Perceptions of Central Alabama Elementary Principals on the Benefits of Pre-kindergarten Programs

by

Melissa Tier Williams

A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama August 1, 2015

Keywords: principals, pre-kindergarten, perceptions

Copyright 2015 by Melissa Tier Williams

Approved by

Maria Witte, Chair, Professor of Educational Foundations, Leadership and Technology James Wright, Co-Chair, Retired Associate Dean of Education (Auburn University Montgomery) Lynne Patrick, Associate Clinical Professor of Educational Foundations, Leadership and Technology

Fran Kochan, Professor Emerita of Educational Foundations, Leadership and Technology

Abstract

The purpose of this research study was to examine principals' perceptions on the benefits of high quality Pre-K programs in Central Alabama elementary schools and their impact on student achievement for at-risk children. Data were collected from five selected public school systems in Alabama which are located in the central part of the state. Principals for 54 elementary schools were invited to participate in the study by completing a 20 item four-point Likert type scale questionnaire that measured their perceptions. The questionnaire also included a section on eight demographic variables that included gender, race, years of experience, education level, school classification, school enrollment, free/reduced rate, and Title I/Non-Title I. Forty-three principals responded to the questionnaire, yielding a total of 80%.

The investigator sought to answer the following questions: (1) What are Alabama elementary principals' perception about research linking children in high-quality Pre-K programs and later school achievement? (2) What are Alabama principals' perceptions about research-based high quality standards and curriculum in Pre-K programs? (3) To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-K programs in Alabama? (4) Is there a statistically significant difference between principals' perceptions of the benefits of Pre-K programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience?

Findings revealed that the principals perceived themselves as knowledgeable of early childhood education curriculum. Additionally, the principals believed the level of importance in

early education programs should be placed on identification of letters and numbers, learning to write one's name, expanding vocabulary, and learning social and emotional skills. Findings of the study also reflected statistically significant relationships (p < .05, **p < .01) in six of the eight demographic variables of race, years of experience, education level, school classification, total school enrollment, and free/reduced lunch.

The investigator concluded that there is a need for further research in many areas regarding how administrators view the benefits of early childhood education programs and its impact for at-risk children.

Acknowledgments

The completion of this dissertation has truly been a journey. One that I oftentimes felt would not come to a successful end, but I wouldn't give up because of my faith, and perseverance. First, I must thank God because He made it possible for me to be at this point in my life. I am grateful for all the wonderful people who agreed to serve on my committee: Dr. Maria Witte, Dr. James Wright, Dr. Lynne Patrick, and Dr. Fran Kochan. It was through their guidance and endless support that allowed me to complete this dissertation. I would like to thank my University Reader, Dr. Theresa McCormick. Your knowledge in early childhood education was invaluable.

I had the unique opportunity to study under the direction of my Chair, Dr. Maria Witte, and Co-Chair, Dr. James Wright who provided encouragement and great advice throughout the research and preparation for the final paper. Dr. Witte answered many questions and gave me the support to continue when it didn't seem possible. Dr. Wright has become a great mentor over the past five years. Knowing you were there as a great support to lean on eased the stress. I also want to express sincere thanks to Dr. Henry Findlay for providing assistance in helping me navigate through the statistical analyses of data and being my outside reader who provided valuable input.

A special thanks to the superintendents and elementary principals of the five public school systems for their cooperation and sincere efforts to make this study a meaningful

representation of their perceptions. Thank you to my friends, co-workers, and many supporters that wouldn't allow me to give up.

I am so honored to be a part of a family that is by far the most loving and supporting people I have ever met. I would like to thank my father Wilbert "Pa Pa" Williams, for teaching me so many valuable life lessons that have helped me become the independent woman I am today. To my great nieces Aryn and Alana, great nephew Blake, thank you for allowing "Tee Tee Tier" to finish writing so I can spend more time with you and when you come to my house there won't be paper everywhere. Thank you to my nieces Ashley and Morgan, and my nephews Sean, Cameron, EJ and Antonio. Although Antonio is my protégé, he inspired and encouraged me to complete my dissertation after he completed his. I love all of you dearly. Thank you to my sisters Val and Monica, and to my brother Gerald for being the best siblings anyone could ask for. I love you guys so much and I wouldn't trade you for the world.

Finally, I would like to thank my awesome son Christian, who always reminded me that I had to keep writing. He would always ask, "When are you going to finish your dissertation"? You are the most important person in my life and I love you more than words could ever express. I'm blessed to have you in my life and to be your mother.

Dedication

I dedicate this dissertation to the memory of my late mother, Bertha "Nana" Williams. Every day I am comforted by thoughts and memories of such a beautiful person and the influence she had on my life as a woman and as a mother. She passed just as I began this journey four years ago. I would often talk to her about how I couldn't get started and she would always say to me "honey it will come". I would like to tell her that it has finally come and I wish she were here to share it with me because it's her guidance that led me to pursue my doctoral degree. She always wanted the best for her family and she made so many sacrifices to make it possible for us to have the opportunities to be the best we could be. I have not met a woman as strong as my mother and when faced with life's challenges, I feel her presence and I know that she is everywhere I am. Although I feel she was taken too soon, I thank God for the season He shared His angel with me. Nana I did it! I miss you and I love you!

Table of Contents

Abstract	ii
Acknowledgments	iv
Dedication	vi
List of Tables	x
List of Figures	xi
List of Charts	xii
List of Abbreviations	xiii
Chapter 1. Introduction	1
Historical Background	2
Statement of the Research Problem	4
Purpose of the Study	5
Methodology	6
Research Questions	6
Significance of the Study	7
Definition of Key Terms	8
Limitations and Delimitations of the Study	10
Limitations	10
Delimitations	11
Assumptions	11

Chapter Summary	12
Organization of Dissertation	12
Chapter 2. Review of Literature	13
Theoretical Framework	13
Effects of Pre-Kindergarten for At-Risk Children	15
The Achievement Gap	19
Achievement Gap and Cultural/Environmental Factors	24
Efforts toward Closing the Achievement Gap	27
High-Quality Pre-K Programs	33
School Readiness	40
Alabama's First Class Pre-K Program	42
Summary	48
Chapter 3. Methods and Procedures	50
Introduction	50
The Researcher's Role	51
Description of the Setting	52
The Participants	52
Description of the Testing Instrument	53
Reliability and Validity	54
Research Design and Data Collection Procedure	55
Data Analysis	56
Summary	56

Chapter 4. Results	58
Introduction	58
Demographic Characteristics	59
Results	62
Research Question One	65
Research Question Two	66
Research Question Three	67
Research Question Four	69
Summary	70
Chapter 5. Summary, Conclusions, Implications, and Recommendations	71
Introduction	71
Summary	72
Conclusion	74
Implications	75
Recommendations for Further Research	77
References	79
Appendices	95
Appendix A School Survey	96
Appendix B Superintendent Permission Letter	99
Appendix C Electronic Letter to Elementary Principals	101
Appendix D Information Letter	103
Appendix E District's Approval Letter to Conduct Study	107

List of Tables

Table 1	Graduation Rates by Race/Ethnicity (2010–2011 School Year)	21
Table 2	Descriptive Statistics for the Respondents' Demographics	60
Table 3	Category Survey Overall Mean Scores	63
Table 4	Principals' Perceptions on the Benefits of High Quality Pre-K Programs	65
Table 5	Principals' Perceptions about Research Linking Children in High-Quality	
	Pre-K Programs and Later School Achievement	66
Table 6	Principals' Perceptions about Research-Based High Quality Standards and	
	Curriculum in Pre-K Programs	67
Table 7	Principals' Beliefs that Financial, Facility, or Human Resources Impact	
	Pre-K Programs	68
Table 8	Pearson Correlations for Principals' Perceptions of the Benefits of	
	Pre-K Programs When Grouped According to Gender, Ethnicity,	
	Qualifications, Number of Certifications, and Years of Experience	69

List of Figures

Figure 1	Percentage of Fourth Graders Proficient in Reading	28
Figure 2	Pre-K Impact for Poverty Students	47
Figure 3	Percentage of 4-year-olds in Public Pre-K, by state	48

List of Charts

Chart 1	NIEER Quality in Alabama's First Class Pre-K Program	38
Chart 2	Alignment of Standards	46

List of Abbreviations

DCA Department of Children's Affairs

ECLS Early Child Longitudinal Survey

GSGS Grow Start Grow Smart Initiative

NAEYC National Association for the Education of Young Children

NCLB No Child Left Behind

NEGP National Education Goals Panel

NIEER National Institute for Early Education Research

OCA Office of Children's Affairs

OSR Office of School Readiness

PK Pre-Kindergarten

UPK Universal Pre-K

CHAPTER 1. INTRODUCTION

Publicly funded pre-kindergarten (PK) programs have shown measurable evidence in helping children's academic progress in the early grades and beyond. Indeed, publicly funded pre-kindergarten programs have been adopted by states in order to ensure school readiness, especially for children at risk for school failure due to poverty (Barnett, Lamy & Jung, 2005). It is reasonable to expect that offering high-quality PK programs to children at risk of school failure would result in a greater proportion of the population being "ready to learn" at the start of school (NEGP, 1998). Federal and state governments followed this line of thinking and invested in PK programs during the past decade as a means to increase school readiness skills of children entering kindergarten (K), particularly those children likely to struggle in meeting the academic and social demands of elementary school (Bowman, Donovan, & Burns, 2000). At the present time, almost three-fourths of the states now fund such programs that serve over 25% of 4-year olds in this country (Barnett, Hustedt, Robin, & Schulman, 2005).

The purpose of PK programs is to expose four-year-old children to pre-academic material and school-like activities with the intention of increasing school-related achievement skills and social-behavioral competence when children enter kindergarten (Barnett et al., 2005; Clifford et al., 2005). Implementing Pre-K programs is one of the major initiatives states have undertaken in recent years to improve educational outcomes for economically disadvantaged students (Barnett et al., 2007). Participation in formal pre-kindergarten does appear to improve some aspects of school readiness at kindergarten entry (Barnett et al., 2007b; Gormley et al., 2005).

Although historically education and care before age five was considered a private rather than public responsibility in the United States, early childhood education has received growing public attention in recent years (e.g., Barnett, 2004; Heckman & Masterov, 2004; Rolnick & Grunewald, 2003; Shonkoff & Phillips, 2000). Much of this new attention is derived from research on the long-term economic benefits of child development programs for young children from disadvantaged families (e.g., Barnett & Masse, 2007; Belfield, Nores, Barnett, & Scweinhart, 2006; Masse & Barnett, 2002; Reynolds, Temple, Robertson, & Mann, 2002; Temple & Reynolds, 2007). A child's readiness for school can be seen as a measurable set of pre-academic (including calculating, reading, drawing and writing) and behavioral skills that have been proven to predict later academic success (Augustyniak, Cook-Cottone & Calabrese, 2004; Scott-Little et al., 2006; Vanderheyden, Witt Naquin, & Noell, 2001). High-quality prekindergarten has proven effective in alleviating grade repetition, dropping out, and special education placement (Belfield et al. 2006; Reynolds et al. 2002). The belief that their "readiness" is critical to later school success and our nation's progress has placed early education in the middle of national and scholarly debate, gaining the attention of early education advocates, organizations, and the public (DellaMattera, 2010).

Historical Background

During the past two decades, public interest and investment in quality early childhood education programs have flourished. In 1993, approximately \$1 billion in federal funding was authorized by legislation for family support and preservation programs (Gomby, Larner, Stevenson, Lewit, & Behrman, 1995). Millions of families and children each year are assisted by these programs and other federally and state-funded programs. In fact, organizations such as the National Governors' Association, the National Association of State Boards of Education

(NASBE), and the National Commission on Children have asked for additional investment in early childhood programs because researchers have found that early childhood programs provide long-term cognitive and social benefits to children (Gomby, et al., 1995). Moreover, members of the National Governors' Association identified preschool education as a key investment by state governments in education (Mitchell, Seligson, & Marx, 1989).

Historically, young children in America have always been provided opportunities to participate in educational programs. During the colonial era, 1620–1750, families sent their very young children to schools if schools were available. The Puritans believed children should learn to read the Bible as soon as possible; therefore children were taught to read when they were three or four years of age (Spodek, 1988). When district schools were established for older children, many parents sent their children to schools along with their older children (McGill-Franzen, 1993).

It wasn't until the nineteenth century that changes occurred regarding differences in how younger and older children were educated. The development of teaching methods for children in their early years was offered through public and private schools. Public schools were established to provide basic skills instruction in reading, writing, and arithmetic to young children in primary schools, also referred to as common schools. Young children were often enrolled in primary schools, learned to read at age three or four, and began Latin instruction at age five or six.

Interestingly, in 1826, 5% of all children enrolled in public schools were below age four years of age (Spodek & Saracho, 1994). Children who typically went to these schools were from more affluent families.

Perhaps the greatest impact on early childhood education is the Goals 2000: Educate America Act. According to these goals, referred to as America 2000, the first goal was that all

children in America will start school ready to learn. Although interest in school readiness was present in the past, the issue has become an important educational topic of much discussion and debate over the last several years (Gredler, 1992). Much of the recent interest in school readiness has been based on an understanding of current circumstances of children's lives (Kagan, 1992; Meisels, 1992). Factors such as poverty, health issues, prenatal care, and access to quality pre-kindergarten programs are related to children's readiness for school (Southern Regional Education Board [SREB], 1992), with poverty and economic instability being two of the most powerful predictors of children's lack of success in school (National Governor's Association, 1992).

Statement of the Research Problem

While a substantial body of research finds that high-quality preschool education can substantively improve the learning and development of young children, many states still provide no state-funded preschool education programs. The Office of School Readiness (OSR) was created by the Alabama Legislation during the 2000 Legislative session to establish collaborations at the state and local levels to provide four-year-old children with effective early childhood experiences and prepare them for school. Although Alabama's Pre-K program is among the top five in the nation to meet all 10 of the National Institute for Early Education Research (NIEER) benchmarks for quality standards, few children have access to this high quality program. OSR is funded out of the state's Education Trust Fund which has been affected by years of multiple proration. Funding Pre-K is one of the challenges states face even though research has shown that a child needs to read on grade level by the third grade to be successful, and more research is showing that they need to be reading on grade level by first grade. State

cuts to preschool funding can greatly impact increased enrollment, decrease total spending by the states, and decline per-child spending.

