inventory of the FAIR-K (FLDOE, 2013). The inclusion of these subsets arrived from the FLDOE working in collaboration with the Florida Center for Reading Research (FCRR) and Just Read Florida!

These assessments are described in the FLKRS administration manual (2013) and were designed to measure students' progress, diagnose learning needs, set instructional goals, and monitor instructional progress. The manual further described the standards and benchmarks for the FLKRS which are organized by physical development, approaches to learning, social and emotional development, language, communication, and emergent literacy, cognitive development and general knowledge. Instructors and directors serving four year olds who administer the FLKRS and other school readiness assessments were

trained to proctor these various tests (McWayne, Wright, Cheung, & Hahs-Vaughn (2012). Section 1002.69(1) of the Florida Statues stated that the responsibility of the state is to provide kindergarten readiness screenings to students in the school district within the first 30 days of kindergarten. This included students who attended private schools who participated in Voluntary Pre-Kindergarten (VPK) programs.

The ECHOS portion of the FLKRS contains seven developmental domains: language and literacy, mathematics, social and personal skills, science, social studies, physical development and creative arts. The measures included in the FAIR are the Broad Screen/Progress Monitoring Tool which consists of letter naming task, phonemic awareness task; as well as the Broad Diagnostic Inventory which consists of listening comprehension task and vocabulary task (McWayne et al., 2012).

Data Collection and Analysis

In this section, a detailed description of the environmental rating scale, ECERS-R, used by the participating ECE programs, will be discussed in further detail. In describing the ECERS-R, I will also introduce the scales and subscales of this rating scale. The KRR will be explained to show it uses the FLKRS results to calculate the providers' readiness rates. Also, a detailed description of the FLKRS and how it measures the probability of reading success using at least 14 but no more than 19 observed benchmarks as shown in Appendix C. Lastly, a detailed description of the data collection process will be discussed along with an explanation of the relationship between the defined variables.

According to the Florida Department of Education Office of Early Learning (2009), in Section 230.2305(4) of the Florida Statutes, all schools in the district will be

given an assessment to determine quality of the ECE program. This statute mandates for the students to be assessed using FLKRS to determine their level of kindergarten readiness within the first 30 days in kindergarten. The ECERS-R assessment tool is carried out by trained professionals from the Early Learning Coalition of XXX County (ELCLC) to rate the quality of the ECE centers in this county. The ELCLC's primary role is to ensure that all the children of this county are prepared and eager to learn upon entry to kindergarten (ELCLC, 2013). One of the roles of the ELCLC was to ensure that the School Readiness Programs and Voluntary Prekindergarten VPK report scores to FLDOE and the federal government.

Evans and Schaeffer (1996) stated that the scope of the environmental and academic quality of ECE centers can be extensive and therefore has a broad array of definitions. For this reason, a more precise definition of quality was used in this quantitative design research project. In determining the process of quality, the measurement scale used in this research is ECERS-R. This environment rating scale used a standardized measure to process the quality of ECE centers (Greenwood & McConnell, 2011). According to Greenwood & McConnel (2011) the features used in the ECERS-R includes "aspects of the classroom environments experienced by children- their interactions with teachers and peers, and the materials and activities available to them" (p. 476).

However, in trying to develop quality programs, stakeholders cannot develop a one-size fits all approach. A study by Harrist, Thompson, and Norris (2007) used a multi-system method taking the stakeholders' perspectives into consideration in developing

some unique quality indicators. This study found that views on quality of the stakeholders are consistent with current research which states that quality of the programs determines the educational success of the students. The creators of this scale have acknowledged that other factors may affect scores such as cultural preferences and beliefs of the adults involved as well as the physical condition of the building, financing and teacher quality and education. However, this will allow for programs that do not do well to make adjustments based on the strengths and weaknesses as evidenced from the scale (Cryer, et al., 2003). The inventors of the scale recognize that are other risk factors such as the parents' SES, single parenthood, ethnicity, education and educational views that may influence the scores. The subscales and items of the ECERS-R included, spacing and furnishings, personal care routines, language-reasoning, activities, interaction, program structure, parents and staff for a total of seven subscales.

In a recent study, the validity of the ECERS-R was critiqued as an assessment tool to compare child care quality with child development (Gordon, Fujimoto, Kaestner, Korenman, & Abner, 2013). However, a plethora of research, many with a large sample size, agreed with the validity as stated by the authors of the ECERS-R in determining the quality of ECE programs (Cassidy, Hestenes, Hegde, & Mims, 2005; Cryers, Thelmas, & Riley, 2003; Sylva, et al., 2006). The ECERS-R has been used for over 25 years and is widely used and accepted in the Central Florida region for assessment of preschool quality. It was also used in conjunction with the FLKRS for VPK scores by the local early learning organization of the Central Florida region.

The Broad Screen, a component of the FLKRS, had a predictive validity based on norm-referenced testing appropriate to grade-level expectations (FLDOE, 2013). According to Salkind (2011), a criterion that has a predictive validity focuses on what will take place in the future. The FLKRS also included an expressive vocabulary test that meets the state of Florida standard for reliability. Reliability issues were addressed with Item Response Theory (IRT), by examining item discrimination and difficulty. IRT provided ways to assess the content that was being measured and allowed for individual differences (Steinberg & Thissen, 2013). This was especially important in the reliability of FLKRS as the raters are sometimes called to rate behaviors. Items in the FLKRS have also been examined for bias due to gender, ethnicity, and language status (Clifford, Reszka & Rossbach, 2010).

Data collection began upon the receipt of IRB approval #04-06-15-0076176. All data collected was treated with procedures that allowed for utmost confidentiality of the participants. Each participant was assigned a unique code identifier. Personal identifiers of the centers' names were necessary during the data collection process. Once data collection was completed, personal identifiers were stripped to ensure that re-identification does not occur. The data was kept in a password protected computer file accessible only to the researcher during this study. The hard copy data that was received from the early learning coalition was stored in a locked file cabinet with access limited solely to the researcher.

Data were collected from the FLDOE's Office of Early Learning website regarding KRR scores as soon as permission from Walden University's IRB was

obtained. These scores were calculated for each ECE program by dividing the number of

children who completed the VPK program and screened on the FLKRS. In order to be

included in the KRR score, the student must have specifically completed at least 70% of

the program. Additionally, the students who were not ready, based on the FLKRS,

adversely affected that program's rating. For example, if a program served 20 children

with only 18 who attended at least 70% of the time and 12 are ready, 12 is divided by 18

and equals 60%. The sum (60%) provides the percentage of children in that program who

is ready for kindergarten. In this example, the readiness rate of the ECE program would

be 60. The maximum rate centers can receive is 100. The State Board of Education sets

the procedures and minimum readiness rates (see Section 1002.69(6).F.S.). Only

providers who served at least four students and completed the school year or the summer

program received a readiness rate. The scores were public record and permission was not

required from the Florida Office of Early Learning. Likewise, the early learning coalition

of XXX County had ECERS-R data that was collected once permission was granted from

the IRB. This organization is responsible for rating the local ECE centers in this county

using the ECERS-R rating tool. Their field team was trained by the official ECERS-R

training team and they receive refresher courses each year.

SPSS v.21 was used to provide statistical analysis of the collected data in this

project study (Appendix D). The data werefirst checked to determine if they were found

to be continuous or discrete variables. The variables were determined to be continuous

since the ECERS values were not whole numbers (Santner & Duffy, 2012). The ECERS-

R and KRR's data were then checked for normality using the Shapiro-Wilk test of normality using the sample size of 56 centers (Table 1).

To verify that the data is approximately normally distributed, the data was inputted into SPSS and calculated. The results showed that the Shapiro-Wilk (p >.05), for the ECERS scores was $p = .591$ which shows that it is normally distributed. However, when calculated for the KRR, the data showed $p = .005$ which shows that the data is skewed. In order for the values to be determined normally distributed, both p values for the ECERS-R and the KRR should be $p > 0.05$.

Table 1

Shapiro-Wilk Test for Normality

Scores	*df*	*p*
ECERS	56	.591*
KRR	56	.005

Note. For all outcomes, $n = 56$.

*p >.05

In order to help determine skewness, a visual look at the scatterplot showed an outlier of a score on the KRR of 50 (Figure 2), which is the lowest and an ECERS-R score of 5.6, which is also the highest score of the centers.
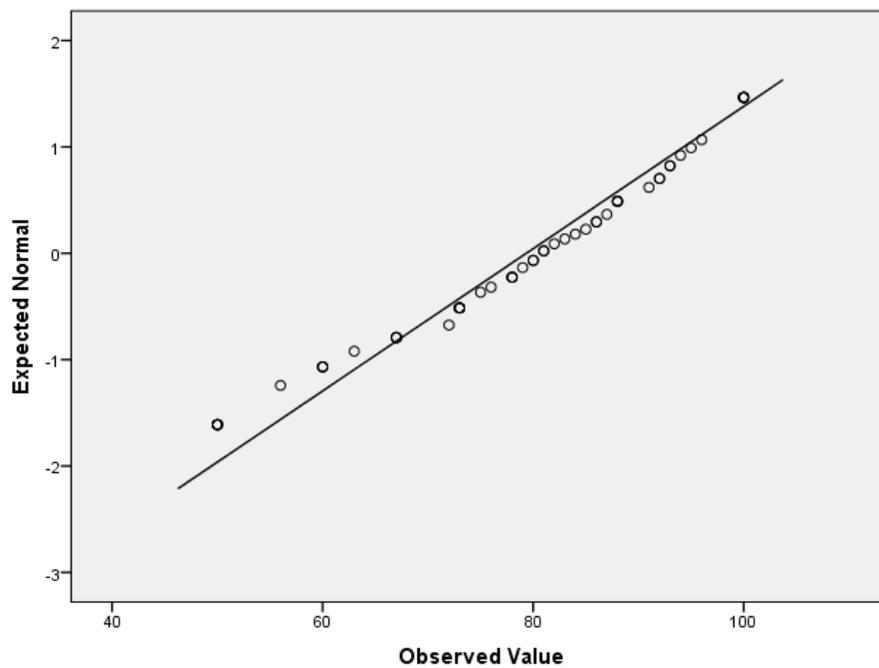
Figure 2: This figure illustrates the outlier on the SPSS graph for the Shapiro-Wilk test for a visual check for linearity using KRR plotted values for *n* = 56 using SPSS graphs. The Expected Normal (x-axis) represents ECERS values and the Observed Value (y-axis) represents the KRR values.