However, with Alabama getting high marks for quality standards over the past six years, one can assume the high quality Pre-K programs are effective in preparing children who are more likely to graduate high school and go on to higher education. Also, with the increased interest in universal Pre-K programs, educational administrators can view that teaching and learning practices coordinated between Pre-K programs and elementary grades can help maximize the gains young children obtain in the early years. Research suggests that participation in high quality pre-kindergarten can improve certain aspects of school readiness at kindergarten entry. However, there is little currently known regarding the benefits of high quality pre-kindergarten programs and is no consensus among public school administrators especially in Central Alabama regarding the effectiveness of Pre-K programs on students' academic achievement. Therefore, there is legitimate need to design a study to determine the impact of Pre-K programs in Central Alabama elementary schools.

Purpose of the Study

The purpose of this study was to examine principals' perceptions on the benefits of high quality Pre-K programs in Central Alabama elementary schools and their impact on student achievement for at-risk children. Because the National Institute for Early Education Research is well established as a leader in early education research and practice, their established quality standards for high quality Pre-K programs were used in this study. The study determined if principals viewed the benefits of high quality Pre-K programs as necessary for school success and lifelong learning. For the purpose of this study, elementary school principals were utilized because they are the instructional leaders and oftentimes supervise Pre-K programs on the

school's campus. The perceptions of school level administrators are also important because they play a pivotal role in advocating the need for universal Pre-K programs in ways that will support increased funding by states, and in turn, the quality of early educational opportunities offered to all students.

Methodology

This study involved 54 elementary school principals from five school districts located in Central Alabama. All five counties have at least one Pre-K program in their school district. The data collected used quantitative methodology, a questionnaire and survey. According to Creswell (2003), quantitative research is a type of educational research in which the researcher decides what to study; asks specific, narrow questions; collects quantifiable data from participants; analyzes these numbers using statistics; and conducts the inquiry in an unbiased, objective manner. Also, a questionnaire design provides quantitative or numeric description of trends, attitudes, or opinions of participants in a study.

The questionnaire was used to determine principals' perceptions of Pre-K programs, as well as determine if Pre-K programs were viewed as an essential part of school readiness. The questionnaire (see Appendix A) was designed using a Likert-type scale to provide an understanding of overall effectiveness. The researcher was granted permission to use a slightly modified survey from the instrument used by Florendo (2012). The Statistical Package for Social Sciences (SPSS) was used to analyze data. The survey was distributed to 54 Central Alabama elementary principals via mail.

Research Questions

The research for this study was framed around the following questions:

- 1. What are Alabama elementary principals' perception about research linking children in high-quality Pre-K programs and later school achievement?
- 2. What are Alabama principals' perceptions about research-based high quality standards and curriculum in Pre-K programs?
- 3. To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-K programs in Alabama?
- 4. Is there a statistically significant difference between principals' perceptions of the benefits of Pre-K programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience?

Significance of the Study

School readiness has become an important goal of support for closing the achievement gap for early learners. However, there is little currently known regarding the benefits of high quality pre-kindergarten programs. There is a lack of research on the benefits of high quality pre-kindergarten programs within elementary schools. If students are to be successful at academic achievement, it is important for them to enter kindergarten ready to learn. If students are prepared at an early age, the benefits of high quality pre-kindergarten programs can have a positive impact on high student achievement. Therefore, the focus of this study aimed to gain an understanding of what Central Alabama elementary principals know and understand about this information. Presently, it is not clear what they know and the extent of their knowledge about Pre-K research. With more than 400 current public schools in Alabama associated with Pre-K programs, it is important that school principals understand the research and programming criteria in order to gain the positive results from Pre-K programs, for the children, schools, and communities they serve. The findings of the study can be beneficial in determining the benefits

of high quality pre-kindergarten programs within the school districts participating in this study. Additionally, results from the data can be used by local education agencies, federal and state offices of school readiness programs, and national educational agencies to make decisions regarding public funding for pre-kindergarten programs within elementary schools. These decisions can increase the number of pre-kindergarten programs that currently exists.

Gathering common group data can assist in advocating and educating for additional resources or reduce current limitations on programming. The significance of this study is supported by a lack of current information available to gauge current perceptions of Pre-K by school principals.

Definition of Key Terms

For the purpose of this study, the following definitions are given:

Early Head Start – Identical to Head Start except typically serving infants through 36 months old.

Head Start – National federally financed programs that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children ages 0–5 years that come from vulnerable families. Typically the program is referred to as serving 3–5 year olds.

High-quality early childhood care and education programs – Pre-K programs that demonstrate specific criteria which has been proven to produce short- and long-term positive effects on children's cognitive and social development (NAEYC, n.d.).

National Institute for Early Education Research (NIEER) – reports state rankings on enrollment, spending, and quality standards.

No Child Left Behind – A 2002 landmark law that mandated education reform geared towards improving student achievement. Its primary purpose is to ensure that all children have a fair, equal, and significant opportunity to receive a high quality education.

Office of School Readiness (OSR) – was created by Alabama Legislation in the 2000 Legislative session to establish collaborations at the state and local levels that will provide Alabama's four-year-old children with effective early childhood experiences and prepare them for school. The goal of the office is to achieve voluntary pre-kindergarten in Alabama by enhancing existing and establishing new pre-kindergarten programs.

Pre-kindergarten (also called Pre-K or PK) – is the first classroom-based learning environment that a child customarily attends in the United States. It begins between the ages of 3–5 depending on the length of the program. It was created to prepare students for a more didactic and academically intensive kindergarten and is the traditional "first" class that school children participate in. Pre-kindergarten is not required. On the other hand, it acts as a way to prepare children (especially those of a disadvantaged population) to better succeed in a kindergarten (often compulsory in many U.S. states). Pre-kindergarten was also known as nursery school, but the term was phased out during the 1990s. Project Head Start was founded in 1965, as the first federally-funded pre-kindergarten program. The majority of pre-kindergarten programs have been operated by private organizations for the purpose of socialization and educational benefits since 1922. Only over the past few decades have pre-kindergarten programs become necessary for mothers to enter the workforce (Andrews & Slate, 2002).

School Readiness – a condition whereby children enter school with the necessary components to promote student success in kindergarten and beyond.

State-funded Pre-K – centers serving young children from lower-income families, except in two states with universal Pre-K programs.

Title I – Schools qualify as a Title I school when at least 40 percent of the children in the school attendance area are from low-income families or at least 40 percent of the student enrollment are from low-income families. Generally, looking at the number of students who qualify for free or reduced-price lunch programs make this determination. It has become a standardized measurement that most schools use their free or reduced-price lunch enrollment to determine the economic demographics of their student body.

Limitations and Delimitations of the Study

Limitations and delimitations are discussed to analyze possible threats to the study's validity and to acknowledge existing flaws to the research design.

Limitations

Limitations are potential weaknesses or problems of the study identified by the researcher and cannot be controlled. The researcher acknowledges these limitations in this study:

- 1. This study was limited to assessing the perceptions of elementary school principals in four districts in Central Alabama (small population).
- 2. This study may be influenced by the extent that the instrument used measured the perceptions using a Likert-type scale instead of verbal responses.
- Some participants may have responded to the questions based on what they believed
 was the appropriate or desired response and not responded based on their own honest
 perceptions.
- 4. This study had the potential to be limited because all survey items are subject to the interpretation of the reader.

5. One school district chose not to participate.

Delimitations

Delimitations are boundaries that researchers impose prior to the inception of the study to narrow the scope of the study. The researcher acknowledges delimitations to the study:

- 1. Only Central Alabama elementary public school principals were used for the sample population, thus eliminating private and other school districts within and outside the state who may share different perceptions about Pre-K.
- 2. A survey mailed to participants does not guarantee that the principals invited to participate in the study received them.
- 3. This study took place during a time when Pre-K was receiving an enormous amount of attention and support from local and national leaders to enhance programming and services. Duplicating this study five years from now may produce different results.

Assumptions

- 1. An assumption to this study is that all participants in this study will respond honestly to the questions.
- 2. An assumption to this study is that the instrument used to measure the perceptions of elementary principals is valid.
- 3. An assumption to this study is that all participants in this study have perceptions regarding the benefits of pre-kindergarten programs.
- 4. Another assumption to this study is that there will be no significance differences and/or relationships between principals' perceptions and gender.

Chapter Summary

There is an urgent cry to close the achievement gap in today's society. Although resources are limited, it is critical that policy makers choose wisely among the available tools and strategies to support educational achievement for all students. It is widely accepted that the future of our nation's success and security begins with the well-being of all students. School leaders are essential: "The administrative role is so important that the National Association of Elementary School Principals has declared Pre-K to be a significant responsibility for elementary principals" (Kostelink & Grady, 2009, pg. 24).

The goal of this study was to have a significant impact on the effectiveness of high quality Pre-K programs, especially for children most at-risk, and to understand what administrators know about Pre-K.

Organization of Dissertation

This study is organized into five chapters. Chapter I provides an overview of the study, statement of the problem, purpose of the research, research questions, the significance of the study, limitations/delimitations, assumptions, and definition of the terms. Chapter II provides a discussion of the relevant literature regarding the characteristics of high quality Pre-K programs, and the benefits of school readiness on student achievement. Chapter III describes the methodology used in the study. Chapter IV gives a presentation of the findings of the study. Chapter V concludes with a summary of the findings, conclusions drawn, discussions, implications, and recommendations for areas of further research.

CHAPTER 2. REVIEW OF LITERATURE

Educators, parents, children's advocates, and policymakers have discussed the benefits of Pre-K for decades. In recent years, there has been an overwhelming interest in early childhood education, particularly pre-kindergarten programs. As pre-kindergarten programs flourish and become even more prevalent in today's educational world, more studies and research will be done on the effectiveness and the significance of formal early childhood education. Coley (2002) found that the educational gap that exists prior to kindergarten may impede students' success in kindergarten; thus, this gap must be addressed prior to kindergarten. Pre-kindergarten has now become the gentle way of introducing children to the rigors of real school. The transition to formal schooling can be a socially, emotionally and academically challenging event for students and families (Wildenger, McIntyre, Fiese, & Eckert, 2008).

Theoretical Framework

In order to develop solid, effective prekindergarten programs as well as plans to promote and build school readiness skills in young children, it is important to understand the theoretical background of child development and student needs. John Dewey, Maria Montessori, and Jean Piaget are three specific theorists who contributed information to this field and set the foundation for Universal pre-kindergarten (UPK). According to Mooney (2000), "These early theorists all agreed that children learn from doing and that education should involve real-life material and experiences and should encourage experimentation and independent thinking. These ideas, now quite common, were considered revolutionary in Dewey's day" (p. 4).

John Dewey is best known for his Theory of Progressive Education. As a progressive education theorist he shared with Vygotsky, Montessori, and Piaget the central ideas of that movement: education should be child centered; education must be both active and interactive; and education must involve the social world of the child and the community (Mooney, 2000, p. 4). John Dewey's theory provides substance for UPK advocates. His belief is that "children learn best when they interact with other people, working both alone and cooperatively with peers and adults" (Mooney, 2000, p.5).

Jean Piaget is known for the Theory of Cognitive Development. According to Piaget, children are born with a very basic mental structure that is genetically inherited and evolved and on which subsequent learning and knowledge is based. Piaget showed that young children think in strikingly different ways than adults (McCleod, 2009). The goal of Piaget's theory was to explain the mechanisms and processes by which the infant and then the child develop into an individual who can reason and think. To Piaget, cognitive development was a progressive reorganization of mental processes children construct an understanding of in their environment then build what they discover onto what they already know (McCleod, 2009). "While others wanted to know *what* children know or *when* they know it, Piaget asked *how* children arrive at what they know" (Mooney, 2000, p. 59). While most theorists believed a child's learning was either intrinsic (coming from within the child) or extrinsic (coming from the environment or taught by others), Piaget believed a child's interactions with his or her environment create learning experiences; therefore, a child is utilizing intrinsic and extrinsic modalities to learn (Boden, 1979; Mooney, 2000).

Piaget's theory included the belief that children learn best when they are performing the work themselves. He believed that by doing, children create their own understanding of the

environment around them. Piaget discussed how the opportunity for a child to construct his or her own learning environment is far greater than any instruction an adult could offer. He also believed that children only learn when their curiosity is not fulfilled. Through his research and work, Piaget created four stages to describe cognitive development in children. The four stages include sensorimotor, preoperational, concrete operational, and formal operational. Piaget's work on the developmental stages of the child has been a primary influence on American preschool programs over the past 40 years (Boden, 1979; Mooney, 2000).

Effects of Pre-Kindergarten for At-Risk Children

There is increasing recognition of the importance of the early childhood period as a critical time for promoting children's learning in order to assure readiness for success in school (Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002; DiPietro, 2000; National Research Council, 2001). To accomplish this goal a variety of service delivery models are provided for early childhood programs. Public school pre-kindergarten and federally-funded Head Start programs are primarily for children from lower income backgrounds. Childcare programs serve children from all income levels. States are faced with a number of challenges as they strive to develop early childhood education systems that meet the social and academic needs of children, particularly those from low income backgrounds, using current funding streams. As children from low income backgrounds are known to have less exposure to rich vocabulary, fewer experiences with books, and less parental responsiveness to children's interests (Evans, 2004; Hart & Risley, 1995; Landry, Smith, Swank, Assel & Vellet, 2001), there is a growing belief in the United States that high quality pre-kindergarten programs should be utilized as a way to ensure that children from low socioeconomic (SES) backgrounds are prepared to start school in kindergarten.

There are more than 3 million children that enroll in public kindergarten programs each year at different levels. Some differences are normal and to be expected, but unfortunately socioeconomic factors play a major role in the differences in each child's strengths, weaknesses, skills, and needs. In order for all children to have a strong foundation to be successful students, any disparities have to be reduced at an early age. High-quality pre-kindergarten has proven effective in alleviating grade repetition, dropping out, and special education placement (Belfield, et al. 2006; Reynolds et al. 2002).

Economists Lynn Karoly and James Bigelow (2005) have determined that investing in Pre-K for all will pay future dividends, even assuming less impact on middle-income children. Publicly funded pre-kindergarten programs are adopted by most states to promote school readiness, especially for children at risk for academic problems due to poverty. Offering high quality pre-kindergarten programs to children at risk of school failure would yield a larger number of students prepared to learn when they enter kindergarten. It is believed that investing in pre-kindergarten programs will increase school readiness skills of children at the start of school, especially those children that are likely to struggle academically and socially in meeting the demands of elementary school. Several states fund such programs that serve four-year-olds in this country, and many states have proposed expansions. Unfortunately, a survey conducted by the National Center for Early Development and Learning indicated that 46% of kindergarten teachers reported that more than half of the children in their classes were not ready for school, that is, they lacked the self-regulatory skills and emotions and social competence to function productively and to learn in kindergarten (West, Denton, & Keaney, 2001).

The Early Child Longitudinal Survey (ECLS), a nationally representative sample of over 22,000 kindergarten children, suggests that exposure to multiple poverty-related risks increases

the odds that children will demonstrate less social competence and emotional self-regulation and more behavior problems than more economically advantaged children (West et al., 2001).

Although socioeconomic disadvantages solely do not lead to social and/or emotional problems, research indicates there is some risk children living in poverty experience negative social and emotional outcomes. Low income has also been deemed as a significant risk for conduct/ behavior problems and academic underachievement at an early age. Without effective high quality pre-kindergarten programs, the early-identified gaps in social competence and socioeconomically disadvantaged children will widen as children progress in school.

Previous and current studies continue to show the many benefits of providing quality prekindergarten programs, with substantial benefits for at-risk children. Increasing numbers of states are offering state-supported pre-kindergarten programs for four-year-olds, and there is momentum nationally for universal access to pre-kindergarten. Research findings clearly suggest that high-quality pre-kindergarten experiences can benefit children, particularly children considered to be at risk of school failure (Lamy, Barnett, & Jung, 2005). It is believed that early intervention can have a major positive impact on altering the development course of high-risk children. Studies have shown the rates of grade repetition, special education placement, teen pregnancy, drug use and smoking were all significantly lower for low-income children who attended high quality pre-kindergarten programs. By fifth grade, poor children are as much as two times more likely to lack proficiency in math and reading skills than children who are not poor (U.S. Department of Education, National Center for Education Statistics, 2007). High quality preschools may act as an intervention to help promote the academic achievement of lowincome children through middle school. Low family income also has consequences for children's achievement, in part because poverty places constraints on families' investments in

material resources (e.g., books) necessary for cognitive and language development (Becker & Tomes, 1986; Dearing & Taylor, 2007; Votruba-Drzal, 2003; Yeung, Liner, & Brooke-Gunn, 2002). When economic pressures are associated with poverty, it is likely that parent's psychological wellness is impaired, and there is a tendency for decreased positive parenting skills, while negative parenting behaviors increased. The National Institute for Early Education Research (NIEER) examined the short and long-term effects of preschool education on young children's learning and development and found,

the strongest evidence suggests that economically disadvantaged children reap long-term benefits from preschool. However, children from all other socioeconomic backgrounds have been found to benefit as well.... Increasing public investment in effective preschool education programs for all children can produce substantial educational, social, and economic benefits. (Barnett, 2008, pp. 1–2)

Studies over the past 40 years regarding math and reading achievement, improved access to learning materials and learning stimulation may be particularly crucial for low-income children because deprivation in this area is the primary mechanism by which low income leads to underachievement (e.g., Yeung et al, 2002). By improving their learning environments, higher quality pre-kindergarten programs may provide an advantage for low-income children, promoting early cognitive skills and knowledge to increase their chances for later success in math and reading. When children enter kindergarten they are expected to have the necessary prerequisite skills for early literacy, math and social competence to conform to school procedures. Some children enter kindergarten with the skills ready to learn and others do not.

When the report, A Nation at Risk was released in 1983, attention was given to the poor scores in mathematics and science achievement of American students, particularly those who

were economically disadvantaged (Walberg, 2010). Reform efforts in education were developed to confront the problem. The 1983 report revealed that even though 13% of all 17-year-olds in the United States would be considered functionally illiterate, minority youth account for 40% of the illiterate (U.S. Department of Education, 1983). In an updated report, A Nation Still at Risk (1998), revealed that only slight progress had been made, including little progress in the disparities between groups of students.

The Achievement Gap

Historically in the United States, universal access to elementary and secondary schooling eventually became a reality. Universality of access has not, however, resulted in equal educational achievement, and schools still differ from one another in the quality of the education they provide. The current policy debate in the field of education focuses largely on what is referred to as "the achievement gap." The reference is to the well-documented, persistent association of educational achievement to socioeconomic status (SES) and race/ethnicity. As a group, that is to say, on average, students of higher SES fare better on indices of educational achievement than do those from lower SES families. African American, Hispanic, and other non-White groups who are over-represented in the lower socioeconomic strata tend, as a group, to lag behind their White counterparts in school achievement (Laosa, 2005). It is well known that children who experience socioeconomic disadvantages in their home are more likely to enter in the formal school system with limitations in their readiness to learn and to follow a trajectory of poor academic achievement (Duncan et al., 2007; Hertzman & Power, 2006). Recent studies have suggested that the effects of attending preschool differ according to race. The achievement gap between White children and Black children is a persistent concern. It is believed that racial gaps in cognitive ability appear prior to children entering elementary school. The National

Center for Education Statistics (NCES) in 2009 and 2010 reported that an average of more than 20 test-score points on the NAEP math and reading assessments for 4th and 8th grades still exists between Whites and African Americans and Hispanic students accounted for a difference of approximately two grade levels (cited in Education Week, 2011).

In July, Education Week (2011) updated an "Achievement Gap" report originally published in 2004. The updated graduation data from the Education Research Center's for annual Diploma Count Report sited:

While 82.7% of Asian students and 78.4% of White students in the class of 2008 graduated on time, that was the case for only 57.6% of Hispanic, 57% of Black, and 53.9% of American Indian students... 68% of male students graduated on time in 2008, compared with only about one half of male students from minority backgrounds. (Education Week, 2011, p. 2)

Table 1 displays the graduation rates in Alabama for the school year 2010–2011, defining the disparities in racial and ethnic groups of students (National Journal.com, The Next America-Education 2012/Education).

Table 1

Graduation Rates by Race/Ethnicity (2010–2011 School Year)

Students	Graduation Rate (%)
Alabama Total	72
Ethnicity	
American Indian/Alaska Native	80
Asian/Pacific Islander	77
Black or African American	63
Hispanic/Latino	66
White (not Hispanic)	78

In addition to the graduation rate, disparities are also found in college bound students in race and ethnicity. Sixty-two percent of qualified White high school graduates enter college, while only 12% of similarly qualified Hispanic graduates and 14% of Black high school graduates enter college (U.S. Department of Education, National Center for Education Statistics, 2010, Table 235).

A growing body of research provides strong evidence that preschool programs can have positive and long-lasting effects on a host of academic and social outcomes (Belfield, Nores, Barnett & Schweinhart, 2006; Garces, Thomas & Currie, 2000; Ludwig & Miller, 2007; Reynolds, Temple, Robertson & Mann, 2001). Results from studies imply that attending prekindergarten might be a powerful instrument for reducing racial achievement gaps.

Children enter public kindergarten programs with different strengths, weaknesses, skills and abilities. Some of these differences are normal, and to be expected due to variations in development. Unfortunately, socioeconomic factors also contribute considerably to a school-

readiness discord. There is already a substantial achievement gap between low-income children and their wealthier peers when they enter kindergarten. The gaps typically occur in the areas of cognitive development, social/emotional development, and health conditions. Low-income children are more likely than more affluent children to attend lower-quality schools, causing more difficulty in closing the gap later through school only. Increased attention must be given to early childhood programs to support and assess school readiness to ensure a more level start when they enter school.

Several factors have contributed to growing state and national concerns in promoting early learning and cognitive development as one way of preventing school readiness gaps. The public has a better understanding of how to advance young children's learning through documented research on the importance of early learning experiences on brain development. Early childhood initiatives have been started to encourage high-quality programs through quality rating systems. The federal government supported school readiness in 2002 when the Bush administration established Good Start, Grow Start, which recommended states developed voluntary early literacy and math guidelines be aligned with their K-12 standards for young children between the ages of three and five. The Obama administration has maintained a focus on early childhood by including \$5 billion of new funding for Child Care, Head Start, Early Head Start, and programs for young children with special needs in the American Recovery and Reinvestment Act (Daily, Burkhauser & Hall, 2011). Many states have created longitudinal data systems by linking data in education from birth through K-12 as a primary focus. Promise Neighborhoods Initiative, Race to the Top, and a new home visiting grant program are recent federal opportunities to support states in tracking signs of children's school readiness.

When there isn't a solid foundation of early learning, many children enter school with a deficit, and they spend years trying to catch up. About 60% of low-income children and more than a third of middle-income children do not know the alphabet (Coley, 2002). These significant gaps in children's development and ability often occur before age five; therefore, any disparities must be reduced during the early years. Many studies have found that children from low-income families gain more cognitively from preschool than do their more advantaged peers, though gains for children from middle-income backgrounds can still be substantial (Burger, 2010; Gormley et al., 2005; Melhuish et al., 2008). Public funding of early childhood education is reportedly reducing ethnic and racial gaps in preschool attendance. It is possible that further increases in enrollment and improvements in quality would decrease readiness gaps.

Policies that target low-income families, who are usually Black, are expanding high quality preschool programs for all three and four year old children in an attempt to close the Black-White school readiness gap. The majority of children entering kindergarten today have attended some type of preschool. Although young children's early academic skills are developed through various activities, the type of quality they receive is different. The widely varied experiences may affect racial and ethnic gaps in school readiness and widen the gap. The ethnic gaps might widen more if racial and ethnic minority groups are not enrolled in beneficial early education programs, attend only half time, or attend lower quality programs. Preschool experiences might narrow racial and ethnic gaps if children from minority groups are enrolled and attend higher-quality programs full days.

Racial and ethnic disparities exist both in enrollment and the quality of early childhood education. Black children are more likely than White children to be enrolled in a lower-quality preschool program. They are also more likely to attend Head Start, which may mean that these

programs are doing what they must to help alleviate early achievement gaps. It is not realistic to expect a preschool program to protect a child against the risk of low academic achievement, but it should be expected that such programs help narrow the achievement gap between racial and ethnic differences in young children's academic skills to ensure they enter school on a more even foundation.

Achievement Gap and Cultural/Environmental Factors

Children of poverty suffer from environmental factors that influence low-quality child care and positive early learning opportunities: poorer health and school readiness traits; they are more likely to live in unsafe neighborhoods; suffer from trauma, abuse and/or neglect; experience parental depression, and domestic violence; and experience exposure to environmental toxins (Anderson, et al., 2009; Brooks-Gunn & Duncan, 1997). Wahlberg (2010) describes how poverty is linked to child-rearing practices that include "fewer verbal interchanges, less praise and affection and provision of poor problem-solving strategies' impact achievement" (p. 34).

The culture and environment in which children are raised may play a vital role in the achievement gap. Jencks and Phillips argue that African American parents may not encourage early education in toddlers because they do not see the personal benefits of having exceptional skills. As a result of cultural differences, African American students tend to begin school with smaller vocabularies than their White classmates (Jencks & Phillips, 1998). These children can benefit from high quality Pre-K, childcare, or preschool settings. "These center-based programs can offer the parent respite from child care and teach the child communication and problem-solving skills that may buffer the child from some effects of neglect" (Wasik, 1998, as cited in DePanfilis, 2006, p. 55).

The research from Sadowski (2006) and Rose (2010) show a connection between socioeconomic status and preschool attendance, but Sadowski (2006) goes on to create an even stronger connection between socioeconomic status and school readiness, explaining that there are vast disparities in what different children know when they come to school due to their life experiences, which greatly affects how well they will do in the classroom. He noted that "most researchers agree that socioeconomic status – closely associated with race and ethnicity – is one of the strongest predictors of low skills at school entry" (Sadowski, 2006, p. 1). Rouse et al. (2005) further explained this connection, including commentary on how race and ethnicity can play a role as well:

10% of White children, as against 37% of Hispanic and 42% of Black children, live in poverty. Further, the better the socioeconomic status of a child's family, the more likely that child is to be "ready" for school. Given the close links between race and ethnicity and family socioeconomic status, on the one hand, and socioeconomic status and school readiness, on the other, it is not surprising that family socioeconomic status appears to explain a substantial portion of the racial and ethnic gaps in readiness. (p. 8)

Research such as this is what prompted presidential campaign slogans of recent years to be centered around the idea of creating a universal pre-kindergarten program for all students to attend, regardless of family income, so that children all over the United States would have equal opportunities to learn and grow together while preparing for kindergarten (Besharov & Call, 2008).

Impoverished families are overstressed in trying to meet the daily needs of their families, which can result in depression, difficulty in nurturing, disengagement, and difficulty focusing on the needs of the children (Jensen, 2009). Low-income children experience less cognitive

stimulation, less cognitive stimulation, less enriched vocabulary, as well as language interaction. Children from lower socio-economic families enter kindergarten up to four times behind their counterparts in language expressed in their vocabulary (Hart & Risley, 1995). According to a national survey by U.S. Department of Health and Human Services, "59% of American parents above the poverty line were involved in three or more school activities on a regular basis; this contrasts with 36% of parents below the poverty line" (Evans, 2004, p. 81). Additionally, chronic and unpredictable stresses, which families of poverty are more prone to, weakens the brain's capacity to learn, and decreases memory, and impairs attention and concentration (Yang, et al., 2003).

Research on preschool children from low socioeconomic classes dates back to the 1960s and 1970s with researchers like Labov (1970), Berstein (1977), and Heath (1983) working to begin large-scale efforts in assisting low socioeconomic, disadvantaged children with school readiness (as cited by Farkas & Hibel, 2008). These researchers concluded that, overall, the effects of having a low income drastically change the family factors involved in child rearing, such as having low vocabulary usage in the home, experiencing family distress and disorder in the home, and displaying harsh and ineffective parenting in the home (Farkas & Hibel, 2008). Because these factors are vastly different than the cognitive skill instruction that happens within warm and responsive parenting styles of higher-income families, children from low-income families are often not as developmentally ready for kindergarten as their peers (Farkas & Hibel, 2008).