Because the outliers found were bivariate, we were able to remove the skewed scores without jeopardizing the validity of the research study results (as cited in Pornprasertmanit & Little, 2012). Therefore, the data value for Center 53 were removed from the data set because they involved two variables, the ECERS-R and the KRR. This skewed value would affect the accuracy and validity of the findings. In addition, when investigating visually at the histograms for ECERS-R and KRR data sets, the distributions for the KRR were not normally distributed but showed Center 53's value to be skewed (Figure 3) based on the lack of a bell shaped curve on the graph.
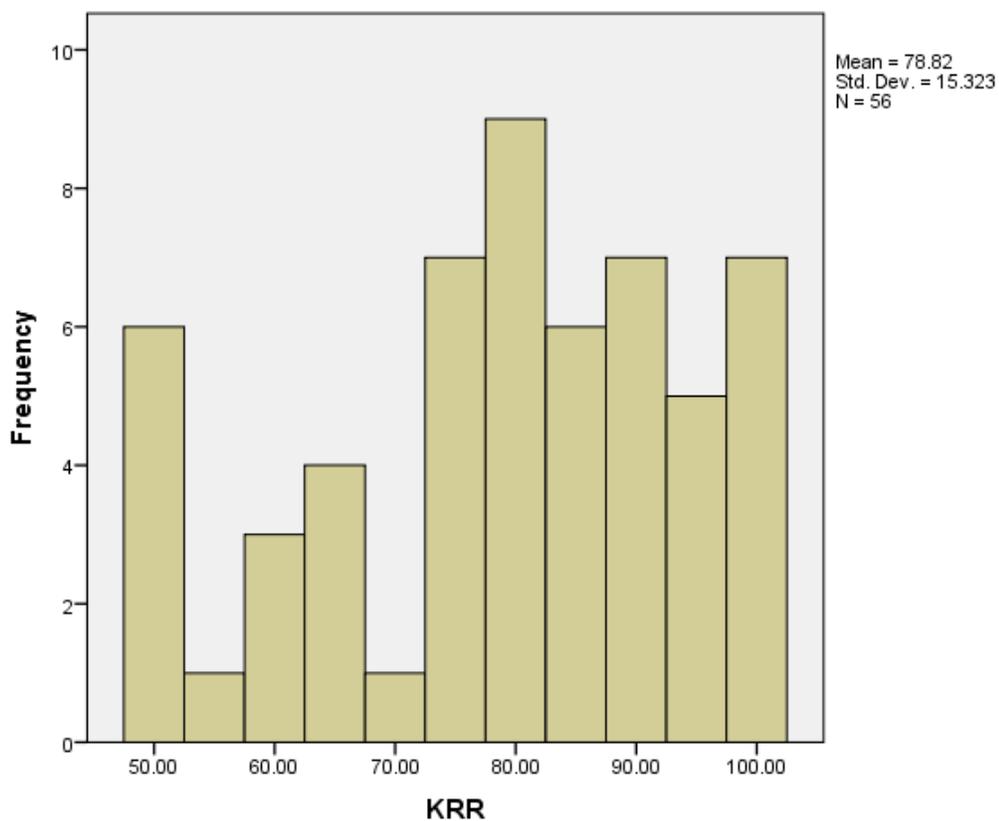
Figure 3. This figure illustrates a histogram for visual check for normality graph using SPSS for KRR values where n = 56. The frequency is the KRR scores and how often they occur.

As a result, data using the sample size of 55 *(n = 55)* centers was calculated into SPSS which excluded the skewed value from center coded as number 53. Shapiro-Wilk test for normality showed that the Shapiro-Wilk (*p >*.05), for the ECERS-R scores was *p* = .690 which showed that it was normally distributed and for the KRR, *p* = .008.

Table 2

Shapiro-Wilk Test for Normality

Scores	df	p
ECERS	55	.690*
KRR	55	.008

Notes. For all outcomes, *n = 55*.

*p >.05

The ECERS-R scores showed a skewness of 0.050 (SE = .322) and a kurtosis of .683 (SE = .634). The KRR scores showed a skewness of -.487 (SE = .322) and a kurtosis of -.603 (SE = .634). These skewness and kurtosis results shows that these variations of skewness for both data sets do not differ significantly from normality.

Table 3

Skewness and Kurtosis for ECRES and KRR for 2011-2012 School Year Scores

Scores	Mean	*SD*	Skew	Kurtosis
ECERS	4.14	0.704	0.05	0.634
KRR	79.35	14.95	-0.487	-0.603

Notes. For all outcomes, $n = 55$, standard error for skew = 0.322, and standard error kurtosis = 0.634.

The histogram for ECERS-R (Figure 4) and KRR (Figure 5) show that the KRR as approximately normally distributed and the ECERS-R was even more evenly approximately distributed. However, this variation of skewness is normal and expected in data sets.
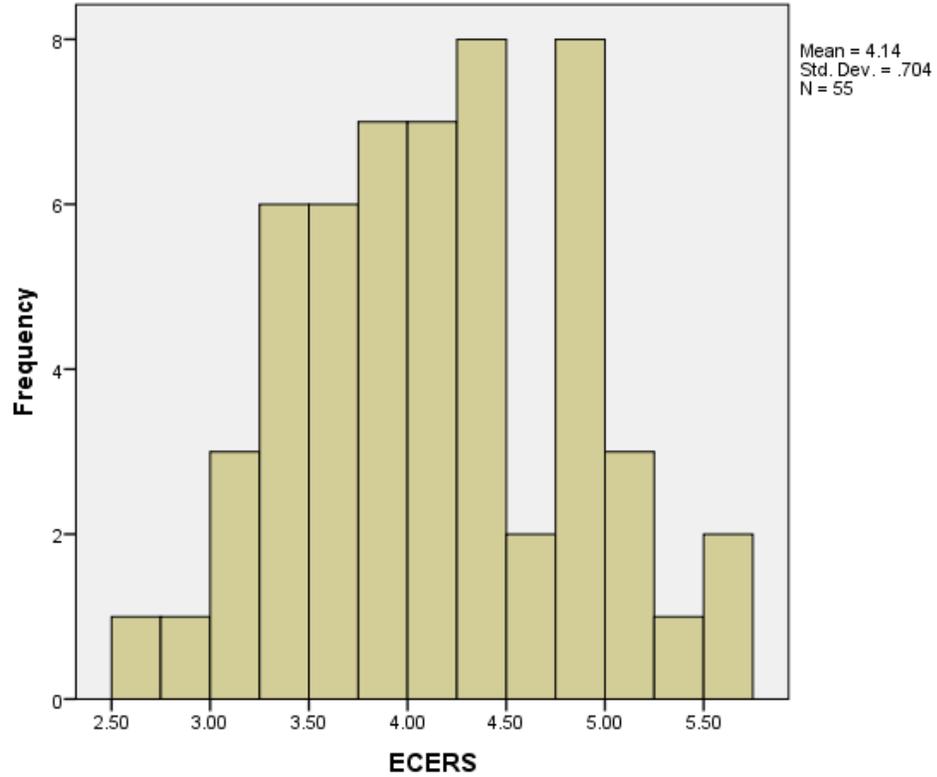
Figure 4. This figure illustrates the histogram graph for a visual check for normality for

ECERS scores (y-axis) for *n* = 55. The frequency is the ECERS scores and how often
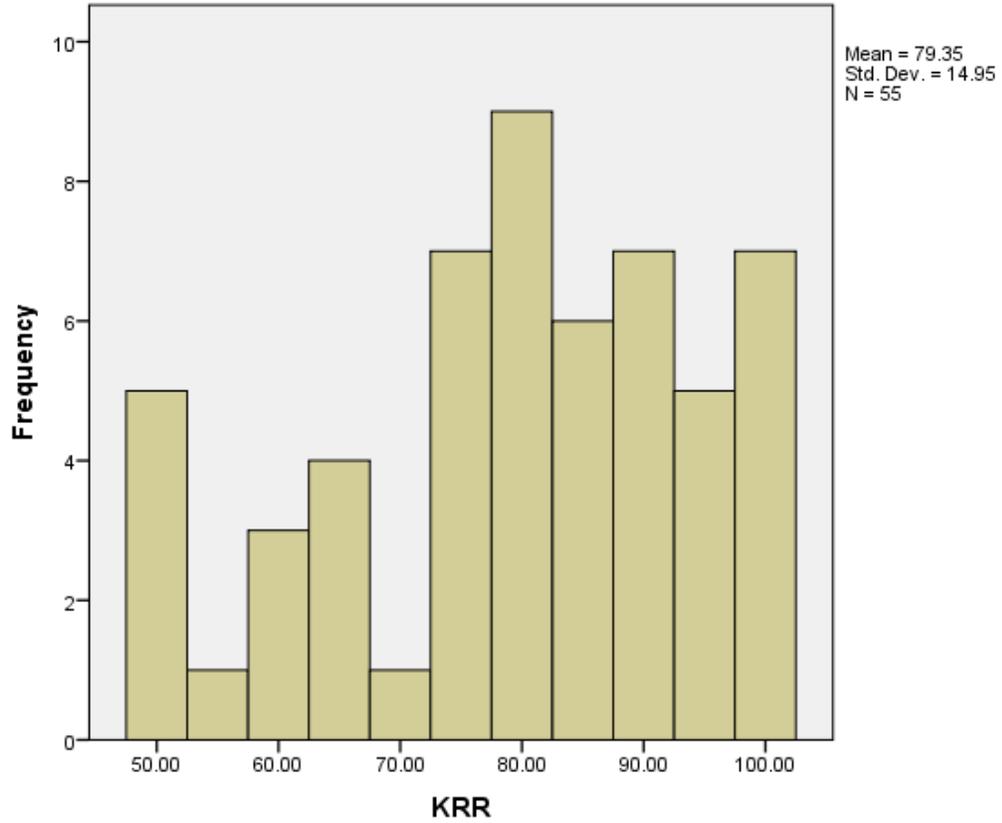
they occur.

*Figure 5.* This figure illustrates the histogram graph for a visual check for normality where *n* = 55. The frequency is the KRR scores and how often they occur.

Next, the scatter plot was visually inspected for linearity and both data sets appeared to be approximately linear in nature (Figure 6).
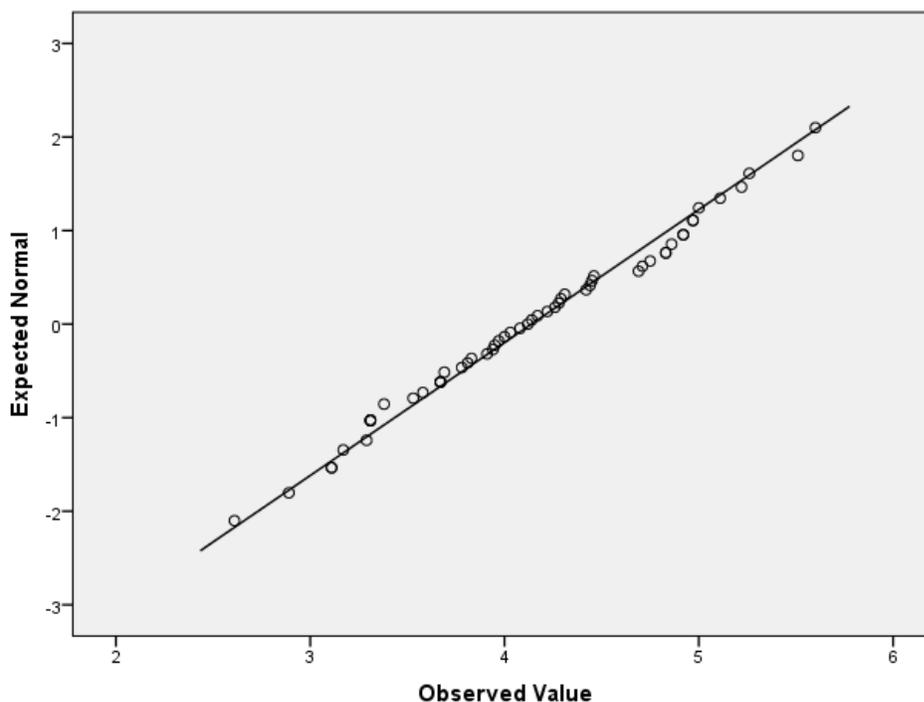
Figure 6. Scatter Plot of ECERS scores for a visual check for showing linearity for *n* = 55.

With normality being established, the Pearson correlation was then calculated. Correlation between two variables is a measure of how strongly the variables are related and whether those relationships are statistically significant. One of the most common measures of correlation in statistics is known as Pearson Correlation, also referred to as the Pearson Product Moment Correlation (PPMC). This measure shows the linear relationship between two variables (Gravetter & Wallnau, 2008). The Pearson Correlation is represented as the Greek letter rho (ρ) for a population and the letter "*r*" for a sample. Results of Pearson Correlation are between -1 and 1. A result of *r* = -1 indicates that there is a perfect inverse correlation between the two values being measured; while a result of *r* = 1 means that there is a perfect positive correlation. A result of *r* = 0 signifies

that there is no linear relationship between the two variable (Creswell, 2014; Cohen,

2014). Once inputted and calculated for Pearsons *r* correlation, the results showed that

there is a positive and significant correlation between the centers' ECERS-R scores and

the centers' KRR scores, $r(53) = .38$, $\rho = .004$. Additionally, The ECERS-R and the KRR

correlations were significant at the $p < 0.01$ level two tailed (Table 4).