Zaslow et al. (2000, as cited in Boethel, 2004) reported that the "large number of young children living in poverty is cause for concern because it has been found that poverty during the first five years of life is more detrimental than poverty experienced at any other point during

childhood or adolescence" (p. 35). Denton and West (2002) reported that "differences in children's overall achievement linked to their family's poverty status, race/ethnicity, and school type persist from kindergarten through the spring of first grade" (p. 65). "Poverty before five is associated with few total years of schooling, so it would appear a trajectory for school failure and dropout...poverty cab influence developmental outcomes...a home environment unsuitable for early learning and development, physical dangers for children" (Zaslow et al., 2000, p. 35). Bowman, Donovan, and Burns (2001) concluded,

Young children who are living in circumstances that place them at a greater risk of school failure—including poverty, low level of maternal education, maternal depression, and other factors that can limit their access to opportunities and resources that enhance learning and development—are much more likely to succeed in school if they attend well-planned, high quality early childhood programs (as cited in Boethel, 2004, p. 34)

Efforts toward Closing the Achievement Gap

The No Child Left Behind Act (NCLB) of 2001was created to significantly impact K–12 public education. At that time, only 32% of 4th graders were able to read at the proficient level; of those, only 7% of the students who scored at the proficient level were eligible for free or reduced lunch, 6% were Black, 8% were Hispanic and 16% were Native Americans (U.S. Department of Education Budget Service and The Nation's Report Card, 2002b; see Figure 1). Thus, most of the 68% who were not proficient were minority children and/or children who live in poverty (U.S. Department of Education Budget Service and The Nation's Report Card, 2000). States adopted learning standards that guided the content to be taught. Recently, many states have also adopted early learning standards for prekindergarten programs that address children's social skills underlying school success as well as the academic content areas. The

current preschool learning standards were created in response to NCLB requirements and focused on promoting cognitive, health, and social development in an effort to prepare them for kindergarten. Unfortunately, current research shows that too often, preschoolers are not receiving the quality early educational experiences they need in order to lay this foundation (Day &Yarbrough, 1998; National Institute of Child Health and Human Development, 1998; et al, 2001). President John F. Kennedy stated on February 20, 1961:

Our progress as a nation can be no swifter than our progress in education. Our requirements for world leadership, our hopes for economic growth, and the demands of citizenship itself in an era such as this all require the maximum development of energy young American's capacity. The human mind is our fundamental resource.

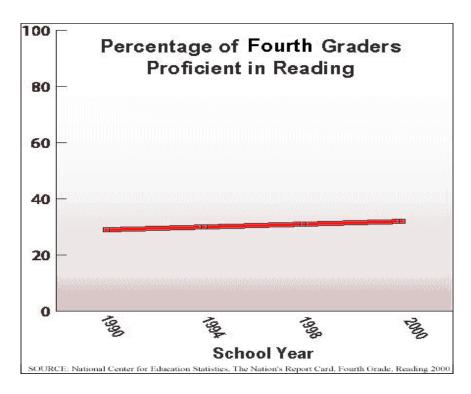


Figure 1: Percentage of fourth graders proficient in reading. (National Center for Education Statistics, The Nation's Report Card, Fourth Grade, Reading 2000).

The Good Start, Grow Smart (GSGS) initiative of 2002 (the White House, n.d.) was created to meet the school readiness mandates put forth in NCLB and to ensure that the more than 9.8 million preschoolers in our country (Johnson, 2005) all enter school ready to succeed. The quality early education standards that GSGS requires all states to create function as action plans by providing standards based on content explicitly outlined of what is expected of preschooler's development. These standards are also intended to measure early childhood educators accountable for quality teaching, and help guide their teaching practices. It was once believed that preschoolers' only needed supportive and nurturing early childhood educators.

Cognitive development is currently the focus in preparing preschoolers for school and life. Therefore, the accountability movement yielded by NCLB has trickled down to impact preschool education. Creating standards that anticipate all children are developmentally capable to learn in the same time frame is likely a disadvantage, especially for certain populations. Some children come to school with little or no parental support, and few have attended a quality prekindergarten program. These students are most likely at risk, and come from poverty-stricken families. Primary focus on cognitive development for this diverse population may be unfortunate. Early educators, in an effort to ensure that all children are cognitively ready for school, may resort to inappropriate methods to ensure preschoolers learn the skills outlined in preschool policy guidelines. This can have potentially damaging emotional, social, and academic consequences for preschoolers labeled as educational failures before they even enter the K–12 school system (Hatch, 2002). Narrowly focused standards could direct early educators away from other necessary areas of school-readiness, such as motivation and learning how to learn, as well as other important facets of early childhood education, like health and social and emotional development. In the extreme, it could limit teaching practices causing education to

become rigid, superficial, and narrow (National Association for the Education of Young Children, 2002).

Title I, the first section of NCLB, is the largest federal funding source for low-income students. Title I funds are the primary funding source for elementary and secondary education, and may be used assist young children as early as birth. Although the implementation of NCLB may present an amount of challenges that may impact available resources for prekindergarten programs, Title I of NCLB offers an opportunity for schools and districts to promote high-quality early education initiatives, which could be beneficial for at-risk children. As a result of NCLB many states and districts made dramatic changes in their educational systems.

With the passage of NCLB in 2001, a new urgency was put on schools to overcome and break through the achievement gap and set the same performance targets for children from economically disadvantaged families, for children with disabilities, for children with limited English proficiency, and for children from all major ethnic and racial groups (National Governor's Association Center for Best Practices, n.d.). If a school fails to meet performance targets, schools may be eligible for additional financial resources. However, after repetitive failure to meet academic benchmarks, schools may face consequences (U.S. Department of Education, 2002a). Possibly more despairing will be the 'label' given to the school for failing to meet performance standards, and labeled, 'Persistently Low Achieving School' status. "In other words, schools now are considered successful only if they close the achievement gap. Many schools are struggling to meet this benchmark" (National Governor's Association Center for Best Practices, n.d.).

The use of Title I funds for early education programs is not a new idea. Several school districts have utilized these funds to invest in early education programs for years. Even though

NCLB accountability requirements created new demands to maintaining or increasing those investments, there are also opportunities and incentives to support early education programs, and the flexibility of Title I funds can be used to support them. However, the requirements of NCLB and the limited funding available are placing school districts in an awkward position of not funding successful high-quality educational programs. Research shows that well-planned and well-implemented high-quality early educational programs have shown improvement for children particularly those from low-income families and immigrant families. Longitudinal research on three comprehensive early childhood programs with positive impacts on low-income into adulthood found that these programs generally began early in the child's life and at least by age three (Galinsky, 2006).

Children must continue to experience high-quality early educational opportunities and support services throughout their childhood years. Policymakers along with early childhood educators must continue communication about the best approaches to have effectively implemented pre-kindergarten programs. To support early educators' school-readiness efforts, it is necessary to provide education, training and materials. The standards within preschool policy guidelines may well fall short of their mark of ensuring that all preschoolers will enter school ready to learn without focused attention to coordination, communication, consensus building, and financing (NAEYC, 2002).

There are a growing number of preschoolers age three to five in the United States. Their school readiness is important to later years' success in school and to the nation's progress. This belief has become the topic of national debates and has gained the attention of early education advocates, organizations, and the public. NCLB has placed early education into the political arena. Early educators' teaching practices are influenced by initiatives, acts, legislation,

mandates, policies, and guidelines that outline what is acceptable. Early educational experiences are relevant and cannot be overlooked. It will take efforts and strong leadership at the federal, state, and local levels to successfully create and sustain stable investments in young children.

Rick Stiggens (2008) challenged current assessment beliefs, "We have come to a tipping point in American education when we must change our assessment beliefs and act accordingly, or we must abandon hope that all students will meet standards or that the chronic achievement gap will close" (p. 1). As schools and educators in Alabama moved forward to meet the new NCLB requirements, they became more assessment literate, embracing the concept of assessment for learning.

Although progress has been made in closing the achievement gap, the gap still exists. An abundance of financial resources have been reverted to support these efforts. Since 1965,

American taxpayers have invested more than \$778 billion on federal programs for elementary and secondary education (National Center for Education Statistics, 2005). The No Child Left Behind Act of 2001 dramatically increased federal spending on and authority over public education in America to an all-time high, requesting \$24.4 billion for No Child Left Behind in 2008, a 41% increase over 2001 spending. Education reform also required states to spend additional funding to comply with new policies, with some states spending 17 to 20 million dollars to meet regulations (Lips & Feinberg, 2007). Since the Elementary and Secondary Education Act first passed Congress in 1965, the federal government has spent more than \$321 billion (in 2002 dollars) to help educate disadvantaged children. Forty years and \$321 billion later, "only 32% of 4th-graders can read skillfully at grade level" (U.S. Department of Education Budget Service and The Nation's Report Card, 2000, p.2).

High-Quality Pre-K Programs

Neuman (2003) stated, "High-quality pre-kindergarten has been documented to be the single best investment for improving achievement" (p. 289). Neuman (2003) also pointed out that "to get the best investment, however, we need to think more strategically about the components of early intervention programs" (p. 289). Each and every year, public schools become more scrutinized on teaching effectiveness and student outcomes. This has resulted in the ever-pressing need for interventions to occur at a younger age. Young children must receive access to learning before the age of five if high academic achievement is to be expected. Studies have shown that access to pre-kindergarten programs will provide this much needed early cognitive development (Lazarus & Ortega, 2007).

Chien et al. (2010) cited a study dealing with early cognitive and language development of early childhood students. Burchinal et al. (2000) pointed out the findings of their study "provide further evidence that researchers and policymakers should strive to improve the quality of child care to enhance early development" (p. 339). High-quality pre-kindergarten programs must introduce children to critical pre-reading skills. This early exposure to the letters of the alphabet and other print concepts does not always occur at home. Children who have been raised in poverty have lacked reading exposure or other stimulating experiences, or who possess certain cognitive deficits are often found to be below average in letter naming and phonological skills (Molfese et al., 2006). Regardless of children's background or cognitive level they could potentially benefit from intervention designed and implemented based on data collected from assessments often used in high-quality Pre-K programs.

The National Association for the Education of Young Children (NAEYC) (2009) outlined five key guidelines for practitioners in Pre-K in support of high-quality programs: (a) creating a

caring community of learners; (b) teaching to enhance development and leaning; (c) planning curriculum to achieve goals; (d) assessing children's development and learning; and (e) relationships with families. What does this look like in classrooms? Programs designed for young children should be based on what is known about young children (Bredekamp & Copple, 1997). More specifically, early childhood curriculum should reflect:

- The way children learn. It should be provided to reflect the concrete stage of development and be meaningful and relevant. It should be guided by best practices within what is developmentally appropriate for the group of students as a whole as well as for each individual student (NAEYC, 2009).
- Whole child development, including physical, social, emotional, aesthetic and cognitive development. Development in one domain influences and is influenced by development in other domains...and a quality early education curriculum should equally support all domains (NAEYC, 2009).
- Emotional development is just as important for children's future development and school success. That is, "Children who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress, do less well in school" (Raver, 2002, p. 4). This problem is worsened because children who display antisocial behavior are less likely to be accepted by their peers and teachers, and become more likely to dislike school, which impacts achievement (NAEYC, 2009).

Programs should be guided by best practices within developmentally appropriate for the group of students as a whole as well as for each individual student (NAEYC, 2009). Childhood development is orderly and proceeds in predictable directions toward greater complexity,

supporting the use of age appropriate curriculum with optimal periods for certain types of development and learning (NAEYC, 2009). However, learning and development occurs at varying rates and is often uneven child to child. The rapid rate of development in early childhood dictates that curriculum also reflects individually appropriate needs (NAEYC, 2009). Therefore, curriculum should represent both age appropriate and individually appropriate learning opportunities for all children in the classroom, the definition of developmentally appropriate practices (DAP) for young children (Gestwicki, 2007; NAEYC, 2009).

However there is much confusion as to what these DAP practices actually look like in a classroom. Some misunderstanding about DAP include: There is only one right way to carry out DAP; DAP classrooms are unstructured; teachers teach minimally or not at all; and DAP classrooms don't include academics (Gestwicki, 2007, 2011).

Bredekamp and Copple (1997) explain that DAP classrooms recognize the fact that children are active learners, drawing on direct physical and social experiences as well as culturally transmitted knowledge to construct their own understandings of the world around them. Furthermore, children are provided a safe and secure environment in which they can form relationships with responsive adults and peers. They are also given the opportunity to practice newly acquired skills (a type of hands-on learning that forms connections in the brain) and to play. Play should be used as a foundation of the preschool curriculum. Play is an important vehicle for children's social, emotional, and cognitive development and children must be given the opportunity to further develop and thrive in early childhood classrooms (Bredekamp & Copple, 1997; Copple & Bredekamp, 2009b; NAEYC, 2009).

The National Association for the Education of Young Children created guidelines that many states use when designing or evaluating Pre-K programs. These are professional

classroom standards that are designed to promote children's learning. There are four core dimensions of practices: (1) implementation of a curriculum that is sensitive to the developmental capabilities and backgrounds of the children; (2) effective teaching characterized by coherent development of ideas, feedback, and multiple instructional approaches to optimize children's learning opportunities; (3) ongoing assessment of children's development for individualization of instruction; and (4) the positive teacher-child relationship is vital to children's school success (Bredekamp & Copple, 1997).