Table 4

Pearson's Correlations

		ECERS	KRR
ECERS	Pearson Correlation	1	.380[**]
	Sig. (2-tailed)		.004
	N	55	55
KRR	Pearson Correlation	.380[**]	1
	Sig. (2-tailed)	.004	
	N	55	55

** Correlation is significant at the 0.01 level (2-tailed).

When graphed to show linearity, the linearity of the graph showed that the

Pearson Correlation was a good fit for this study (Figure 7).
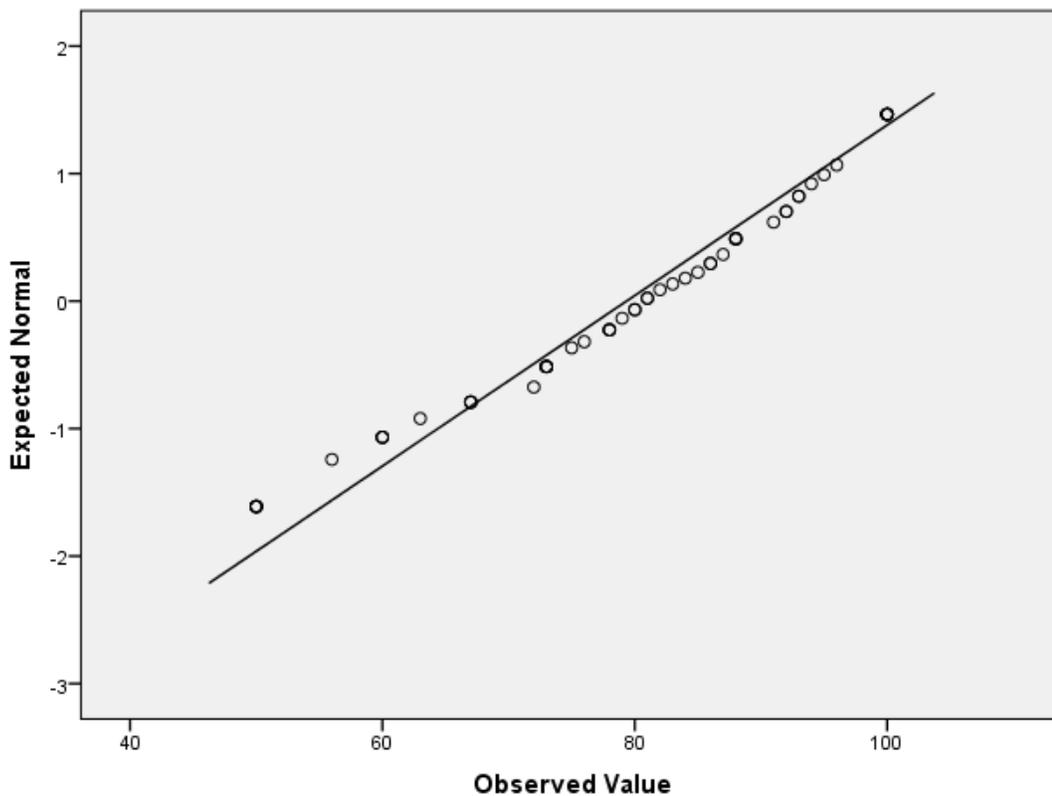
Figure 7. This figure illustrates a Scatter Plot graph for a visual check showing linearity of KRR and ECERS scores where *n* = 55.

Finally, as a result of the calculated Pearson correlation, I was able to reject the null hypothesis in relation to the research question for this study. Based on these findings, a statistically positive and significant relationship exists between the centers' ECERS-R score and the centers' KRR scores. It can therefore be concluded that the higher the academic environmental quality of the center, the more prepared the students were for kindergarten.

Assumptions

There are some assumptions which can be made in the evaluation of ECE programs. It was assumed that the staff at the early learning office of a local county that administered the ECERS-R did so with fidelity and were well trained. This ensured that ratings were consistently accurate throughout all assessed centers. It was also assumed that the centers with the higher-quality ratings based on the ECERS-R scores produced students who scored higher on the FLKRS assessment than those schools who performed at the low-quality level of testing. Hence, these centers did have a higher provider Kindergarten Readiness Rate. Another assumption which was made is that the data needed will be readily available for data collection and analyzing. The information for our research data will be from the Florida Department of Education for the FLKRS as well as the Early Learning Coalition of XXX County for the ECER-R and should be valid based on their standing.

Limitations

This study was limited to ECE programs that are associated with the ELCLC which includes family day cares, faith-based, non-profit, private and public preschools who participate in the Voluntary Prekindergarten (VPK) program and had a least 4 students in their program. The students whose scores were calculated in the KRR by the FLDOE are the indirect participants since no students' individual scores were collected. The participating centers ECERS-R scores and all their personal information remained confidential. The participatory preschools all received government funding and were

required to adhere to the Florida statute (Section 1002.69(5)) that mandates the calculation of the kindergarten readiness rate for each private or public school.

Delimitations

This research will be delimited to centers in a local Central Florida County who may have participated in the Early Learning Coalition of a particular county's assessments. This includes a variety of centers who participates in the VPK programs such as family day cares, private ECE centers, faith-based ECE centers, and public schools ECE programs and kindergarten programs. These facilities are all scored on an annual basis using ECERS-R rating scales as well as using the KRR rates. The identity of these centers were kept confidential as names and locations were withheld and data entered using coding. In the same manner, the names of the students were not used since the KRR rates summarized the scores of all the students and did not reveal their names. The personal identifiers of the centers were stripped to ensure that re-identification cannot occur. These scores and results of each center were made public on the state's Office of Early Learning website although names are withheld. The rights of the students and the centers were protected since their identities were not be used nor made available to the researcher after data collection.

<div align="center">

Conclusion

</div>

The provision of a quality ECE program for all children has been a decade long mantra. This project study was able to provide evidence that the quality of the ECE center effected how academically prepared students where upon kindergarten entry. KRR scores were provided from the FLDOE's Office of Early Learning and used in relationship to

the ECERS-R scores provided from the early learning coalition. The data analysis

resulted in the determination that as the quality of the center improved, so did student

KRR scores. Adversely, it also determined that as the quality of the center declined, so

students' KRR scores. At the local level, this research has attempted to bring an

awareness and recommendations to stakeholders of the relationship between the quality

of the ECE and the kindergarten readiness levels. With the use of available resources and

data, the findings have contributed to the body of knowledge in hopes of attracting

funding for the disadvantaged neighborhoods in this cntral Florida county that may be

lacking quality ECE centers. Studies have shown that in the lower SES neighborhoods

and those with a high immigrant population, a quality ECE program are a rarity.

However, with the data available through the ELCLC and the FLDOE, I was able to

validate my research study and attempted to create social change in the area of ECE.

Many children of varying backgrounds and socioeconomic status may benefit from the

findings of this study as the importance of the provision of quality education and its

effect on academic preparedness is discovered.

Section 3: The Project

This research study was conducted to determine whether the quality of ECE centers affected the level of student preparedness for kindergarten. One of the main goals of this study was to raise awareness of the importance of quality ECE programs and their role in providing a successful academic and social foundation for young children. This project included recommendations to the existing policy in the form of a white paper report (Appendix A). Included in this white paper is relevant literature, recommendations for increasing the number of quality ECE centers available, and a discussion of the implications for social change brought about by the findings of this correlational study. This section describes the description and goals, rationale, review of the literature, project description, project evaluation plan, and implications for social change.

Description and Goals

The primary function of this white paper is to distribute policy recommendations and report the findings of this correlational study to parents and providers. The secondary target audience is other stakeholders such as various local organizations that serve young children and families of young children, school administrators who provide ECE programs, early learning coalitions, and The Florida Office of Early Learning. The use of a white paper was chosen because the informal format allows for easy reading for a wide variety of educational backgrounds. Using a white paper removes the complexity of the analyzed findings of this study and provides a useful form of sharing policy recommendations and results with parents, providers, and other stakeholders. This quantitative analysis was done to evaluate a possible correlation between the centers'

ECERS-R scores and KRR results. This white paper (Appendix A) is written in a manner that will serve both the primary and secondary audiences. The goal of this white paper is to present the findings of the positive relationship between the environment of the center and how it affects students academically by presenting data in an easy-to-read format. This will also raise public awareness of the importance of the availability of quality ECE for kindergarten readiness. In addition to the white paper, stakeholders will have access to a one-page, easy-to-read fact sheet and a visual presentation that will also include recommendations to improve environmental factors that affect the centers' quality based on the scales and subscales provided in the ECERS-R. This information will also be available online as noted on the fact sheets.

Rationale

Parents and providers may not have the time or the formal research training to comprehend a dissertation. Therefore, a white paper report is an appropriate platform for disseminating the findings of this study. To increase comprehension and more effectively disseminate my findings, parents and provider factsheets will also be provided with a presentation. This method will allow for various media styles of sharing data to increase the awareness of these findings. This white paper will allow me to share the results of this study in a clear and concise manner while ensuring that all the pertinent aspects of the findings are included. The white paper will be shared with the aforementioned organizations, and they will be given the fact sheets to distribute to parents and providers. Although the white paper will be available to parents, teachers, and providers, they may

more likely read an attractive, colorful document in the form of a fact sheet. These combined methods provide a greater probability of reaching a wide array of stakeholders.

Review of the Literature

There was a positive correlation between the quality of the ECE program and the students' level of preparation for kindergarten. The need for quality child care continues to increase as the need for economic self-sufficiency rises (De Marco & Vernon-Feagans, 2014). Therefore, it is imperative to share the findings of this study with policymakers, parents, center directors, administrators, and educators regarding the role a quality ECE program plays in impacting the academic foundation of young children. The literature review in this section addressed two factors that were not discussed in the previous literature review. These factors are pertinent to produce the desirable social change of an increase in the availability of quality ECE centers. First, I review research addressing the process of raising awareness of the need for quality ECE centers. Second, I examine approaches for the adaptation and implementation of higher quality social and academic standards in ECE. These factors have been supported with empirical evidence.

To conduct an in-depth search for this literature review, I used a variety of sources through Walden University's online library, including Internet databases such as SAGE, EBSCO Host, and Education Research Complete. The search terms included *implementation of quality ECE programs*, *implementation of policy*, *change theory*, *grey literature*, *white papers*, and *program evaluation*.

Policy Implementation

Transforming low quality ECE environments into high quality centers can be a daunting task. Providers and other stakeholders need research-based policies that can provide a protocol that can be followed. These policy changes, when implemented, may increase the quality of the programs and ensure students are provided the necessary academic foundation for success. People often perceive that a change in policy comes from a national level. However, according to Spillane, Reiser, and Reimer (2002), a change in policy can be implemented at the individual, business, or organizational level. Each provider, parent, or stakeholder should share in the responsibility. Each party should become aware of implementation and adaptive strategies that are based on research findings.

Policy changes focused on the community level are also imperative. Therefore, efforts will be made to involve the community in becoming aware of the positive effects of quality ECE centers for educational success for young children. Boehme (2014) stated that community engagement should be encouraged to promote acceptance of proposed changes. Decisions should not be made without empirical evidence. Research has been abstruse in indicating the essentials for teacher qualifications or classroom practices that create student academic growth (Goe & Stickler, 2008). Geo and Stickler (2008) also stated that school improvement can occur only when research-based evidence is used in the decision-making process. Evidenced-based research will allow for a more effective and lasting improvement to be implemented. This evidence should be shared by providing easily comprehended explanations of the need and recommendations for the

policy change in various formats, which may increase the stakeholders buy-in regarding the recommended changes.

To implement the recommendations discussed in this project, I researched professional development for teachers. Avalos (2011) stated that teachers' professional learning is a complex process that requires teachers to be willing to make adjustments to their convictions and beliefs. Effective professional development focuses not only on beliefs and practices but also on enhancing knowledge and concepts (Mirriam, 2001). Communities of learning are effective in creating an improvement in teacher practices (Vesco, Ross, & Adams, 2008). According the adult learning theory (Knowles, 1968), the learning experience improves as educators share their experiences. Therefore, organizations that provide teacher training should allow for collaboration among peers to improve the quality of ECE centers.