The quality of a preschool educational program has been an important factor when determining its educational value. Many preschool programs in the United States offer services of poor or mediocre quality (Barnett, et al., 2006). However, there is no single agreed-upon definition of quality for preschool programs (Collins, 2009). Collins identified structural and process characteristics for determining the quality of early childhood centers. The National Institute for Early Education Research (NIEER) developed 10 benchmarks for state standards relating to program quality (Barnett et al., 2010). The 10 benchmark standards are (a) comprehensive early learning standards; (b) teacher with a bachelor of arts degree; (c) specialized training in pre-kindergarten; (d) assistant teacher with a child development associate credential; (e) at least 15 hours per year of in-service training for teachers; (f) maximum class size below 20; (g) staff-child ratio of 1:10 or better; (h) vision, hearing, and health services; (i) at least one meal; and (j) site visits. At the beginning of the 2010–2011 school year, lead teachers in public and nonpublic schools were required to have a bachelor's degree or higher in early childhood education. During the 2009–2010 school year, Alabama, Alaska, and North Carolina had programs that met all 10 quality benchmarks. Georgia met nine of the benchmarks (Barnett et al., 2010). Current research on pre-kindergarten programs, including Head Start, indicates the

extensive quality variations between existing programs (Gormley et al., 2005). The effects these programs have on children are closely connected to the quality of the education they provide. Alabama's state funded First Class Pre-K program has been awarded the highest quality rating by NIEER for the past eight years. Alabama is one of only five states to receive this distinction. Alabama has scored a perfect "10" on these quality standards by meeting and/ or exceeding the benchmarks established by NIEER. The Office of School Readiness in Alabama (OSR) is dedicated to working with pre-K programs to ensure that Alabama's 4-years-olds have access to high quality learning experiences to ensure they are prepared for school success. OSR works with classrooms to promote those high quality experiences in Alabama. Chart 1 outlines the quality criteria defined by NIEER as well as how Alabama implements the criteria in its First Class Pre-K classrooms.

Quality Indicators	Office of School Readiness Recommendations	
Early Learning Standards	Alabama Developmental Standards for Preschool Children (Online at www.children.alabama.gov under the Office of School Readiness section)	
Teacher Degree	Lead Teacher must have a Bachelor's Degree in Early Childhood Education or Child Development, at minimum	
Teacher Specialized Training	Lead Teacher must have specialized training in early childhood field	
Auxiliary Teacher Degree	Auxiliary teacher must have a Child Development Associate credential (CDA) or equivalent (9 hours of approved coursework in child development), at minimum	
Teacher In-Service	Lead Teacher must have at least 30 hours yearly in-service professional development and training	
Maximum Class Size	Maximum number of children per classroom must be 20 or fewer; recommended number is 18	
Staff-Child Ratio	Lowest acceptable ration of staff to children in classroom must be 1:10 or better	
Screening/Referral and Support Services	Provide physical, vision, hearing and dental screenings and referrals and at least one additional support service to families; all parents complete the Ages and Stages Questionnaire-3 (ASQ-3) developmental screener	
Comprehensive Curriculum	First Class Pre-K classrooms will implement the Alabama First Class Framework, which consists of the Alabama Developmental Standards for Preschool Children, First Class Program Guidelines, First Class Classroom Guidelines, the ASQ-3 Developmental Screener and the Teaching Strategies GOLD Assessment. Classroom guidance and support will be provided by First- Class Coaches.	
Monitoring Source: Alabama Office of School 1	Site visits and monitoring will be provided by First Class Monitors to ensure quality and compliance. The Early Childhood Environmental Rating Scale (ECERS) and other assessments are administered to ensure the program is meeting children's needs. Readiness (p.2). Reprinted by permission of the Alabama	
Department of Children's Affairs	Reduiness (p.2). Reprimed by permission of the Aldouma	

Chart 1: NIEER Quality in Alabama's First Class Pre-K Program.

Barnett, Carolan, Fitzgerald, and Squires (2011) reported that children who attend preschool are more likely to succeed in kindergarten than those who do not. Participating in

early education can also provide academic and social benefits that last well beyond kindergarten. Researchers have repeatedly demonstrated that children particularly from low-income families benefit from high quality preschool (Espinosa, 2002). High quality preschool programs make every effort to prepare children for the academic and social expectations of a kindergarten program. Children who attend a quality preschool program are exposed to early literacy skills in order to increase their ability to read. Children at this age are also beginning to develop appropriate character traits and are learning to interact successfully with other people. Barnett and Belfield (2006) reported that center-based programs in which children actually attend classrooms are more likely to enhance development in children. As stated by Barnett and Belfield (2006),

In the best programs, children are systematically, regularly, and frequently engaged in a mix of teacher-led and child-initiated activities that enhance the development of language, knowledge of concepts and skills, problem-solving abilities, self-regulation and other socio-emotional skills, attitudes, values, and dispositions. (p. 80)

Mead (2008) reported that researchers at the National Center for Early Development and Learning have recognized characteristics in teachers that are conducive to learning in a preschool setting. These characteristics include clear and concise instruction in crucial skills, positive, compassionate, and sensitive interactions, constructive feedback, effective verbal interaction, productive stimulation, and a classroom environment that is encouraging, respectful, and inviting. Research shows that children in preschool programs aligned with the educational goals of early elementary school are likely to graduate high school and become productive citizens (Gilliam, 2005).

School Readiness

Definitions of school readiness have been debated for years. In general, the most widely accepted idea of school readiness revolves around the demonstration of a child's skills, behaviors, or attributes in relation to the expectations of individual classrooms (Lin, Lawrence, & Gorrell, 2003). The United States Department of Health and Human Services conducted a meeting in 2008 that focused on synthesizing early childhood readiness research. The meeting record included the statement that, "In theory, definition of school readiness should identify the foundational skills, content knowledge, and concepts children need when they enter school, in order to achieve academic success in early elementary schools and beyond" (National Center for Children in Poverty & Abt Associates, Inc., 2008, p. 6).

The ability to manage their emotions and behaviors and to make meaningful friendships is an important prerequisite for school readiness and academic success. Socially competent children are also more academically successful, and poor social skills are a strong predictor of academic failure (Reid & Webster-Stratton, 2004). As educators, our goal is to give each and every student the best education possible. Unfortunately, each and every year this goal becomes harder to attain. One of the main reasons this has become such a struggle centers on the growing concern about children's lack of school readiness (Bowman, Donovan, & Burns, 2000). Evidence suggests that children's school readiness, especially children from disadvantaged backgrounds, is enhanced in pre-kindergarten programs (Magnuson, Meyers, Ruhm, & Waldfogel, 2004).

In 1997, the United States developed a National Education Goals Panel (NEGP). This group looked at a number of factors affecting public schools in the United States. They developed eight goals related to student success from early childhood through high school. The

published document, *The National Education Goals Report: Building a Nation of Learners* (1997), identified the first goal as Ready to Learn. The goal claimed, "By the year 2000, all children in America will start school ready to learn" (National Education Goals Panel, 2000 par.1). Three components of school readiness were identified by this panel: children being ready for school so they can participate in the classroom and in various learning experiences, schools being ready for the children by responding to the needs of the children enrolled in the program, and promoting family and community environments that support learning. An important component of school readiness is the need for continued understanding of how to reach out to young children and their families to facilitate learning once the children arrive at school. The NEGP continued to refine the definition of readiness until it was accepted by the early childhood community (Wesley & Buysse, 2003). According to the NEGP (2000), readiness focuses on five different areas of development. The five areas are:

- 1. Motor development and physical well-being
- 2. Social and emotional development
- 3. Approaches toward learning
- 4. Language usage and the ability to communicate
- 5. Cognition and general knowledge

Development in one of the five areas affects development in all other areas (Children Now, 2009).

In the May 2000 legislative session, the Office of School Readiness (OSR) was created in the Department of Children's Affairs (DCA) and charged with the task of developing a statewide definition of school readiness for four-year-olds. In December 2002, the Alabama Office of School Readiness adopted the following definition:

'School Readiness' is a condition whereby children enter school with:

- (a) an enthusiasm for learning,
- (b) an ability to function in a social setting,
- (c) age-appropriate communication and problem solving skills,
- (d) age-appropriate physical and emotional skills, and
- (e) optimal health.

School readiness is fostered through opportunities that promote child exploration, sociability, curiosity, creativity, decision making, independence, and responsibility, in combination with partnerships among families, teachers, local, and state communities. A child who is ready to learn when entering school will be able to obtain optimal benefits from learning experiences offered by the school and will encounter fewer obstacles to learning. Supporting children to be "ready for school" is essential in the attainment of:

- (a) educational achievement and success,
- (b) reduction of retention and remediation resulting in financial benefits,
- (c) higher individual economic status, and
- (d) a positive sense of social responsibility

thus creating a stronger, healthier society (Alabama Department of Children's Affairs Office of School Readiness, 2010).

Alabama's First Class Pre-K Program

Alabama's First Class Pre-K Program is part of the Alabama Office of School Readiness within the Department of the Alabama Department of Children's Affairs, which is overseen by the Governor, Dr. Robert Bentley. First Class provides effective, high quality early childhood experiences that prepare Alabama's children for school success and lifelong learning by focusing

on quality, expansion, technology, transparency and accountability, and technology and reporting processes. In 2012–2013, six percent of Alabama's four-year-olds were enrolled in the First Class program. However, Governor Bentley and the Alabama Legislature have doubled investments in Alabama's First Class Pre-K Program, expanding access to an expected twelve percent during the 2014–2015 school year.

"Alabama began offering state-funded preschool to 4-year-olds through the Alabama Pre-Kindergarten Program in 2000" (National Institute for Early Education Research, 2009, p. 30). Other than the age criteria, there are no specific eligibility requirements to enroll a child in Pre-K in Alabama.

Sites for the programs are selected through a competitive grant process and include public schools, private child care centers, Head Start centers, faith-based centers, and colleges and universities. Grantees must provide a local match of their grant award, which varies across grantees and program years. The state aims to have at least one classroom per county. (National Institute for Early Education Research, 2009, p. 30)

In 2010, the Department of Children's Affairs and the Alabama Department of Education began a partnership to interlock two documents into one set of standards for all preschool children in the state. The present document, *Alabama Developmental Standards for Preschool Children*, is a result of these two departments having a shared vision that all children should be provided school readiness experiences that meet their individual needs. These standards may receive modifications and accommodations to classroom activities, routines, and learning areas that may be needed to enhance the participation of children with disabilities.

The Alabama Department of Education and the Department of Children's Affairs believe that parents are the most important teachers of young children. Increasing numbers of low-

income parents in the workforce have resulted in more young children in childcare for more hours than ever before, being cared for and partially raised by non-parents (Schumacher, Irish, & Lombardi, 2003). Interactions between parents and children are becoming limited and place children at risk for low academic performance and inadequate school success.

The Alabama Developmental Standards for Preschool Children is designed to be collectively reflective of the standards and curricula used in various preschool settings throughout the state, and serves as a progression to the kindergarten standards contained in the Alabama Courses of Study. The standards describe desired outcomes for all preschool children as they enter kindergarten. The Developmental Standards also incorporates the philosophy of including children with disabilities in preschool programs and the importance of teachers making the necessary accommodations to the curriculum and the learning environment based on the individual needs of children.

The Alabama Developmental Standards for Preschool Children are based on what is currently known about preschool children, and should be used as a guide for teachers to aid in planning pre-kindergarten experiences that will promote children's progress toward achieving benchmarks. The standards are fundamental and specific, but not all-inclusive. Preschoolers should be engaged in all areas of development because they are considered equally important and support leaning. The standards are grouped around nine areas of development:

- Approaches to Learning
- Language and Literacy
- Mathematics
- Science
- Creative Arts

- Technology
- Social and Emotional Development
- Physical Development
- Health and Daily Living

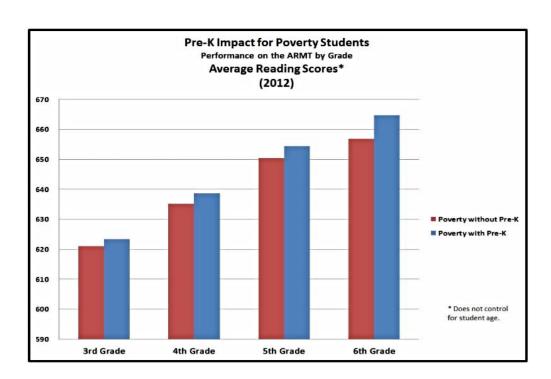
Goals and standards in the nine areas align with kindergarten standards found in the subject area Courses of Study developed by the State Department of Education and with the 2011 Head Start Child Development and Early Learning Framework. The following chart shows the alignment of the major areas of development with the specific courses of study and the domains in the Head Start Child Development and Early Learning Framework (Alabama Department of Children's Affairs Office of School Readiness, 2010).

Alabama Developmental Standards for Preschool Children	Alabama Course of Study	Head Start Child Development and Early Learning Framework	
Approaches to Learning	None	Approaches to Learning	
		Logic and Reasoning	
Language and Literacy	English Language Arts-	Language Development	
	Kindergarten	Literacy Knowledge and Skills	
Mathematics	Mathematics – Kindergarten	Mathematics Knowledge and	
		Skills	
Science and Environmental	Science – Kindergarten	Science Knowledge and Skills	
Education			
Technology	Technology Education	Science Knowledge and Skills	
Social and Emotional Development	Social Studies	Social and Emotional Development Social Studies Knowledge and Skills	
Physical Development	Physical Education	Physical Development and	
		Health	
Health and Daily Living	Health Education	Physical Development and	
		Health	
Creative Arts	Arts Education – Kindergarten	Creative Arts Expression	
Source: Alabama Developmental Standards (p. xi). Reprinted by permission of the Department of			
Children's Affairs			

Chart 2: Alignment of Standards

According to research conducted by the Public Affairs Research Council of Alabama (PARCA), students who participated in Alabama's First Class Pre-K program academically

outperformed their peers once they reached elementary school, and the advantages conferred by Pre-K participation persist at least through the 6th grade. The research compares test scores of students who participated in the state's Pre-K program with students that didn't, and shows that the positive academic effects are particularly strong for Pre-K participants who come from lower income households. There is a persistent gap in academic achievement between students from low-income households and those from more affluent families. But for low-income students who participated in the Pre-K program that gap was about 25 percent smaller on average (The PARCA Perspective, October 2013).