Theoretical and Conceptual Framework

There are a number of important factors that should be considered when seeking to implement change. Cognitive science suggests that decisions are made based on prior beliefs, values, expertise, knowledge, and experiences. These influences should be considered when attempting to implement change. Individuals are more resistant to change that goes against their prior belief. According to Jones (2003), change agents should not underestimate the difficulty that arises when individuals are faced with change that requires a rejection of previously held beliefs. Efforts should be made to provide stakeholders with additional knowledge to build on their values and experiences. With

this foundation, policymakers can prepare policies that are more acceptable to stakeholders.

There are a number of approaches that support transforming change and contribute to altering people's opinions. One of these approaches is intentional visual imagery. Policymakers should be intentional when choosing visual imagery to bring their point across. Barsalou's theory of perceptual symbol systems (1999) states that symbols are processed by the brain and used by individuals to understand high-cognitive functions (Waller, 2012). Therefore, using tools such as pictures and videos can enhance the acceptance of a new idea. Researchers agree that information shared visually enhances the retention and comprehension of newly acquired knowledge (Lewis, O'Reilly, Khuu, & Pearson, 2013).

Another factor that enhances change in policy or its implementation is the manner in which it is introduced and coordinated. Well-organized and structured processes should be in place to increase acceptance and participation in policy changes (Dongen, 2014). Ambiguity may deter stakeholders from supporting the policy change (Naidoo, 2013). Policy recommendations should be clear and easy to carry out by the target audiences. Lewin's change theory states that when it comes to change at the individual or group level, the process of learning and relearning becomes painful at the cognitive level (Schein, 1996). Therefore, every effort should be made to ensure that the policy recommendations and desired changes are presented to various stakeholders in an organized manner.

White Paper Report

There are various means of distributing literature to stakeholders. Gray literature refers to research reports with information that has not been published in journals, periodicals, or books (Lawrence, 2012; Okoroma, 2011). It is an important method used by a broad range of users including businesses, governments, and academicians to reach a wider audience. Because of its simplicity in sharing complex research, gray literature is currently used as an effective method to disseminate new knowledge based on scientific evidence (Sibbald, MacGregor, Sumacz, & Wathen, 2015). In the past, research papers were mostly available to scholarly audiences. However, a recent study has shown that research papers have a greater measureable impact when gray literature is included (Sibbald, et al., 2015). According to Savoie, Helmer, Green, and Kazanjian (2003), including gray literature caused an increase of 29% in stakeholders who were reached. Gray literature identifies research gaps that may lead to further research questions. Gray literature serves as a key component to nonacademic dissemination and is important to the development of policies (Marzi, Pardelli, & Sassi (2011). One common and effective gray literature is the white paper report.

White paper is a form of gray literature, also known as research reports, that allows for details of original research findings to be shared in a manner that can be comprehended by individuals who are not trained in research methods (Juricek, 2009; Lawrence, 2012). In recent years, white papers have become a popular means of sharing report findings via the Internet. Sharing white paper reports online increases the capacity to reach more people. The white paper report was prepared to share the findings of this

project study. This method will allow me to increase my target audience using an easily comprehended document. It is also a cost effective way of raising awareness of the issues and providing recommendations based on research.

The Internet is a powerful source of increasing knowledge to the community regarding the effects of quality ECE on young children. A recent study indicated that Internet training was effective in altering community perception of autism (Gillespie-Lynch et al., 2015). The Internet proves is an inexpensive method of disseminating information to stakeholders from various backgrounds and affiliations (Fairburn & Cooper, 2011). Another benefit of the Internet is that the information can be accessed on an individual's own time and can be regularly updated to keep information current. Internet accessibility is especially important in rural counties such as this local county where public transportation is not readily available in most areas. The Internet can also make visual presentations and images easier to implement in the training or report (Bennett-Levy, McManus, & Fennel, 2009).

Project Description

The white paper report (Appendix A) will be distributed to the various stakeholders to increase awareness of this study's findings regarding the positive effects quality ECE centers on kindergarten readiness scores. Other forms of distribution include an online version of the white paper as well as fact sheets to reach a wider audience. This undertaking requires the support and partnership of various organizations and community members. Distribution efforts include disseminating copies of the white paper report to organizations such as the early learning coalition, the FLDOE's Office of Early Learning,

faith-based organizations, and ECE programs that are public, private, family day care, or faith based. Distribution to parents will done through the various mentioned organizations as well as community bulletin boards. For marketing purposes and wide distribution, the project will be called the Start Ahead Campaign with a motto of "Start Ahead, End Ahead." By using the various distribution methods, the awareness of the campaign should increase. The early learning coalition and the Office of Early Learning will provide an existing support system for this study as they were the organizations that provided data used to complete my study. This partnership has allowed me to gain support from smaller organizations who recognize larger organizations as an integral part of implementing systemic change.

Stakeholders

Stakeholders play an important role in creating an expectancy of progress and social change in our ECE programs (Lee, Benson, Klein & Frankie, 2015). One of the key stakeholders that is targeted is the local early learning coalition. This organization is established by state legislature and provides ECE services to the county. These services include care resources, referral services, child care assistance and voluntary pre-kindergarten services. Faith-based organizations will also be targeted as partners in the project because many have ECE centers and access to families with young children. These organizations can be useful in the distribution of the fact sheets. Providers are stakeholders who provide an ECE program for young children. They are an important key and therefore it is imperative for them to know and understand the effects their programs have to a child's kindergarten readiness. And lastly, but most importantly are the parents

of young children. Because parents play an important role in the education of young children, this research targets that population as well. Therefore, this white paper will be written in common language for easy readability by parents of varying educational levels to ensure that most parents are made aware of the importance of ECE programs for kindergarten readiness.

The outcome evaluation of this project will focus on the number of target audiences the project reaches. This evaluation outcome is apropos since it aligns with the goal of this project which is to bring an awareness of the importance of quality early childhood education to kindergarten readiness. In the next few years however, the far-reaching outcome evaluation could potentially lead to increased KRR scores in various ECE programs should they participate in the proposed policy recommendations. It will also determine if it meets both short and long term objectives. Overall, the evaluation goal for this project will be to bring an awareness to various stakeholders that the quality of the ECE centers serves as a strong indicator of kindergarten readiness. The short term outcome to measure this project will be in the zero to six-month time frame. It will measure the amount of stakeholders who view the white paper report or the fact sheet that will be distributed. It would be ideal to get the local organizations support and partnership. Some of the major organizations that will be sought after are the early learning coalition, private and faith-based organizations, and ECE centers. They will be requested to disseminate the information furnished to them via the factsheets and white paper report.

Potential Barriers

Potential barriers could include organizations that may choose not to participate in the dissemination of the information. Without their support, it could mean that fewer parents would be reached with our efforts. It would also result in the community as a whole being made more aware of the need to check for the quality rating of the schools based on the schools' KRS scores. The lack of human resources to carry out this task could become a factor. The researcher will be the one mainly responsible to distribute the materials. Therefore, the timeliness of the delivery may be in jeopardy. Money could also play a role in becoming a barrier. Funding will be needed to sustain the marketing of this campaign. The fact sheets will need to replenish upon the organizations request once they run out of copies. The website will also need to be maintained and funded annually. The researcher must be on hand to answer questions via the email and website responses. In order to minimize the effects of these barriers, the researcher will meet with the organization leaders to solicit their continued partnership and support. There are potentially many organizations that might be willing print and distribute materials to parents to alleviate some of the funding and work load of disseminating the materials.

Potential Resources and Existing Supports

There are a number of resources required to carry out this project and create an awareness to individuals, the community and other organizations on a whole. The resources needed in order to share these findings and create an increased awareness included the following:

1. A black and white copy of the white paper report to approximately 100 ECE

   centers in

   this county (this includes centers in the county who may or may not have

   participated in kindergarten readiness programs).

2. Colored copies of the fact sheets to providers to include private, public and faith-

   based ECE program providers, and other organization who may serve young

   children and families. They will receive copies based on their target capacity.

3. A website which hosts a digital copy of the white paper, fact sheets and the

   PowerPoint presentation will allow for easy sharing and distributing of

   information and project findings amongst the individual and organizations who

   may be willing to disseminate the fact sheets and website information to other

   parents, organizations and to the community on a whole.

4. The white paper report, fact sheets and websites will be created and maintained by

   the researcher. The researcher was also responsible to get copies to each

   organization and monitor the distribution of the information for evaluation

   purposes. The researcher also monitored the website to see how many views were

   received as well as any emails received with questions or concerns regarding the

   reports.

Roles and Responsibilities of Student and Others

In order for this project to be implemented efficiently, the role of the early

learning coalition is vital. This organization will be responsible to provide and distribute

information to parents and the community who enter their offices. They will also be

responsible to provide training through the use of the presentation provided by the

researcher. Other volunteers will be expected to help distribute factsheets which in turn

will lead others to the website for additional information and white paper report.

Project Evaluation Plan

An outcome-based evaluation will be utilized to determine the efficacy of this

project in creating an awareness of the important role of ECE centers in preparing young

children for kindergarten. This evaluation will be used to determinine whether or not

further revisions to the project are needed after disseminating the research findings in the

manner discussed. Other types of evaluations may measure student scores, the amount of

money spent, number of people served, or client satisfaction. However, I have chosen to

measure how effectively the findings and recommendations are shared via the white

paper report. The PowerPoint presentation as a training tool will also be evaluated

because it is the objective of this project to change the thought process and expectations

of its audiences. According to Burden and Proctor (2000), training is a tool used to

change people's behavior. Therefore, the manner in which it is evaluated should be

centered on measuring change. This definition gives the assumption that training will

lead automatically to change. However, training cannot be based solely on skill

requirement and specific achievement (Burden & Proctor, 2000). Other researchers also

agree that a variety of outcome measurement reflections should occur during project

evaluation (Benjamin, 2012, Meyer & Murrell, 2014). For this reason, an outcome based

evaluation was used for this project.

Specifically, the type of outcome evaluation that will be used to continually evaluate this project will be a program logic model which is comprehensive in nature (Benjamin, 2012). A program logic model depicts and tells the story of a program's expected performance and should be well defined (Lui, 2012; Mc Laughlin & Jordan, 2004; Stehle, Spinath & Kadmon, 2012). Therefore, the effectiveness of this project will be determined by a variety of ways. First the amount of individuals and organizations reached through this project will be used to measure the potential influence on people reached through the distribution of the various resources such as the white paper report, fact sheets, presentation and website. In addition, the amount of resources distributed will be monitored by the researcher as follow up was made with the participating individuals and organizations. The website will be also monitored for the number of unique viewers reached; the white paper by the amount of reports distributed, the presentation and website by the amount of people who attended or independently viewed them. Next, a satisfaction survey will be sent out to providers and organizations periodically. Additionally, the online option, which will be clearly defined in all distributed resources, targeted parents and other stakeholders to partake in the short satisfaction survey. An opportunity for self-assessment is another method of evaluation that is available and encouraged for providers' use. This self-assessment can be conducted in the fall and spring of each school year after implementation of recommendations. After a year of implementation, a long term plan to evaluate based on future KRR scores will be discussed expansively in the white paper report (Appendix A).

Proposal for Implementation and Timeframe

According to Meyer and Murrell (2014), the creator of the evaluation should be clear on the purpose of the intended change and desired results as well as include a short term, intermediate, and long term outcome evaluation of this project. The time frame was one year for full implementation. The spring time was ideal since that is the time period where most parents venture out to find information regarding child care and schooling for the upcoming fall school year. This timeframe ensured that the short term expected outcomes were met before continuing onto the intermediate and long term outcomes. The short term goal, which will be 0-6 months, is to begin distribution of resources throughout the community and online in order to bring an awareness and share the findings of this study. The intermediate goal, which will be 3-9 months, will monitor the number of fact sheets and white papers that has been distributed by these organizations to parents, and providers. During this time, the number of unique hits on the website page will be monitored. The long term outcome would be to determine if there has been an increase in the awareness of the importance of the quality of ECE for kindergarten readiness. This will be determined by an increase in training requests to the early learning coalition on the use on environmental rating scales since that score predicts ECE program quality. An increase in awareness and in the researcher's recommendation could also be determined long term by an increase in participation for ECE trainings provided by the early learning coalition. For further details on the implementation and timeframe, see Appendix A as it discusses it in depth.

Project Implications

Local Community

      This project has implications for increasing the awareness on a larger scale as to the findings that the quality of the ECE center positively affects the kindergarten readiness scores of the student. Once parents, the community and organizations are made aware of this phenomena, they in turn may pay closer attention to the KRR rates that ECE centers receive. This project also has implications for an increase in teacher training (Douglas, Carter, Smith & Killins, 2015). With this awareness, the existing free training provided by the early learning coalition and other organization to parents and providers, an increase in participation should be seen. As parental awareness increases, so will questions to providers concerning their KRR rates. This will in turn equate to an increase in questions regarding the provider who will begin to seek additional ways to improve their school's KRR rates. The KRR rate equates to more students in the ECE programs being ready for kindergarten so as this find becomes more popular, more stakeholders should take interest. This information will also be available online for easy access on the Start Ahead Campaign website.

Far Reaching

      The implications of this study are far reaching. In addition to having the white paper report and the fact sheet online, links to the KRR website and the early learning coalition will influence a broader audience. Parents and other stakeholders will have access to a plethora of information regarding scores to help parents choose quality programs for their young children. Alternatively, this increase in quality ECE programs

should reflect in the students' FLKRS scores for years to come. Therefore, in order to measure the increase of quality ECE programs across the state, KRR is currently be utilized. These scores provide continued evidence of the role that quality plays in a child's kindergarten readiness rating. Finally, as information is made available online through my report, this allows other counties, states and nations to have access to and share my findings. In turn, my recommendations can then be implemented in their local organizations.

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

This section began with an introduction and brief description of this research project. This was followed by genre chosen for the project which was a policy recommendation with detail. Also discussed was background of the problem along with a summary of the findings, a rationale for the project, a review of the literature, a description of the project, the project evaluation plan, and project implication to bringing about social change. This social change specifically was to increase the awareness of parents, organizations, the community and worldwide via the internet on the Start Ahead Campaign website with the purpose of sharing the findings that the higher the quality of the ECE programs, the more prepared for kindergarten and young children are based on the KRR of the program as discussed in detail in Appendix A. The next section of this study completes this project. It entails my reflection on the project's strength and limitations, recommendations for alternative approaches, scholarship, project development, leadership and change. This will be followed by a discussion on the

reflection on the importance of the work, the project's implication, application and directions for future research.

Section 4

The final section of this study addresses the project's strength and limitations in pursuing the goal of the project. Also, included in this discussion are the recommendations for remediation of limitations, scholarship, project development, and leadership and change. These recommendations will target a variety of stakeholders ranging from parents to organizations. Finally, this section includes a reflection on the importance of the work, implications, applications, and directions for future research.

Project Strengths and Limitations

The dissemination of the topic of the effects of quality ECE on young children's kindergarten readiness is of utmost importance. Although a vast amount of the preliminary research was on a national level, the research for this project was conducted on a local level. The findings of this localized project will be both timely and relevant. The information gathered and analyzed can be used to help organizations or private entities apply for grants and other available sources of funding. The methods that will be used to publicize this information can be adopted for use by other counties, districts, or states to distribute their similar local findings.

One of the advantages of the design of this project will be its objective to share its findings with a mixed audience that includes large public organizations, parents, and the community. This project will have the potential to reach a wide audience due to the use of various distribution methods. The white paper report will be useful at the organizational level. However, individuals who desire a more in-depth examination of the study can also use this report. For those who require a less formal presentation of the

findings, the project will include a fact sheet, which will be a one-page, eye-catching document with graphics and imagery to attract readers' attention and provide a snap shot of the message. The fact that the white paper and fact sheet will be available online creates a potential for this project to be shared globally and expands its impact.

This project will provide a great platform for implementing social change on a broad scale. As parents become more aware of the importance of quality care, they may demand more from providers. Providers are seeking ways of increasing the quality of ECE programs, and the early learning coalition has the capacity to provide these trainings. This in turn will affect the parents educational options for their children, funding for ECE programs, and administrators school based decisions for young children. As awareness increases, so will an increase of a strong academic foundation for young children. The project may create a ripple effect as awareness increases on this topic.

Upon embarking on this project study, I made the assumption that the overall scores from the environmental rating scale, ECERS-R, should be used to rate ECE programs. However, after analyzing the collected data, I realized that certain subsections of the rating instrument can also reveal some compelling information. An increasing amount of accountability is being requested of ECE centers as funding to these organizations has increased. With this comes an increasing demand for center assessments (Ebbeck, Teo, Tan, & Goh, 2014). Therefore, recommended areas of improvement by researchers are essential for the improvement of programs (Spaulding, 2008). For example, one of the subsections of the ECERS-R is language and reasoning. It

would be interesting to see how that particular score correlated with how well students were prepared for kindergarten based on their FLKRS scores.

Another limitation is the lack of comparing the teachers' level of training based on their number of professional development hours or education degree to the students' scores on the FLKRS. According to a recent study in early childhood education, professional development has a positive impact on student learning (Gomez, Kagan, & Fox, 2015). Therefore, professional development should be encouraged to improve student achievement. This may also help in determining whether additional teacher training correlates with higher quality programs.

Another factor that may have been a limitation in this project study relates to the students' quality of education as it relates to the parents' education level. Although the scores from the ECERS-R rates the center and how the teacher interacts with the students, it does not take into account the parents' education level. Recent research shows that this factor plays an important role in the child's social, behavioral, and academic success (Morrison, Story, & Zhang, 2015). These factors are key in finding solutions to increasing the number of quality ECE centers in this county and around the world. Therefore, the recommendations discussed in depth in the white paper report (Appendix A) serve as alternative approaches to help improve the quality of ECE programs and may bridge these gaps locally with the hopes of increasing awareness throughout the state and nation.

Recommendations for Alternative Approaches

Due to the findings of this project study, there are a few alternative approaches I would recommend as solutions to the local problem. The first recommendation is to require ECE programs to use approved ERS assessments. The programs in this study receive program funding from the local early learning childhood coalition. This coalition has trained individuals who have available resources to go out to these centers and perform ERS assessments. This will also allow for center directors to self-assess using these raters to improve the quality of the programs. I recommend that this rating be a requirement for those receiving funding.

Another recommendation that may help increase program quality is the level of teacher training available for all center types. These center types range from family day cares to large for-profit centers. A platform should be made available from the early learning coalition to provide peer-to-peer collaboration. This setting will allow for teachers and directors to share ideas and successes regarding the use of ERS to improve their programs' quality. Through the use of this platform, dialogue may increase among ECE providers and teachers. In turn, this may also expand the knowledge of the benefits of using an ERS among peers and may help create an atmosphere of empowerment for an end result of increased program quality.

An increase in awareness is vital to the expansion of quality ECE programs in this local county. Therefore, I recommend that the dissemination of marketing resources be expanded. This includes expanding distribution of materials to community centers, religious organizations, sport centers, and various places that parents of young children

may frequent. Easy-to-read formats such as flyers, brochures, white paper reports, and fact sheets will increase distribution and readability in both online and print versions. Social media and television are also recommended methods of targeting parents of young children to increase awareness of the importance of choosing quality ECE programs for their children. Resources that are shared with the community will also focus on reducing the number of parents who choose relatives and friends to care for their young children and encourage parents to choose quality ECE programs instead.

Scholarship

During this project study, I have grown in my role of being a scholar. I have spent countless hours researching previous, present, and future issues pertaining to young children's education. The required courses that I completed broadened my skills, knowledge, and expertise in the education field. Learning the process of networking and partnering with public, private, and faith-based organizations was a necessary skill that I was able to expand upon. An entire course was dedicated to teaching me how to develop a community of practice to ensure that the proper support systems are in place during and after the enormous undertaking of this project. Because of this skill, I am now considered a community advocate who specializes in early childhood education. I am now at the consultant level concerning issues affecting our local early childhood education structures. I plan to seek out opportunities for grants and other funding and partner with other organizations to promote high quality ECE programs for young children. Now that I have experience with collecting and analyzing data, I can continue to conduct independent research on this topic and publish findings in peer-reviewed journals. I take

my responsibility of being a scholar seriously and will continue to stay abreast of

research and continue to find creative ways of sharing these findings.

Project Development

When I began my journey on this project, I already possessed a passion for

educating young children. However, as I conducted research and expanded my

knowledge on this topic, I became even more resolute in sharing this project's message.

The first few sections of this study were laborious as they demanded a large amount of

research. I read and reread empirical studies to find common themes and get a balanced

point of view. The process of gathering the data taught me the importance of positive

community partnerships. The willingness of organizations to share their data, whether

public or private, made this project a success. Flexibility was unfortunately required as I

also found out through this process that not receiving participation from some

organizations complicates matters and consumes a lot of extra time. Therefore, this

project required more time than I originally anticipated.

As I considered options to share my findings, the white paper seemed like the

most appropriate means of disseminating the information in a clear and concise manner

to various target audiences. This method will allow stakeholders to get in-depth

understanding of the findings without the cumbersome and sometimes intimidating

language of a more formal doctoral research study. Although time consuming, the white

paper report will be necessary to ensure that various organizations have the opportunity

to learn about these important findings that are currently affecting education today.

Although the white paper report is the main tool being used to share the findings, it will

be accompanied by a presentation and a fact sheet to reach a wider audience. Parents and other community members may find it easier and more desirable to read the information in these other formats. To increase the impact of this study, all the materials of this project will be available online to broaden the reach and increase awareness. The major intent of this project is to reach stakeholders with the message of the importance of providing high-quality ECE to young children.

Leadership and Change

The work of Schon (1991) as it relates to reflection in action was influential to me throughout the writing of this research project. Schon described an advanced practitioner as one who thinks about what is being done as it is being done. According to Clara (2015), the theory of reflection in action is mandatory in teacher education research. As a professional leader in education, I needed to purposefully reflect on my project while I was in the process of completing it. This was necessary to make decisions as issues came up during my research and to stay focused on the issue on hand. I also needed to incorporate reflexive practice as an integral part of my research process. Reflexive practice, though similar to reflective practice, adds hindsight to the reflection process to ensure that reflective practice is indeed working (Thompson & Pascal, 2012). By using this additional practice, I was able to not only think about what I was doing but to look back on my research, reflect, and self-analyze. This helped ensure that I was using my professional knowledge to its fullest, that my actions were grounded in my professional values, and that I was fostering an environment for learning and developmental opportunities to flourish. By going through this research process, I was able to embrace

change by not only recommending change in current policies but also to allow for change as I obtained new knowledge regarding this topic. Because of all the changes and growth that have taken place through the process of this research study, I now have the confidence to view myself as a leader practitioner in the field of early childhood education.

Analysis of Self as Scholar

The topic of early childhood education is of high interest to me. As a high school special education teacher, I was always curious to find out more about the origins of achievement gaps. The evidence always appeared to derive from a lack of solid early childhood education. Therefore, as I thought about the project study, it seemed appropriate to take on the responsibility of sharing my findings with various stakeholders in an effort to bring about social change. I was able to spend many hours conducting research for this study. This project's undertaking also meant that I would be willing to attend academic residencies to learn of the expectations regarding this mission. During residency, I was able to network with others going through a similar journey and glean encouragement along the way from them as we kept in touch. I also attended an intensive writing retreat to help with the form and style that was becoming cumbersome. This retreat gave me the momentum I needed to push through to the end of the project. As I reflect on my journey, I can see clearly how the process has propelled me into the status of a scholar.