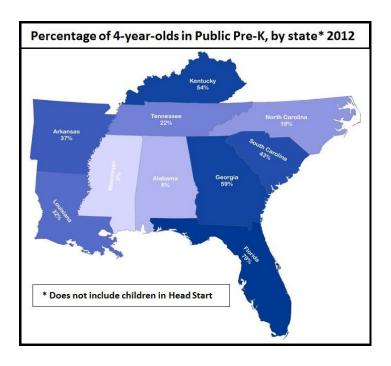


Source: www.archive.constantcontact.com/fs111/1106394189560/archive/115478890046.html

Figure 2: Pre-K Impact for Poverty Students

Alabama's First Class Pre-K Program was expanded during the fall of 2013 because of the Legislature's decision to increase Pre-K funding from \$19 million in 2012–2013 to \$28

million in the 2013–2014 budget year. The *New York Times* recognized Alabama as a model for President Obama's push to expand preschool. With the expansion, Alabama's public Pre-K is still relatively small. Approximately 9 percent or 5,500 of the state's 4-year-olds were served during the 2013–2014 school year. Currently, 12 percent are enrolled at more than 300 sites across the state while nationally, 28 percent of 4-year-olds are enrolled in state-financed Pre-K. In Georgia, where the state lottery contributes a portion of the proceeds to the program, about 60 percent of four-year-olds are enrolled in public Pre-K.



Source. http://archive.constantcontact.com/fs111/1106394189560/archive/1115478890046.html

Figure 3: Percentage of 4-year-olds in Public Pre-K, by state.

Summary

Literature suggests that the early years are the most important years of a child's life.

High quality early childhood education can increase school readiness and narrow the achievement gap between low-income students and other income students. Achievement gap

between lower socioeconomic and racial/ethnic groups of children and their counterparts is evident even before kindergarten. A large number of studies support the use of high-quality Pre-K opportunities that can make a significant difference in reducing these gaps (Boykin & Noguera, 2011).

There are 420 preschools associated with school districts in Alabama. School administrators in 420 schools in Alabama are now faced with the responsibility of recognizing and providing instructional leadership for high-quality Pre-K programs in order to generate results that positively impact children and yield academic benefits that can narrow the achievement gaps among groups of students. Research has proven that Pre-K education is a successful tool in bridging the achievement gap. Therefore, it is imperative to have a better understanding of what Alabama school administrators know and what they need to know regarding their knowledge of Pre-K and curriculum in order to achieve the desired results in Pre-K programs and successfully bridge the achievement disparities among Alabama students.

CHAPTER 3. METHODS AND PROCEDURES

Introduction

Information presented in this chapter is intended to add to the limited amount of research regarding principals' perceptions on the benefits of high quality Pre-K programs and their impact on student achievement for at-risk children in selected Central Alabama districts. This chapter contains five sections: (a) the researcher's role; (b) participants; (c) description of the testing instrument; (d) research design and data collection procedures; and (e) data analysis.

The Alabama First Class Pre-K Program is recognized by the National Institute for Early Education Research (NIEER) for the past eight years as having the highest quality rating, and working with pre-K programs to ensure that Alabama's four-year olds have access to high quality learning experiences to ensure they are prepared for school success. Four hundred twenty (420) schools across the state of Alabama are a part of the First Class Grant Pre-K Program. All of these schools have at least one Pre-K program on their campus.

The Office of School Readiness within the Department of Children's Affairs establishes the guidelines for Alabama Pre-K programs. The program guidelines are aligned with the Alabama Department of Education Course of Study. As previously mentioned, the purpose of this study was to examine Alabama public school principals' perceptions about Pre-K and its impact on student achievement for at-risk students. Using survey data, the study attempted to gain a better understanding of what Alabama school principals know and understand about the Pre-K program and their relationship to school achievement. The research design chosen was

quantitative. The quantitative approach was used to measure the effects of high quality Pre-K programs and its impact on student achievement for at-risk children in elementary schools within Central Alabama School Systems.

This study was framed around the following research questions:

- 1. What are Alabama elementary principals' perceptions about research linking children in high-quality Pre-K programs and later school achievement?
- 2. What are Alabama principals' perceptions about research-based high quality standards and curriculum in Pre-K programs?
- 3. To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-K programs in Alabama?
- 4. Is there a statistically significant difference between principals' perceptions of the benefits of Pre-K programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience?

The Researcher's Role

During the period of research the researcher was employed by the Macon County School System as a Principal, and Director of Human Resources/Professional Development Coordinator. The role of the researcher for this study was to examine the principals' perceptions of Pre-k programs. This study provided the researcher with an opportunity to analyze data collected from four district's principals for the purpose of determining their perceptions of the benefits of Pre-K programs. Because of the researcher's job position within one of the districts, measures were taken to avoid internal bias that could impact the true analysis of the study. The researcher understood the importance of the participants not feeling obligated to respond to the questionnaire in a manner that did not reflect their true beliefs.

Description of the Setting

The study took place in Central Alabama within five school districts. The five districts have a total of 54 elementary schools. District I has 14 schools, six of which are elementary schools. District II has eight schools, four of which are elementary schools. District III has six schools, three of which are elementary and one unit school. District IV has 51 schools, of which 32 are elementary schools. District V has 13 schools, five of which are elementary schools and two unit schools. According to the 2013–2014 Alabama State Department of Education Average Daily Membership, District I has approximately 11,069 students enrolled; District II has approximately 1,742 students enrolled; and District III has approximately 2,431 students enrolled. According to the school systems' website, District IV has approximately 31,316 students enrolled and District V has an approximate enrollment of around 10,000. Each elementary school within the districts is accredited by the Southern Association of Colleges and Schools. They are also accredited by the Alabama State Department of Education.

Over the past several years within the state of Alabama, there has been a heavy focus on funding more Pre-K programs to help increase student achievement for at-risk students. All five school districts have at least one or more publicly funded Pre-K program. Some districts with more than one Pre-K program will fund the second through the use of Title I dollars.

The Participants

The participants in this study consisted of all 54 elementary school principals from five school districts in Central Alabama. These principals are certified in the area(s) of Early Childhood Education (Grades P-3), Elementary Education (Grades P-6), or both. Principals in the study either led a public elementary school with a funded Pre-K program on campus or a Pre-

K program that was located within their school district during the 2013–2014 school year. The participants in this study were selected for the following reasons:

- 1. The principals involved in this study were charged with supervision of elementary curriculum.
- 2. Principals are qualified to analyze and disaggregate data from student test performance.
- 3. There is a limited amount of research on principals' perceptions of the benefits of prekindergarten programs.

Description of the Testing Instrument

The researcher requested and received permission to use a survey designed by Florendo (2012) entitled *Nebraska Public School Administrators' Perceptions of Preschool Education*.

For this study, in order to determine the principals' perceptions of the benefits of prekindergarten programs in Central Alabama, a modified version of Florendo's instrument, titled *Pre-K Programs in Central Alabama Schools Survey* (Appendix A), was used to collect data from the principals. The instrument assessed their perceptions toward benefits of high quality prekindergarten programs for at risk students. The two-part questionnaire was designed to collect data regarding background information of the respondents, perceptions of Pre-K programs impact on student achievement, principal's knowledge of early education research, principal's knowledge of early education research, principal's knowledge of early childhood education curriculum, relationship of resources to Pre-K, and whether there are differences in principals' perceptions about Pre-K. Permission to collect data was granted through the Office of Research Compliance–Human Subjects at Auburn University.

The instrument for this study consisted of two parts. Section I of the survey was designed to collect specific demographic information that led to a greater understanding of the sample population. The demographic portion consists of eight specific questions that were included to determine if there were any significant differences in principals' perceptions based on gender, age, level of education, years of experience as a principal, and student enrollment. Survey items 1–4 investigate the principals' personal and professional characteristics. Survey items 5–8 address the school's geographical location (rural and non-rural), enrollment of the school, and the socioeconomic status of the school. The statements in Section II on the survey were framed around the research questions and the common themes that were originated from the review of literature. The items were grouped according to the content/constructs that emerged during the review of literature. Messick (1994) argued that by using this design, all important parts of the construct domain are covered.

Section II of the questionnaire also consisted of a 20 item anchored on a four-point Likert-type scale (1 = None; 2 = A Little; 3 = Some; 4 = A Lot). Likert-type scales can be reliable and valid instruments for the measurement of attitude and perceptions (Gay & Arisain, 1999). Question items 9-14 address principals' perceptions of Pre-K programs impact on student achievement. Question items 15-18 address principals' knowledge of early education research. Question items 19-23 address principals' knowledge of early childhood education curriculum Question items 24-28 address the relationship of resources to Pre-K.

Reliability and Validity

The reliability and validity of the survey instrument used in this study was presented by Florendo (2012) in her dissertation, *Nebraska Public School Administrators' Perceptions of Preschool Education*. Creswell (2005) stated that in order to address validity of the survey, the

survey must be sent out first to two groups of experts who are knowledgeable on both content and expertise for feedback. Florendo (2012) sent the survey out to two groups of experts, school administrators who were purposely selected to provide feedback on the survey for content purposes, and three external experts who are very knowledgeable of Pre-K.

Florendo piloted the survey in a graduate administrator class for analysis of reliability.

The University of Nebraska at Lincoln's (UNL) Nebraska Evaluation and Research Center (NEAR) analyzed the results. Florendo reported in her dissertation that the Cronbach's alpha for the categories of Research was (.93) and for the category of Curriculum and High Quality Criteria was (.76). The survey reliability statistic Cronbach's alpha for the category of Perceptions of Pre-K was (.67). Through further analysis the rankings were proved to be strong for three of the four questions. Florendo's utilization of the expertise of UNL's NEAR Center, a Cronbach's coefficient alpha was analyzed for each category in the final survey. This shows that the instrument is a valid and reliable instrument for the purpose of the study.

Research Design and Data Collection Procedure

Prior to beginning the study, the researcher submitted a Research Protocol Review Form to the Office of Research Compliance at Auburn University. Upon approval from the Institutional Review Board for Research involving Human Subjects, the researcher began the study.

The researcher obtained written permission by the Superintendents of the participating school districts to survey all elementary school principals in their district (see Appendix B).

Once the participants had been identified and selected, a letter indicating the purpose of the study was sent to each elementary principal in Central Alabama via electronic mail (see Appendix C).

They were also informed that they would receive a questionnaire to assess their perceptions of the benefits of prekindergarten programs.

An information packet was mailed to all 54 elementary school principals within one week of the initial contact. The packet included an information letter on Auburn University letterhead (see Appendix D) with the district's approval letter to conduct the study (see Appendix E). Also, included in the packet were the questionnaire (see Appendix A), and a self-addressed, stamped envelope in which to return the completed questionnaire. Confidentiality of the participant, school and school district was noted in the consent letter and that their participation was voluntary. The participants were asked to complete and return the questionnaire. A follow-up electronic mail was sent to those administrators who had not returned the questionnaire within two weeks. Of the 54 questionnaires mailed, a total of 43 were returned, resulting in a return rate of 80%.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) 12.0. The 43 completed questionnaires contained eight demographic categories: gender, race, years of experience as a principal, level of education, rural or non-rural school, school enrollment, percentage of students on free and reduced lunch, and Title I or non- Title I school, as well as 20 stimulus statement responses. Each of the 20 statements was rated by principals as follows: 1 = None; 2 = A Little; 3 = Some; 4 = A Lot. The main statistical techniques used were frequency and percent, mean scores, standard deviations, correlation, t-test, and One-way ANOVA.

Summary

The researcher used a modified version of a questionnaire designed by Florendo (2012) in her dissertation *Nebraska Public School Administrators' Perceptions of Preschool Education*.

The questionnaire was examined by two groups of experts, and field-tested to establish validity and reliability. Because validity and reliability were previously established through Florendo's study, the questionnaire was administered to the participants. The questionnaires were anonymously returned via mail, and the data taken from the questionnaires were analyzed. Chapter IV of this study will present an in-depth analysis of the data collected. The data will be presented and interpreted using quantitative research methodology.

CHAPTER 4. RESULTS

Introduction

The purpose of this research study was to examine perceptions of Central Alabama elementary school principals on the benefits of Pre-K programs and its impact on student achievement for at-risk children. All 54 elementary school principals within the districts where the study took place were asked to participate. The questionnaire was sent and returned by 43 of the 54 participant principals or an 80% response rate.

The researcher investigated principals' overall perception of Pre-K programs, as well as examined whether a statistically significant relationship (p < .05), if any existed between principals' perceptions of Pre-K programs based on eight demographic areas. The areas included gender, race/ethnic origin, years of experience as a principal, level of education, rural or non-rural school, school enrollment, free/reduced lunch rate, and Title I or non-Title I school. Finally, the researcher investigated principals' beliefs regarding financial, facility or human resources impact on Pre-K programs.

This study was framed around four research questions:

- 1. What are Alabama elementary principals' perception about research linking children in high-quality Pre-K programs and later school achievement?
- 2. What are Alabama principals' perceptions about research-based high quality standards and curriculum in Pre-K programs?

- 3. To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-K programs in Alabama?
- 4. Is there a statistically significance difference between principals' perceptions of the benefits of Pre-K programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience?

Included in this chapter are the analyses of the data and the findings of the study. The data presented in this study were collected using a 28-item questionnaire which was mailed to the participants. The data from the returned questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS) 12.0 computer software. Descriptive statistics, independent samples t-tests, Pearson Correlations, and ANOVA were used to analyze the data.

The results will be discussed under the following sub-headings:

- 1. Demographic Characteristics
- 2. Principals' Knowledge of Early Education Research.
- 3. Principals' Knowledge of Early Childhood Education Curriculum
- 4. Resources to Pre-K Programs

Demographic Characteristics

The findings for the participants' demographics of the respondents are listed in Table 2. Sixteen (37.2%) of the respondents were male, and 27 (62.8%) were female. Eighteen (41.9%) of the respondents reported their race as White, and 25 (58.1%) as Black. The findings also revealed that 37.2% of the principals' indicated that their years of experience as principal ranged from 0-5 years, while just 9.3% had 21 and above years of experience. The respondents' level of education was reported as follows: 20 (46.5%) Master's degree, 20 (46.5%) Education Specialists degree, and 3 (7.0%) Doctorate degree. More than half (26 or 60.5%) of the

respondents' schools are classified as non-rural. Seven (16.3%) of the respondents worked at a school with an enrollment between 0–300 students, 16 (37.2%) between 301–500, 15 (34.9%) between 501–700, and 5 (11.6%) with an enrollment of 701 and above. A majority (31 or 72.1%) of the respondents noted free and reduce lunch rates at their school of above 55%. Thirty four (79.1%) of the respondents work at a Title I school.