Analysis of Self as Practitioner

As an educator who has taught a wide range of grades from pre- K to high school, I have become more resolute as to the need for a strong academic foundation. In my current role as an exceptional student specialist at the high school level, I am able to have a better understanding of some of the struggles the students are facing. I am able to make recommendations for interventions for these students based on my research throughout the process of this project. I am also able to use leadership skills to consult with general education teachers regarding current strategies.

The completion of this project signifies the beginning of another aspect of my development as a practitioner. As my project becomes more popular, I expect to receive email or other correspondence. I will have more time to dedicate to creating a constant flow of new research and data to share with the public. The completion of this project will also allow me to be viewed as an expert in the field allowing for my project to become more accepted among other educators.

Analysis of Self as Project Developer

My participation with many community advocacy groups has helped me with my project. I haveexperience in contacting private, public and faith based organizations in search of receiving their support and partnerships for various causes. Therefore, when it came time to implement my project, I had a mind map that helped formed the project. When the setbacks and disappointments came as one of the major organizations refused to cooperate, I was able to meet it with resilience. A good work ethic was necessary in order to push through with this project.

My past experience as a preschool director and ECE teacher also helped in my decision in developing this project. Being able to relate to the needs and demand of ECE providers helped shape my decisions for many of my recommendations. As a former preschool director, I was able to see the growth in teachers as they increase in training. In turn, I used this observation to help formulate the process of this project. Another important role that has helped me shape this project is my role as a parent. I chose to incorporate parents as an important stakeholder in this project because I agree that parents are a child's first and best teacher. Overall, I see how my various education experiences came together to help develop a well-rounded project.

Reflection on the Importance of the Work

As I reflect on my journey through this research project, I realize that though many lessons were learned, there are many more to come. Some important revelations I learned as I conducted my research was that I too could share my knowledge with the world. The process of this project has taught me about the importance of collecting data for decision making. I have also found through my research, there is indeed a need for quality ECE programs in this county. Through my recommendations, I will be able to give others insight on strategies to help close the academic gap for many young learners with the provision of quality ECE. The discussion of ECE program quality does not receive as much attention as kindergarten to high school education. Therefore, this project is of utmost importance as it increased awareness on this topic. I was able to educate various stakeholders of our obligation as a society to provide academic foundation to all children.

This project also taught me about persistence. As I reflect on this project, I recall times when I just did not feel like writing or reading another research paper; or the time when I became disheartened as one of the initial organizations refused to share their data. I had to regroup and seek out another organization. Despite these obstacles, I learned to persevere and push even through the obstacles of everyday life challenges. Some of the tough challenges included trying to balance my time between my children, spouse, my extended family and friends, my charity obligations and my project. Overall, this project allowed me to grow both in my knowledge in the field of early childhood education as well as in my personal life through character building.

Potential Implication for Social Change

Although my project targeted kindergartners, a more recent study has stated that the effects of low quality programs have negative cognitive effects on toddlers (Ruzek, Burchinal, Farkas & Duncan, 2014). Therefore, although this study was conducted using students entering kindergarten, the potential implication is that this county can focus research on younger children who are birth to three years old. Research can also focus on the KRR scores of schools based on the neighborhoods where they are located. This could help determine if some neighborhoods are in more need of quality centers than others. Another potential implication is for fostering a long term focus on the impact of teacher professional development hours on kindergarten readiness rates. This could determine if teacher training is a quality indicator for ECE programs. This agrees with Vygotsky's social-cultural theory which states that there is a relationship between

environmental factors such as culture and language and a child's academic and social

development (Stoltz, Piske, de Freitas, D'Aroz & Machado, 2015).

Implications, Applications, Directions for Future Research

The implication for social change in this project was far-reaching in nature. It was

designed to involve stakeholders ranging from individuals to organizations. The white

paper report intends to reach organizations such as public school leaders, k-12 teachers,

early childhood education organizations, daycare directors, faith-based organizations and

the local community. This whitepaper will be appropriate in that it will meet the need of

those who may have been intimidated in the formal language of a doctoral level research

study. It is also purposeful in meeting the demands of those with time constraints who

may feel that the research paper would take too much time to read. In order to expand my

reach even further, I included a fact sheet into this project. This fact sheet would allow

the results of my findings to be shared with parents or other individual who may have not

purposefully wanted the information. This fact sheet was designed to be an attractive

flyer equipped with attention grabbing pictures and graphs. Therefore, as individuals read

this factsheet, they will be informed of the importance of the provision of quality ECE

programs in our county. This fact sheet will also provide its readers with a website that

contains the white paper, PowerPoint presentation, and other data facts about the project.

The online presence will give this project the potential of global impact as countless

individuals and organizations around the world can read my recommendations on how to

implement social change in the area of early childhood education.

Although my project targeted kindergartners, a more recent study has stated that the effects of low quality programs have negative cognitive effects on toddlers (Ruzek et al., 2014). Therefore, although this study was conducted to include students in pre-kindergarteners entering kindergarten, in the future, this county can focus research on younger children. Research can also focus on the KRR scores of schools based on the neighborhoods where they are located. This could help determine if some neighborhoods are in more need of quality centers than others. Another long term focus of research could be on teacher professional development hours. This could determine if teacher training is a quality indicator for ECE programs. This agrees with Vygotsky's Social-Cultural theory which states that there is a relationship between environmental factors such as culture and language and a child's academic and social development (Stoltz, et al., 2015). Therefore, for future research, this topic has the potential of spurring on social change to include an even wider range of children than intended. This may have an impact on answering the long standing questions on why some schools continually fail. The additional in-depth recommendations in this project (Appendix A) can effect decisions in education for years to come.

Conclusion

I feel privileged to have been given the opportunity to become influential in adding to the body of knowledge concerning the need for quality ECE programs to ensure a solid academic and social foundation for young children. Through years of reading empirical researches ranging from the past few decades to more recent researches, I have grown in my knowledge of early childhood education. I was then able to expound even

further on this important topic by conducting my own research project and share in my

recommendations to bring about social change. As parents, organizations, the community

and ECE providers become more aware of the impact the learning environment has on a

child's cognitive abilities, it is my hope that funding and training will increase. It has

been often said that knowledge is power. Therefore, my research project may empower

stakeholders, from parents to legislative leaders, to demand and expect more from ECE

programs. In the end, this may result in an increase of quality programs through the use

of environmental rating scales (ERS) similar to the ECERS-R. These ERS scales consist

of quality indicators that can be used as a map to increase programs' quality (Hong,

Howes, Marcella, Zucker & Huang, 2015). Through the work I have presented in this

project, I plan on continuing to recommend and advise program directors, organizations

associated with early childhood education, parents and the community, to use ERS to

create and enhance ECE programs throughout the community and around the world.

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Appendix A: The White Paper

The Effects of a Quality Early Childhood Education on Kindergarten Readiness Scores in a

Florida School District: A White Paper by Janis Monrose Modeste

Purpose

Despite national efforts to have all children ready and eager to learn upon entering kindergarten, an overwhelming amount of research has shown that a significant number of students enter school unprepared each year. Young learners who enter school unprepared are at risk of remaining behind for the rest of their school career. Therefore, the purpose of this white paper report is to provide a summary of the results of a correlational research study which took place in a Florida school district and to share recommendations necessary for the implementation of social change in early childhood education (ECE). The data analysis of this study coincides with empirical research that the lack of quality ECE centers results in a significant number of students entering kindergarten without sufficient academic foundation (Goffin, & Barnet, 2015; Hong, et al., 2015). This report established that there is indeed a relationship between the quality of an Early Childhood Education (ECE) program and students' kindergarten readiness scores. Recommendations are presented in the need areas as shown throughout this research study. This project is a part of a complete doctoral study with the in depth findings, data analysis and review of literature, which is available upon request.

The findings of this study presented evidence based on the environmental rating instrument, Early Childhood Environmental Rating Scale-Revised (ECERS-R), which

was used by the early learning coalition to rate the ECE centers. Specific attention was placed on the environmental qualities of the ECE centers (N=55) according to the ECERS-R scales and subscales. The ECERS-R scores were then compared to the Florida Kindergarten Readiness Screener (FLKRS) scores which reflected the students' academic preparedness, as rated in their first 30 days of kindergarten. This study found that centers with the higher ECERS-R scores yielded students who more prepared for kindergarten based on the FLKRS scores. The implications are high stakes issues because when students enter kindergarten prepared, they will enjoy more academic success. They will also have a solid academic and social foundation to build their academic career upon. This in turn affects them socially as they will be more apt to enjoy learning and have a higher self-concept of their cognitive abilities which fosters more success.

The Problem

Despite an increase in education initiatives, it has been found that 30 % of Florida children start school behind and most remain behind for the rest of their academic careers (FLDOE, 2014). A growing number of research has shown that young children with at-risk factors, such as low socio economic backgrounds, are most likely to attend low quality ECE programs. This local project study has given evidence that the quality of the program was an indicator of students' kindergarten preparedness. Using the environmental rating scale, ECERS-R, the early learning coalition was able to rate participating ECE programs to determine their level of quality. This level of quality was compared to the FLDOE's FLKRS score which determines whether or not a student is

prepared for kindergarten. This assessment is given to all kindergartners in their first 30

days of kindergarten. The results for each program is then calculated from the students

FLKRS scores and results in a Kindergarten Readiness Rate (KRR) for each provider.

The results from this study showed that 23.64% of the centers (N=55) evaluated

were low performing schools with a significant number of their students unprepared for

kindergarten. This number needs to be reduced. Therefore, it is the aim of this project to

supply recommendations for policy changes at the individual and organizational level

that can increase the quality of ECE programs to provide more students with the adequate

preparation needed to succeed in kindergarten and beyond. For additional resources, the

researcher has made available a one-page fact sheet and website are available for your

convenience.

Current Policy

The Office of Early Learning has been tasked by the FLDOE to assess

kindergarteners on their first 30 days of kindergarten. This assessment is called the

FLKRS and these scores are then used to rate the quality of the programs by giving each

center a kindergarten readiness rate. These ratings are published by the local early

learning coalition for parents and the general public. Up until the 2013-2014 school year,

ECE programs were required to receive an ERS that was assessed by the early learning

coalitions for schools that received school readiness funding. But recently, this practice

has converted into schools having the choice to be rated or not. Stakeholders, especially

parents, may not be fully aware of the implication these scores have on their child's

academic success. When stakeholders await KRR schools to determine school readiness,

they are received after the programs have ended. By this time, the students are already in kindergarten and it is too late to make adjustments to the programs in time to ensure a strong academic foundation for the students in these programs.   Therefore, too many students end up in kindergarten without the proper educational foundation to handle the ever increasing kindergarten curriculum. Currently, programs are not being mandated to be rated using an ERS and thus programs are in need of simple success maps to follow.

The work of the Office of Early Learning and this county's early learning coalition has provided a foundation for ECE programs' success. This white paper gives recommendations to the existing policy that may help implement and utilize current resources and thus increase and/or enhance the availability of quality ECE programs. It's not just a matter of programs being available, but the quality of the programs that determines students' success. These recommendations will lead to an increase in the amount of quality programs available in our communities as well as an increase of quality in our existing programs. This result of this research study has provided evidence that an ERS can be used as an indicator of program success. The ERS gives providers immediate strategies and look-fors that can be immediately implemented to ensure programs' effectiveness. Therefore, its use in ECE programs should be strongly encouraged along with the participation of the current teacher training provided by the early learning coalition.

Data Analysis

The FLDOE and the State Board of Education is required by law (Section 1002.69(5), Florida Statues (F.S.)) to calculate a kindergarten readiness rate (KRR) each

year for each private or public school Voluntary Prekindergarten (VPK) Provider. This KRR measures how well each provider prepares their students for kindergarten. In turn, the early learning coalition, goes into these centers and rate them using an environmental rating scale to determine the programs' quality based on a set of scales and subscales. Using these instruments, a correlational research study was designed. The two variables used in this study was the ECERS-R scores of the centers along with their calculated KRR results to determine if a correlation exists between the two sets of scores.