Table 2

Descriptive Statistics for the Respondents' Demographics

Variable	%	n
Gender		
Male	37.2	16
Female	62.8	27
Race		
White	41.9	18
Black	58.1	25
Years' Experience as Principal		
0–5 Years	37.2	16
6–10 Years	27.9	12
11–15 Years	7.0	3
16–20 Years	18.6	8
21 Years and Above	9.3	4
	/. 1.1	. •

(table continues)

Variable	0/0	n
Education Level		
Master's Degree	46.5	20
Education Specialist	46.5	20
Doctorate	7.0	3
School Classification		
Rural	39.5	17
Non-rural	60.5	26
School Enrollment		
0–300	16.3	7
301–500	37.2	16
501–700	34.9	15
701–900	7.0	3
901–1200	2.3	1
1200 and above	2.3	1
Free/Reduced Lunch Rate		
Below 35%	7.0	3
35%-55%	20.9	9
Above 55%	72.1	31
Title I School		
Yes	79.1	34
No	20.9	9

Results

Survey participants responded to questions in four categories using a four-point Likert scale for each survey item: Perceptions of Pre-K programs (6 questions); Research linking Pre-K to later school achievement (4 questions); High-quality criteria and curriculum (5 questions); and Resources (5 questions). Survey category ratings are shown in Table 3. Overall results are given in each section, with the mean rating in each category. The highest rated category was principals' perceptions in "Curriculum" while "Research" was the lowest rated category (see Table 3). These findings are similar to earlier studies conducted by Neuman (2003) and Reid and Webster-Stratton (2004) where they found that high-quality pre-kindergarten has been documented to be the single best investment for improving achievement, and socially competent children are also more academically successful, while poor social skills are a strong predictor of academic failure. Sections 1 through 4 will examine overall survey results by category, and each survey item in the category. Data are also disaggregated for the subgroup of elementary principals to address the Research Questions 1 through 4. Descriptive statistics, independent ttests, one-way analysis of variance and Pearson correlation were the other statistical techniques used to analyze the data. As indicated in Table 3, the variable with the highest mean score was 3.74 was "knowledge of early childhood education curriculum", while "knowledge of early childhood education research" was rated as 2.86. The latter may suggest that principals may not consider this variable as beneficial to quality Pre-K programs.

Table 3

Category Survey Overall Mean Scores

Survey Results by Category:	Questionnaire Items	Mean	SD
Sections I–IV			
perceptions of pre-k programs impact on student achievement	Perceptions of Pre-K (6 questions) Questionnaire Items 9, 10, 11, 12, 13, and 14	3.0	1.59
knowledge of early education research	Research (4 questions) Questionnaire Items 15, 16, 17, and 18	2.86	.94
knowledge of early childhood education curriculum	Curriculum (5 questions) Questionnaire Items 19, 20, 21, 22, and 23	3.74	.56
relationship of resources to pre-k	Resources (5 questions) Questionnaire Items 24, 25, 26, 27, and 28	3.11	.99

Section I of the questionnaire contained six questions that gauged the principals' perceptions of Pre-K programs. Elementary principals were asked to indicate the response that most closely represented the experience at their school according to the level of importance placed on Pre-K programs (M = 3.48); emphasis on development, continuation or expansion of Pre-K programs (M = 3.09); increase in Pre-K programs (M = 3.00); Pre-K programs discussions with stakeholders (M = 3.02); teachers endorsed in early childhood education for kindergarten through second grade (M = 3.27); and staff development that pertain to Pre-K programs (M = 2.19).

Mean scores for survey items 9 through 14 ranged from 2.19 to 3.48 (see Table 4). In relation to the four-point Likert type scale used in this study about the participants "Perceptions

of Pre-K programs". Questions 9–14 showed a high level of agreement with an overall category rating of 3.00. The item, "What importance is placed on early childhood education in your school district?" was the highest rated item (3.48), and "When your district provides staff development on the topic of curriculum, how often are there opportunities for staff development that pertain to preschool"? was rated the lowest (2.19). There were no significant differences between the subgroups of elementary principals for this category or any survey item 9–14, in the category of "Perceptions of Pre-K" between elementary principals. There was a significant difference for survey item 10 "As schools strive to improve student achievement, what emphasis is given to the development, continuation or expansion of early education programs to support these efforts?" (p = .051).

Table 4

Principals' Perceptions on the Benefits High Quality Pre-K Programs

Questionnaire Item	N	M	SD
9. What level of importance is placed on early childhood education in your school district?	43	3.48	0.90
10. As schools strive to improve student achievement, what emphasis is given to the development, continuation or expansion of early education programs to support these efforts?	43	3.09	1.01
11. As more preschools are implemented in school districts throughout Alabama, to what extent have there been conversations about implementing or increasing preschool programs in your district over the past nine months?	43	3.00	1.04
12. To what extent has Pre-K been discussed with stakeholders, (teachers, parents, community members, school board members, etc.) within your school district?	43	3.02	0.93
13. Are educators with endorsements in Pre-K specifically recruited for kindergarten through second grade openings?	43	3.27	4.47
14. When your district provides staff development on the topic of curriculum, how often are there opportunities for staff development that pertain to preschool?	43	2.19	1.23

Research Question One

Research Question One was: What are Alabama elementary principals' perception about research linking children in high-quality Pre-K programs and later school achievement? Elementary principals in the five public school districts indicated their knowledge of early education research on a four-point Likert type scale. The data in Table 5 show the means and standard deviation for principals' perceptions about research linking children in high-quality Pre-K programs and later school achievement.

In survey items 15 through 18 asked participants were asked to rate their perceptions of "Research on Pre-K" and its impact on school achievement for at-risk children. An examination of the findings revealed that the mean scores for questions 15–17 ranged from 2.69 to 3.23 on the 4-point scale. The survey item "What do you know about the long-term academic achievement

benefits for at risk children who attend high-quality Pre-K programs?" rated the highest overall (3.23). The survey item "What do you know about early brain development research?" along with the survey item "What do you know about the positive long-term early childhood education studies and its impact on student achievement for at-risk children? rated the lowest overall (2.69). These findings support earlier studies conducted by the HighScope Perry Preschool Study (Schweinhart, et al., 2005) and the Carolina Abecedarian Project (Campbell, et al., 2002).

Table 5

Principals' Perceptions about Research Linking Children in High-Quality Pre-K Programs and Later School Achievement

Questionnaire Item	N	M	SD
15. What do you know about early brain development research?	43	2.69	0.91
16. What do you know about the positive long term early childhood education studies and the impact on student achievement for at risk children (Perry Project Study, Abecedarian Study, etc.)?	43	2.69	1.12
17. What do you know about the cost benefits of providing Pre-K programs vs. later intervention programs such as special education services, self-supporting employment, etc.?	43	2.83	0.97
18. What do you know about the long term academic achievement benefits for at risk children who attend high quality early childhood education programs?	43	3.23	0.78

Research Question Two

Research Question Two was: What are Alabama principals' perception about research-based high quality standards and curriculum in Pre-k programs? The data in Table 6 shows the means and standard deviation for principals' perceptions about research-based high quality standards and curriculum in pre-k programs. In survey items 19 through 23 participants were asked to rate their perceptions of "Curriculum" in Pre-K programs. An examination of the

findings revealed that the mean scores for questions 19–23 ranged from 3.62 to 3.90 on the 4-point scale. The survey item "What level of importance should be devoted to learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.?" rated the highest overall (3.90). The survey item "What level of importance should be devoted to learning school routines, walking in a line, learning to sit quietly, etc.?" rated the lowest overall 3.62 (see Table 6).

Table 6

Principals' Perceptions about Research-Based High Quality Standards and Curriculum in Pre-K
Programs

Questionnaire Item	N	M	SD
19. What level of importance should be placed on identification of letters and numbers in early childhood education programs?	43	3.76	0.52
20. What level of importance should be placed on learning to write one's name?	43	3.67	0.64
21. What level of importance should be placed on communication, talking, and expansion of vocabulary?	43	3.79	0.59
22. What level of importance should be devoted to learning school routines, walking in a line, learning to sit quietly, etc.?	43	3.62	0.69
23. What level of importance should be devoted to learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.?	43	3.90	0.36

Research Question Three

Research Question Three was: To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-K programs in Alabama? In survey items 24–28 participants were asked to rate their perceptions of "Resources" and its impact on accessibility and availability to Pre-K education within their school district. An examination of the findings revealed that the mean scores for questions 24–28 ranged from 3.11 to 3.13 on the 4-point scale.

The survey item "To what extent do financial resources have in your school district's ability to offer an early childhood education program?" along with "To what extent does accessibility to teacher resources, such as certified early childhood education teachers, have in your school district's ability to offer a Pre-K program?" rated the highest overall (3.13). The survey item "To what extent do adequate building facilities have in your school district's ability to offer a Pre-K program?" along with "To what extent does offering family support and or parent education programs have in your school district's ability to offer an early childhood education program?" and "To what extent do other community resources, such as community Head Start programs and existing community preschool programs, have in your school district's ability or choice to offer a Pre-K program?" rated an overall 3.11 (see Table 7).

Table 7

Principals' Beliefs that Financial, Facility, or Human Resources Impact Pre-K Programs

Questionnaire Item	N	M	SD
24. To what extent do financial resources have in your school district's	43	3.13	1.01
ability to offer an early childhood education program?			
25. To what extent do adequate building facilities have in your school	43	3.11	1.02
district's ability to offer a Pre-K program?			
26. To what extent does accessibility to teacher resources, such as	43	3.13	0.94
certified early childhood education teachers, have in your school			
district's ability to offer a Pre-K program?			
27. To what extent does offering family support and or parent education	43	3.11	0.98
programs have in your school district's ability to offer an early			
childhood education program?			
28. To what extent do other community resources, such as community	43	3.11	1.02
Head Start programs and existing community preschool programs,			
have in your school district's ability or choice to offer a Pre-K			
program?			

Research Question Four

Research Question Four was: Is there a statistically significant difference between principals' perceptions of the benefits of Pre-K programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience? Several bivariate Pearson correlations were calculated to address research question 4. The correlational matrix is listed in Table 8. The Pearson correlation analysis reflected statistically significant relationships at both the (p < .05, **p < .01) in six of the eight demographic variables. The correlation coefficient ranges from .01 for years of experience with Title I/Non Title I schools. Conversely, gender and Title I/Non Title I schools had the highest correlation coefficient (-.74).

Table 8

Pearson Correlations for Principals' Perceptions of the Benefits of Pre-K Programs When Grouped According to Gender, Ethnicity, Qualifications, Number of Certifications, and Years of Experience

	1	2	3	4	5	6	7	8	p
Gender (1)	-	.12	.14	13	-03	-08	-20	.27	.41
Race (2)		-	02	.15	10	-31*	.36*	25	.41
Years Experience (3)				02	.42**	.19	06	.01	.34
Educational Level (4)					08	31*	.15	32*	.37
School Classification (5)						.37*	23	.29	.83
School Enrollment (6)							45**	.46**	.95
Free/Reduced Lunch (7)								74**	.18
Title I/Non Title I (8)									.07

Note. **p* < .05, ***p* < .01

Summary

The purpose of this research study was to examine Alabama elementary school principals' perceptions about Pre-K and its impact on student achievement for at-risk children. Chapter IV presented the findings for this study. Principals overall ranked the categories of "Perceptions" about Pre-K relatively high at 3.0, and "Resources" about Pre-K relatively high with a mean score of 3.11. Pre-K "Curriculum" was the highest ranking category, with a category mean of 3.74, while the category of "Research" about Pre-K scored the lowest 2.86. Results from the Pearson correlation analysis reflected statistically significant relationships at both the (p < .05, **p < .01) in six of the eight demographic variables. Gender and Title I/Non Title I schools had the highest correlation coefficient (-.74). Based on the perceptions of the population of this study, the analysis of the data suggests that elementary principals perceive Pre-K programs to have an effective impact on student achievement for at-risk children. The next chapter will present a discussion of these findings, implications, and recommendations for further research.

CHAPTER 5. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to examine principals' perceptions on the benefits of high quality Pre-K programs in Central Alabama public elementary schools. Results from longitudinal studies of children attending high-quality Pre-K programs present a significant case that comparable programs can be used as a tool to close the achievement gap. Chapter I presented an overview that included the historical background of quality early childhood education programs and its benefits for at risk children. The statement of the problem, significance of the study, key terms, limitations, delimitations, and assumptions were also discussed. Chapter II included a review of literature. The literature review presented information regarding the theoretical framework of child development and student needs. The review of literature also discussed the effects of Pre-K for at-risk children, addressed the achievement gap between races, examined relevant research studies related to the benefits of high-quality Pre-K programs, discussed the importance of school readiness, and examined Alabama's First Class Pre-K programs. Chapter III presented the methodology involved in designing this study. The test instrument design, participant information, research design, data collection procedures, and analysis of the data were introduced. Chapter IV presented the findings for this study. The findings examined demographic information of the participants and

a statistical analysis linked with their responses to the testing instrument. Chapter V will provide a summary, conclusions, implications, and recommendations for further research.

Summary

The findings presented in this study examined the demographic descriptions, rating scale responses, and the statistical analysis for principals participating in this study. The testing instrument, a questionnaire, consisted of an eight item demographic section and 20 questions that included a four point Likert type scale with which to respond. Fifty-four participants were invited to participate in this study with 43 returning the questionnaire. Data were collected over a two month period with a return rate of 80%.

Mean scores were used to examine the rating scaled scores. Principals' responses were consistently in agreement with the rating scale questions. The lowest mean score was received for the survey item response, "when your district provides staff development on the topic of curriculum, how often are there opportunities for staff development that pertain to preschool?" The response yielded a mean of 2.19, indicating districts may need to improve in offering professional development opportunities for staff that pertain to preschool curriculum. The highest mean score received was 3.90 for the survey item, "what level of importance should be devoted to learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.?" This high mean score is similar to earlier studies conducted by (Bredekemp & Copple, 1997; Raver, 2002) where they found that programs designed for young children should be based on what is known about young children; emotional development is just as important for children's future development and school success...children who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress, do less well in school.