Once the data was found to be continuous, the Pearson Correlation was used to decide whether the data was statically significant. First, the Shapiro-Wilke test was used to check for normality. This was calculated using the Statistical Package for the Social Sciences (SPSS) for both variable, ECERS-R (Figure 1) and KRR (Figure 2). The normality can be seen visually by the bell shaped graph in the histograms.
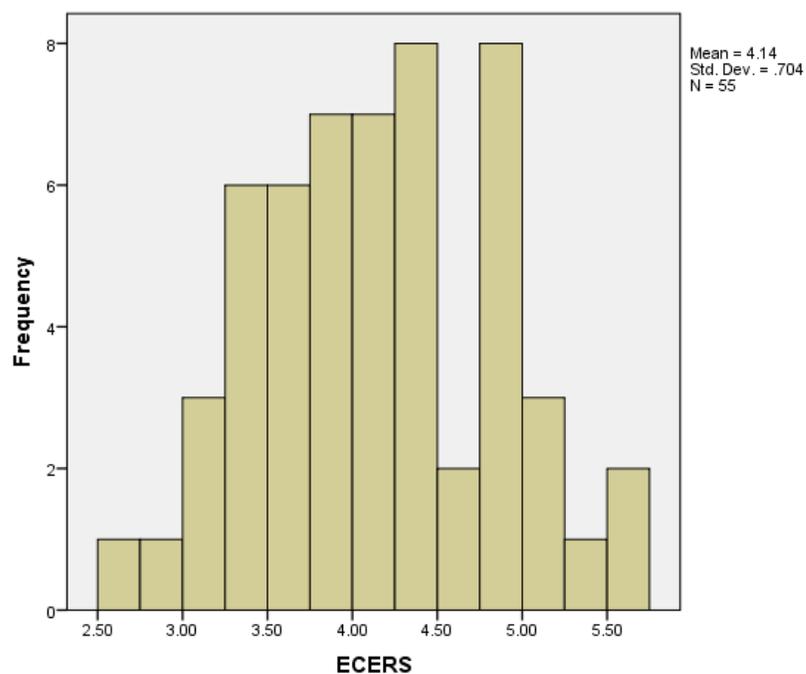
Figure 1. This figure illustrates the histogram graph for a visual check for normality for ECERS scores (y-axis) for *n* = 55. The frequency is the ECERS scores and how often they occur.
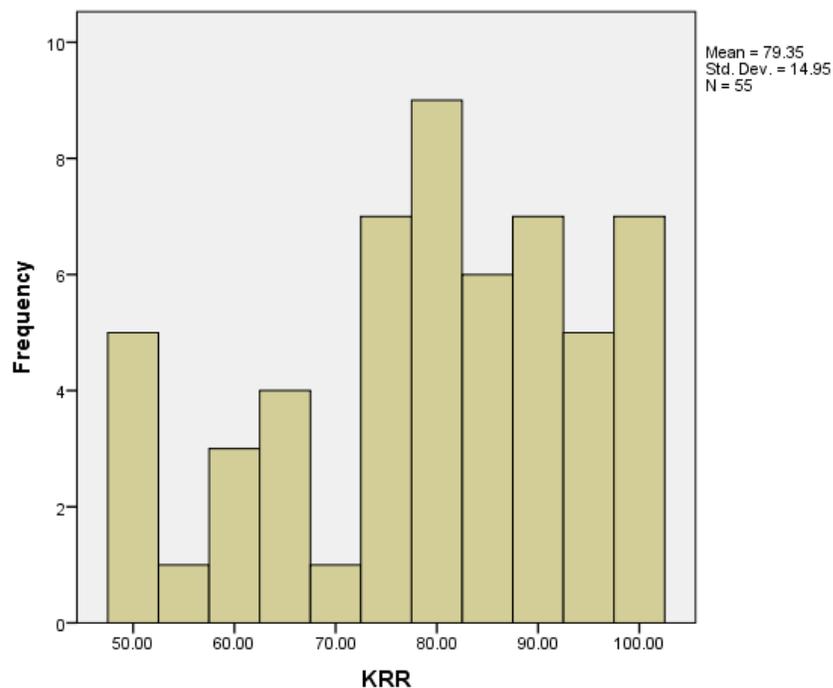
Figure 2. This figure illustrates the histogram graph for a visual check for normality where *n* = 55. The frequency is the KRR scores and how often they occur.

A scatter plot was then created to plot for a comparison to determine if a linear relationship existed between the two variables, ECERS-R and KRR. This plot was inspected visually and found that a linear relationship existed between the two variable and that no significant outliers existed. Outliers are simply scores that may potentially skew the results of the study. For more in-depth discussion on outliers found before final data analysis, see complete doctoral study.
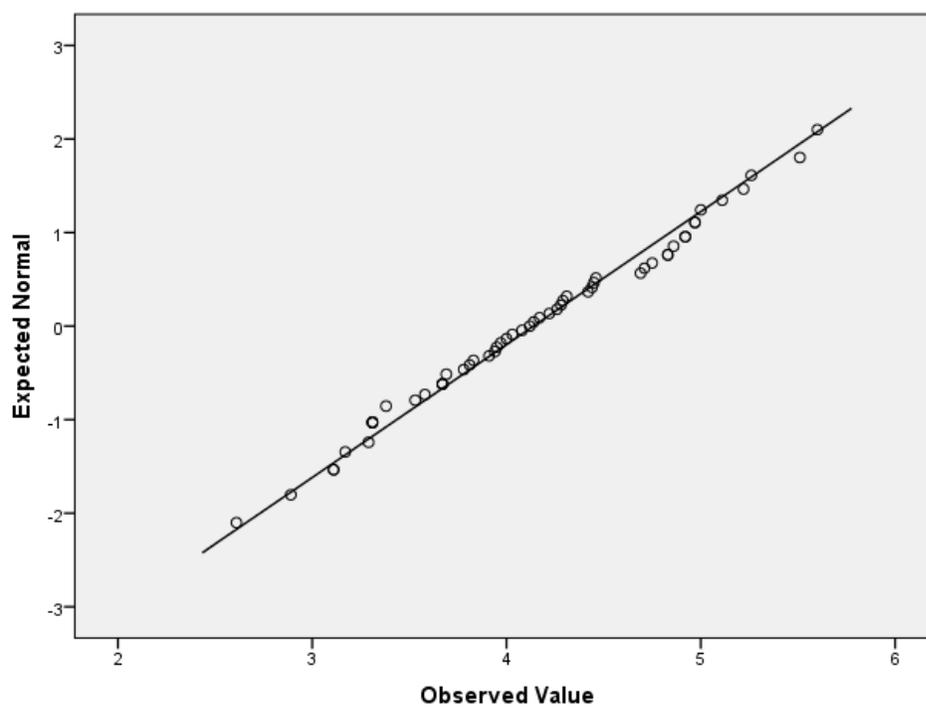
Figure 3. Scatter Plot of ECERS scores for a visual check for showing linearity for *n* = 55.
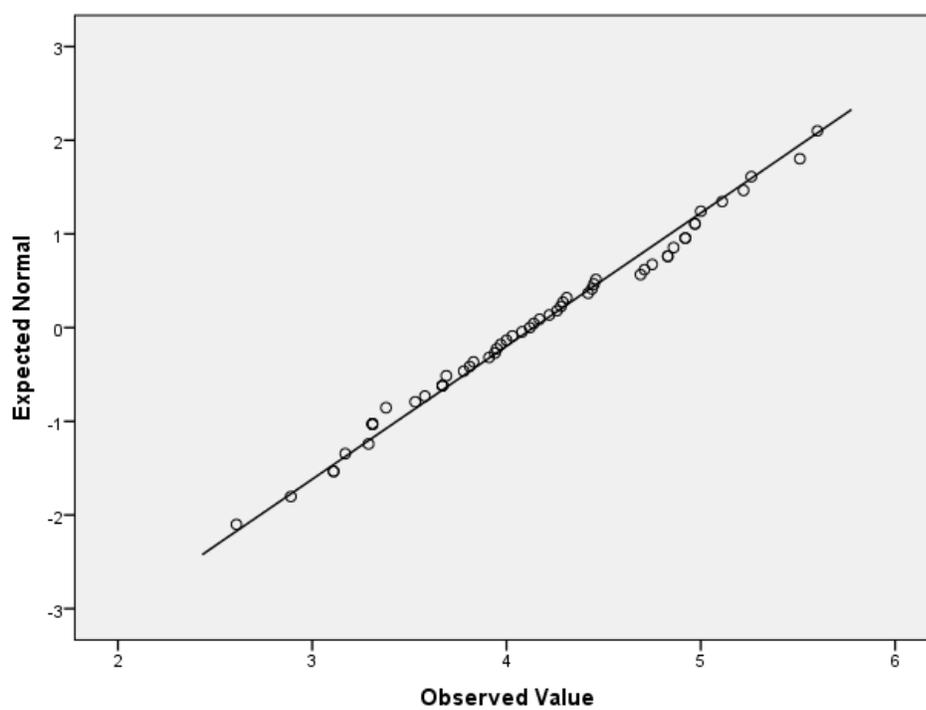
Figure 4. Scatter Plot of ECERS scores for a visual check for showing linearity for *n* =

55.

The ECERS-R and the KRR was calculated and analyzed using the Pearson

Correlation to determine if there was a correlation between the scores. The results

indicated that there was a positive and significant correlation between the centers'

ECERS-R scores and their KRR scores at the *p*<0.01 level two tailed and r(53) = .38, *p* =

.004.

Table 1

Pearson's Correlations

		ECERS	KRR
ECERS	Pearson Correlation	1	.380[**]
	Sig. (2-tailed)		.004
	N	55	55
KRR	Pearson Correlation	.380[**]	1
	Sig. (2-tailed)	.004	
	N	55	55

** Correlation is significant at the 0.01 level (2-tailed).

This finding clearly shows that there is a significant and positive correlation

between the quality of an ECE program and the students' ability to perform academically

in kindergarten. With this knowledge, every effort should be made to give all young

children the opportunity to attend a quality ECE program in their neighborhoods. As

indicated in my recommendations, this effort cannot be a success without the

participation of all stakeholders which includes parents, organizations associated with

young children and their families, and the community as a whole. In order for social

change to be effective and widespread, all stakeholders' involvement is necessary.

Recommendations

Recommendation 1: The first recommendation is that ECE programs who receive

school readiness funding be required to utilize an approved ERS to be assessed and to

self-assess their programs' quality. The ERS are founded on research based strategies that

create quality ECE programs. Many of these strategies are mentioned in detail in the

complete doctoral study. The early learning coalition is no longer required to assess each

ECE programs as they did in the past. Currently, the early learning coalition in this

county conducts these assessments upon request. However, when the responsibility is

given to the providers to self-assess, ownership of programs' improvements will ensue.

Providers will be able to accomplish the art of reflective teaching and make continuous

research-based enhancements to their programs. It is imperative that providers be made

aware of the crucial part their program's quality plays in a child's future academic

success.

Recommendation 2: In order for the wide spread use and willingness of an ERS'

use to occur, teacher and provider training on the use of ERS will be necessary (Tarrant

& Huerta, 2015). This can be done by sharing this white paper report, fact sheet and

presentation to teachers to ensure that they understand the magnitude of their role in

children's academic success. This will cause them to be more willing to participate in the

trainings and awareness campaigns that are initiated. The early learning coalition

currently offers many various ECE training workshops free of charge to providers and

teachers. This serves as evidence that the coalition has the capacity and support system

in place to provide the needed provider and teacher training. This will entail the provision

of online or face to face training by the early learning coalition on how providers can

simply read and interpret the scales provided in the ERS manuals. This will enable

providers to tailor their programs according to the research based strategies highlighted

on the scales provided by the ERS they choose to use.

This can be followed by credential incentives. Upon completion of training,

participants should have the opportunity to earn credits or points to increase professional

development participation. By issuing credentials for professional development

collaboratively with teacher assistants, teachers and program directors on the use of an

ERS, an increase in its use will occur (Douglass, Carter, Smith & Killins, 2015).

Recommendation 3: Providers should be rewarded by a monetary incentive that

allots additional funding per student for their provision of higher quality programs. Most

of the ECE programs receive school readiness funding from the early learning coalition

so the coalition would be responsible to give the monetary incentives. Therefore, it is

highly recommended that those programs that improve and raise their quality level based

on their ERS scores should be compensated. The long term savings for this country is

well worth the effort.

Recommendation 4: This next recommendation will require the use of the

resources provided by the researcher through the creation of a marketing campaign to

increase the awareness of the importance of ECE in the academic and social long-term success of young children. The Start Ahead Campaign was created to get community partners involved, such as the early learning coalition, other public and private organization, faith-based organizations, and individuals, in the dissemination of information. When parents are made aware of how their choice of child care programs affect their child's long term academic career, they will demand more from ECE programs. Parents will also begin to pay closer attention to quality indicators if it is presented in an easy format such as ERS. Parents and provider can then be speaking a common language when it comes to quality programs. This ERS rating is important since the KRR scores rates the program after the child has left. This late receipt of information does not help for the students' preparation before entering kindergarten. The KRR scores are very useful for the future planning of the program. However, current assessment helps steer the programs in the direction of quality.

In order to help with the dissemination of the resources, it is recommended that organizations distribute copies of the parent and provider factsheets as well as copies of the white report. These easy to read formats of the local research findings will bring an awareness to programs' quality and their significance in building a strong educational foundation for young children. Another available resource will be the online copies of the white paper and fact sheets in order to reach a wider audience. Individuals will have access to other organizational partners' web page as well as surveys and self- assessment tools for project evaluation. This will help to promote quality ECE programs in our county to ensure that all our programs continuously work improving.

Recommendation 5: The issue at hand is not only to promote the increase of not only quality ECE programs, but to promote an increase of students who attend these programs. Many parents opt for relatives or friends to care for their child instead of quality child care centers due cost and convenience factors. Therefore, it is recommended that the early learning coalition create TV and social media commercials that will target parents of young children and share the findings of this research project with them. As this awareness is shared among parents, an increase should ensue in students attending ECE programs and we should see an increase in kindergarten readiness.

Recommendation 6: Create a platform where directors and teachers of ECE programs can collaborate with peers to discuss ways in which the use of an ERS improved their programs' quality. In partnership with the early learning coalition, provide a workshop that would combine both training and group activities that foster dialog amongst peers. This will encourage a sense of empowerment and knowledge as teams collaborate about research findings that may affect their students.

Implications

The implications for providing quality ECE for our country's young children are far-reaching in nature. The ramifications range from economic, social and academic long term effects. Students who start kindergarten behind, continue to stay and fall even further behind as they progress in their academic careers. Studies indicated that students who struggle in school are more likely to drop out. In turn, students who drop out of school earn less and have an increase chance of incarceration (Anderson, 2014).

Therefore, every effort should be made to give students, regardless of their socio economic or cultural backgrounds, a strong academic foundation through the provision of quality ECE programs. An increase in students attending quality ECE programs would equate to an increase in the number of students prepared for kindergarten. The current percentage of students not prepared for kindergarten should decrease as more students gain the academic foundation for kindergarten.

Summary

The goal of this project, named the Start Ahead Campaign, is to provide the resources to help spread the word concerning the effects of ECE programs on academic success. The researcher sought to share her findings of the results from evaluating the relationship between centers' quality, as measured by their ECERS-R scores and the students' kindergarten readiness, as measured by their programs' KRR. The findings were analyzed with recommendations that shared what our role as a society entails in bringing about a social change in the area of ECE. These two evaluations serve as important tools for the long term improvement of policies regarding the continued provision and increase in quality ECE for our county and nation alike.

PRESENTATION

Slide 1

Slide 2

Slide 3

Slide 4

Slide 5

Data Analysis

- The two variables used in this study was the ECERS-R scores of the centers along with their calculated KRR results to determine if a correlation existed between the two sets of scores.

- Once the data was found to be continuous, the Pearson Correlation was used to decide whether the data was statically significant.

Slide 6

Data Analysis

- A scatter plot was then created to plot for a comparison to determine if a linear relationship existed between the two variables.

- This plot was inspected visually and found that a linear relationship existed between the two variable and that no significant outliers existed.

- Outliers are simply scores that may potentially skew the results of the study.
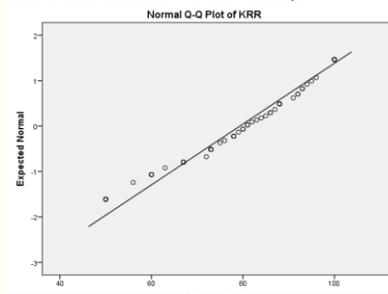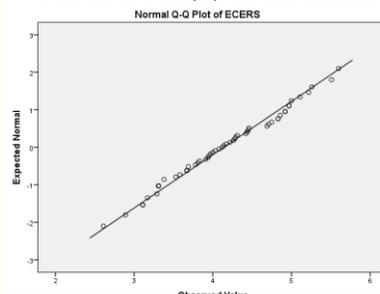
Slide 7

Data Analysis

- The ECERS-R and the KRR was calculated and analyzed using the Pearson Correlation to determine if there was a correlation between them. The results indicated that there was a positive and significant correlation between the centers' ECERS-R scores and their KRR scores at the 0.01 level two tailed test.

- This means that there is less than a 1% probability the data happened as a result of chance rather than the quality of the ECE program.

- This finding clearly shows that there is a significant and positive correlation between the quality of an ECE program and the students' ability to perform academically in kindergarten.

Slide 8

Recommendation 1

- The first recommendation is that ECE programs who received school readiness funding be required to utilize an approved ERS to be assessed and to self-assess their programs' quality two times a year.

- The ERS are founded on research based strategies that create quality ECE programs.

- It is imperative that providers be made aware of the crucial part their program's quality plays in a child's future academic success.

- However, when the responsibility is given to the providers to self-assess, ownership of programs' improvements will ensue.

-

Slide 9

Slide 10

Slide 11

Recommendation 4

- This next recommendation will require the use of the resources provided by the researcher through the creation of a campaign to increase the awareness of the importance of ECE in the academic and social long-term success of young children.

- When parents are made aware of how their choice of child care programs effects their child's long term academic career, they will demand more from ECE programs.

- This ERS rating is important since the KRR scores rates the program after the child has left.

- The KRR scores are very useful for the future planning of the program. However, current assessment helps steer the programs in the direction of quality.

Slide 12

Recommendation 5

- The early learning coalition create TV commercials that will target parents of young children and share the findings of this research project with them.

- As this awareness is shared among parents, an increase should ensue in students attending ECE programs and we should see an increase in kindergarten readiness.

Slide 13

Recommendation 6

- Create a platform where directors and teachers of ECE programs can share out after they use an ERS as a tool to improve their programs' quality.

- This will allow strategies they felt worked to be shared with their peers and encourage others to use it once they see the benefits.

Slide 15

Implications

- Students who start kindergarten behind, continues to stay and fall even further behind as they progress in their academic careers.

- Studies indicated that students who struggle in school are more likely to drop out.

- Every effort should be made to give students, regardless of their socio economic or cultural backgrounds, a strong academic foundation through the provision of quality ECE programs.

Slide 16

Summary

- The goal of this project, named the Start Ahead Campaign, is to provide the resources to help spread the word concerning the effects of ECE programs on academic success.

- The researcher sought to share her findings of the results from evaluating the relationship between centers' quality, as measured by their ECERS-R scores and the students' kindergarten readiness, as measured by their programs' KRR.

- The findings were analyzed with recommendations that shared what our role as a society entails in bringing about a social change in the area of ECE.

Slide 17

Slide 18

Thank You For Joining Us

White Paper Report information take from :

Doctoral Project Study Entitled:

The Effects of a Quality Early Childhood Education on Kindergarten Readiness Scores in a Florida School District

Researcher: Janis Modeste, M.Ed., Ed.D.

Appendix B: Data Use Agreement

Early Learning Coalition of Lake County
Innovative Services for Lake County's Children

April 15, 2015

Dear Ms. Modeste,

I am in receipt of your request for public records to include the results or scores of the Early Childhood Environmental Rating Scales that the Coalition conducted on Lake County Child Care Providers during the **FY2011-2012**. Please note that this records request falls under the auspice of the Florida Sunshine Law and the use of the data is at your discretion.

Specifically, the data being requested is as follows:

- Child Care Provider Name
- ERS Evaluation Date
- ERS Subscale Scores
- ERS Overall Score

Please note that there may be a fee associated with this data request. If you have any questions please feel free to contact me directly.

Sincerely,

Lesha Buchbinder
Executive Director

B. E. Thompson, Chair
Lesha Buchbinder, Executive Director
1300 Citizens Blvd. Suite 206, Leesburg, Florida 34748
PH (352) 435-0566 · (888) 352-5253 · WWW.ELCLC.ORG

In partnership with CSC and UW

LIVE UNITED
United Way

Appendix C: FLKRS Domains and Assessments

FLORIDA KINDERGARTEN READINESS SCREENER

The following table illustrates recommended scores for domains and total assessment for FLKRS:

Domain	Number of Indicators Rated	Not Yet	In Process	Proficient
Personal and Social Development	12	12-20	21-32	33-36
	11	11-18	19-29	30-33
	10	10-17	18-27	28-30
	9	9-15	16-24	25-27
Language and Literacy	10	10-17	18-27	28-30
	9	9-15	16-24	25-27
	8	8-13	14-21	22-24
Mathematical Thinking	12	12-20	21-32	33-36
	11	11-18	19-29	30-33
	10	10-17	18-27	28-30
	9	9-15	16-24	25-27
Scientific Thinking	4	4-6	7-10	11-12
	3	3-4	5-7	8-9
Physical Development, Health, and Safety	7	7-11	12-18	19-21
	6	6-10	11-16	17-18
	5	5-8	9-13	14-15
TOTAL	45	45-77	78-122	123-135
	44	44-76	77-120	121-132
	43	43-74	75-117	118-129
	42	42-73	74-115	116-126
	41	41-71	72-112	113-123
	40	40-69	70-109	110-120
	39	39-67	68-106	107-117
	38	38-66	67-104	105-114
	37	37-64	65-101	102-111
	36	36-62	63-98	99-108
	35	35-60	61-95	96-105
	34	34-59	60-93	94-102

Appendix E. From FLKRS Administration Manual, Just Read Florida! Copyright 2013

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APPENDIX D: 2011-2012 School Year ECERS-R and KRR Scores

ECE Center	ECERS-R	KRR
1	5.22	80.00
2	4.31	86.00
3	3.67	50.00
4	2.61	60.00
5	3.31	50.00
6	4.08	85.00
7	3.11	50.00
8	3.31	78.00
9	3.38	75.00
10	4.29	73.00
11	3.29	73.00
12	4.14	88.00
13	4.28	50.00
14	3.95	79.00
15	3.17	87.00
16	3.58	94.00
17	4.44	56.00
18	4.83	67.00
19	4.75	93.00
20	3.81	100.00

Appendix D

Continued

21	4.92	88.00
22	3.11	86.00
23	3.91	100.00
24	4.42	73.00
25	3.83	67.00
26	3.67	92.00
27	2.89	63.00
28	3.31	73.00
29	3.69	50.00
30	4.03	88.00
31	3.97	78.00
32	3.67	81.00
33	4.00	100.00
34	4.92	81.00
35	5.60	100.00
36	3.53	67.00
37	4.71	82.00
38	4.69	100.00
39	4.45	83.00
40	4.97	76.00

Appendix D

Continued

41	5.26	100.00
42	3.31	88.00
43	5.00	100.00
44	3.78	72.00
45	4.17	73.00
46	4.46	60.00
47	4.26	93.00
48	5.51	96.00
49	5.11	95.00
50	4.86	92.00
51	4.22	78.00
52	4.97	60.00
53	3.94	80.00
54	4.83	84.00
55	4.12	91.00