The means ranged from 2.86 to 3.74. The lowest overall mean category was the principals' knowledge of early education research. This was probably due to the fact that principals had very little or no knowledge about early brain development research, or knew about the positive long term studies and the impact on student achievement for at risk children according to the HighScope Perry Preschool Study (Schweinhart, et al., 2005) and the Carolina Abecedarian Project (Campbell, et al., 2002).

Findings also revealed that overall, the principals rated the variable "principal's knowledge of early childhood education curriculum" the highest with a mean score of 3.74. The five survey items that make up this category are, "what level of importance should be placed on identification of letters and numbers in early childhood education programs?" (M = 3.76); "what level of importance should be placed on learning to write one's name?" (M = 3.67); "what level of importance should be placed on communication, talking, and expansion of vocabulary?" (M = 3.79); "what level of importance should be devoted to learning school routines, walking in a line, learning to sit quietly, etc.?" (M = 3.62); "what level of importance should be devoted to learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.?" (M = 3.90). The principals rated the variable "principal's beliefs that financial, facility, or human resources impact Pre-K programs" the next highest with a mean score of 3.11. The principals rated the variable "principal's perceptions on the benefits of high quality Pre-K programs and its impact on student achievement for at-risk children" with a mean score of 3.00 indicating that most principals are in agreement that high quality Pre-K programs play a primary role in school readiness.

Independent sample t-tests and Pearson correlation analysis were conducted to determine if there were significant differences and relationships between the principals' perceptions and

their demographic characteristics. The Pearson correlation analysis reflected statistically significant relationships at both the (p < .05, **p < .01) in six of the eight demographic variables-race, years of experience, education level, school classification, total school enrollment, and free/reduced lunch. In addition to the correlation analysis, data were also analyzed using a t-test to further answer research question number four. Participants were grouped according to gender and findings show that there were no statistically significant difference in the perception of the principals according to the 20 survey items. The results indicate that there were statistically significant differences on three of the 20 variables. The variables where significant differences were noted are: As schools strive to improve student achievement, what emphasis is given to the development, continuation or expansion of early education programs to support these efforts? To what extent has Pre-K been discussed with stakeholders, (teachers, parents, community members, school board members, etc.) within your school district? What level of importance should be devoted to learning school routines, walking in a line, learning to sit quietly, etc? The means were generally higher for Black principals compared to White principals.

Conclusion

Based on the results from this study, it may be concluded that Central Alabama elementary principals understand the opportunities Pre-K has to offer. Principals in the five select public school systems in Alabama were knowledgeable of early childhood education curriculum as indicated by the category Pre-K "Curriculum" as the highest ranking category, with a category mean of 3.74. They believed that the level of importance in early education programs should be placed on identification of letters and numbers, learning to write one's name,

expanding vocabulary, and learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.

A review of literature revealed a need to further examine the unique nature of Pre-K programs and effects on students. Ample research has been conducted relative to kindergarten and its effects on young children. However, Pre-K is still a relatively new concept in comparison to kindergarten, and research is limited for principals in Alabama.

Barnett, Lamy, and Jung (2005) found that children who attended state funded Pre-K programs in five states showed 31% more gains in vocabulary compared to children who had not attended the programs. Overwhelming research indicates that school readiness is a key to students' success in today's public schools and this foundation must be set at a very early age. Well-organized early childhood programs are providing this opportunity for over 4 million youngsters across the United States each and every day (U.S. Census Bureau, 2000). The purpose of these programs is to expose four-year-old children to pre-academic material and school like activities with the intention of increasing school related achievement skills and social-behavioral competence when children enter kindergarten (Clifford et al., 2005).

Implications

Pre-K programs are beneficial for children and should be provided by the school district. There are educational as well as long-term benefits to providing Pre-K, resulting in less frequent grade retention and placement in special education programs. Principals were familiar with research and the impact of Pre-K on young children, especially children 'at risk'. However, their knowledge could be expanded and enriched so they can serve as advocates for early childhood education in their community, with stakeholders, and policymakers. Professional development

offerings on early brain research should be considered for district level administrators, principals, and teachers to include the Perry Project Study, Abecedarian Study, etc. Also, provide staff development on the topic of curriculum, that pertain to preschool. Increased knowledge in the area of research can be utilized to advocate for, expand, and implement early childhood education programs in their school districts to help close the achievement gaps.

According to Boykin and Noguera (2011), the achievement gap between lower socioeconomic and racial/ethnic groups of children and their counterparts is evident way before kindergarten with a large number of studies supporting the use of high-quality Pre-K opportunities that can make a significant difference in reducing these gaps.

There are 420 preschools associated with school districts in Alabama. School administrators in Alabama are now faced with the responsibility of recognizing and providing instructional leadership for high-quality early education programs that will produce results to positively impact children and yield academic benefits that can narrow the achievement disproportions among groups of students. Pre-K has proven to be an effective tool in bridging the achievement gap. Although there are 420 preschools associated with Alabama public schools, many children throughout the state are not being served and possibly they are more likely the neediest at-risk children.

The Alabama School Readiness Alliance formed a Pre-K Task Force in 2011 to identify short term and long term strategies to increase investments in high-quality, voluntary Pre-K in Alabama. The members of the task force included: business leaders, children's advocates, educators and philanthropists pushing to expand First Class Pre-K in Alabama. In 2012, the Pre-K Task Force developed recommendations that outlined a vision for expanding Alabama's high-quality, voluntary First Class Pre-K program so that all families have the opportunity to enroll

their four-year-olds. To accomplish this goal, the Pre-K Task Force met in December 2014 to revise the recommendations for the 2015 Alabama Legislative Session to increasing the total level of state investments in First Class Pre-K by \$125 million over a ten-year period, beginning in 2013–2014 and culminating in 2022–2023 (Alabama School Readiness Alliance Pre-K Task Force, 2015).

Recommendations for Further Research

Based on the results of the study, there is a need for further research in many areas regarding how administrators view the benefits of early childhood education programs and its impact for at-risk children. It is hoped that through continued research, data will become available to show that universal pre-kindergarten programs are becoming more and more popular and several states will continue to see increases in the numbers of students enrolling in pre-kindergarten programs, which in turn will show an increase in achievement skills and social-behavioral competence as children enter kindergarten.

Recommendations for further research include the following:

- Additional research examining principals' perceptions of pre-kindergarten programs should be conducted using a much larger number of participants.
- Research examining teachers' perceptions of pre-kindergarten programs because teachers work directly with the students to prepare them for kindergarten.
- Research examining the impact of pre-kindergarten programs on school readiness for students who attended Pre-K and students who did not attend Pre-K. Researchers should look at student data to determine students' progress at the end of kindergarten.
- A comparative study of principals' perceptions in Alabama versus principals'
 perceptions in surrounding states (i.e. Florida, Georgia, Mississippi, Tennessee) to

determine commonalities that could be used to guide education administration requirements and preschool on a national level.

- Policy decisions to ensure funding for Pre-K programming expansions for all children.
- Research examining the importance of Professional Development for superintendent,
 principals, and teachers about the positive long term early childhood studies and its
 impact on student achievement for at risk children.
- School districts should provide staff development opportunities on the topic of curriculum that pertain to preschool.

REFERENCES

- A Nation Still At-Risk. (1998). ERIC Identifier: ED429988. Publication Date: 1999-04-00. ERIC Clearinghouse on Assessment and Evaluation College Park MD Retrieved on January 20, 2012, from http://www.eric.ed.gov/PDFS/ED429988.pdf
- Alabama Department of Children's Affairs Office of School Readiness, 2010. Alabama

 Developmental Standards for Preschool Children, Retrieved on February 1, 2015, from

 http://www.children.alabama.gov/uploadedFiles-File/Developmental Standards handbook.pdf
- Alabama School Readiness Alliance Pre-K Task Force, 2015. Recommendations for the Expansion of First Class Pre-K in Alabama. Retrieved on February 1, 2015, from http://www.alabamaschoolreadiness.org/uploaded
 http://www.alabamaschoolreadiness.org/uploaded
 Files/File/ASRA_Legislative_FullRecs2015_webRev3.pdf
- Anderson-Moore, K., Redd, Z., Burkhauser, M., Mbwana, K., & Collins, A. (2009, April).

 Children in poverty: Trends, consequences, and policy options. Retrieved on January 20, 2012, from http://www.childtrends.org/files/child_trends-2009_04_07_rb_childreninpoverty.pdf
- Andrews, S. P., & Slate, J. R. (2002). Public and private prekindergarten programs: A comparison of student readiness. *Educational Research Quarterly*, 25(3), 59.
- Augustyniak, K.M., Cook-Cottone, C.P., & Calabrese, N. (2004). The predictive validity of the Phelps Kindergarten Readiness Scale. *Psychology in the Schools, 41,* 509-516.

- Barnett, W.S. (2004). Maximizing the returns from prekindergarten education. *Proceedings of the Conferene on Education and Economic Development*. Cleveland, Ohio: Federal Reserve Bank of Cleveland.
- Barnett, W.S., (2008). Preschool education and its lasting effects: Research and policy implications. National Institute for Early Education Research. Retrieved on 1/20/12 from: http://nieer.org/resources/research/PrechoolLastingEffects.pdf
- Barnett, W.S., Ephstein, D. J., Carolan, M. E., Fitzgerald, J., Ackerman, D. J., & Friedman, H. (2010). Quality standards. *The State of Preschool 2010*.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011). *The state of preschool 2011: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W.S., Hustedt, J.T., Friedman, A.H., Boyd, J.S., Ainsworth, P. (2007). *The state of preschool 2007: State preschool yearbook.* National Institute for Early Education Research: Rutgers University.
- Barnett, W. S., Hustedt, J. T., Hawkinson, L. E., & Robin, K. B. (2006). *The state of preschool 2006: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W.S., Hustedt, J.T., Robin, K.B., & Schulman, K.L. (2005). *The state of preschool:* 2005 state preschool yearbook. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W.S., Jung, K., Wong, V., Cook, T., & Lamy, C. (2007b). *Effects of five state*prekindergarten programs on early learning. Rutgers University, NJ: The National
 Institute for Early Education Research.

- Barnett, W. S., Lamy, C., & Jung, K. (2005). *The effects of state prekindergarten programs on young children's school readiness in five states*. Rutgers University: National Institute for Early Education Research.
- Barnett, W.S., & Masse, L.N. (2007). Comparative benefit-cost analysis of the Abecedarian program and its policy implications. *Economics of Education Review*, *26*, 113-125.
- Becker, G. S., & Tomes, N. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, 4, S1-S39.
- Belfield, C. R., Milagros, N., Barnett, S., & Schweinart, L. (2006). The High Scope Perry Preschool Program: Cost-benefit analysis using data from the age-40 follow up. *Journal of Human Resources*, 41(1), 162–190.
- Besharov, D. J., & Call, D. M. (2008). The new kindergarten: The case for universal prekindergarten isn"t as strong as it seems. The Wilson Quarterly, 28-35.
- Boden, M. A. (1979). Jean Piaget. New York: The Viking Press.
- Boethel, M. (2004). *Readiness school, family, and community connections* (Annual Synthesis Report). Austin, TX: Southwest Educational Development Laboratory.
- Bowman, B. T., Donovan, M. S., & Burns, M. S. (Eds.). (2001). *Eager to learn: Educating our preschoolers*. Washington DC: National Academy Press.
- Boykin, A. W., & Noguera, P. (2011). Creating the opportunity to learn: Moving from research to practice to close the achievement gap. Alexandria, VA: ASCD.
- Bredekamp, S., & Copple, C. (Eds). (1997). *Developmentally appropriate practice in early childhood programs* (rev. ed.). Washington, DC: National Association for the Education of Young Children.

- Brooks-Gunn, J., & Duncan, G. (1997, Summer-Autumn). The effects of poverty on children.

 The Future of Children, 7(2), 55–71. Retrieved on January 12, 2012, from

 http://www.princeton.edu/futureofchildren/publications/docs/07_02_03.pdf
- Burchinal, M. R., Roberts, J. E., Riggins, R. Jr., Zeisel, S. A., Neebe, E., & Bryant, D. (2000).

 Relating quality of center-based child care to early cognitive and language development longitudinally. *Child Development*, 71, 338–357. Retrieved from http://www.cckm.ca/Childcare/pdf/Burchinal2000.pdf
- Burger, K. (2010). How does early childhood care and education affect cognitive development?

 An international review of the effects of early interventions for children from different social backgrounds. *Early Childhood Research Quarterly*, 25, 140–165.
- Campbell, F. A., Ramey, C., Pungello, E. P., Sparling, J. J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian project. *Applied Developmental Science*, 6, 42–57.
- Chien, N. C., Howes, C., Burchinal, M., Pianta, R. C., Ritchie, S., Bryant, D. M., ...Barbarin,
 O. A. (2010). Children's classroom engagement and school readiness gains in
 prekindergarten. *Child Development*, 81(5), 1534–1549.
- Children Now. (2009, May). Kindergarten readiness data: Improving children's success in school. Retrieved January 4, 2012 from Education Policy Brief:

 http://www.childrennow.org/uploads/documents/early_learning_brief_052009.pdf
- Clifford, R. M., Barbarin, O., Chang, F., Early, D., Bryant, D., Howes, C., Burchinal, M., & Pianta, R. (2005). What is pre-kindergarten? Characteristics of public pre-kindergarten programs. *Applied Developmental Science*, *9*(3), 127.

- Coley, Richard J. (2002). *An uneven start: Indicators of inequality in school readiness*. ETS Policy Information Report. Princeton, NJ: Educational Testing Service.
- Collins, Molly F., & Dennis, Sarah E. (2009). Targeting oral language development in high-risk preschoolers. *NHSA Dialog*, *12*(3), 245-256.
- Copple, C., & Bredekamp, S. (2009b). *Developmentally appropriate practice in early childhood* programs serving children from birth through age 8 (3rd ed.). Washington, DC: National Association for the Education of Young Children.
- Creswell, J. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J. W. (2005). Educational research: Planning conducting, and evaluating quantitative and qualitative research (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Daily, S., Burkhauser, M., & Halle, T. (2011), School readiness practices in the United States.

 Nat Civic Rev, 100: 21–24. doi: 10.1002/ncr.20080.
- Day, B., & Yarbrough, T. (1998, February 6–8). *The state of early childhood programs in America: Challenges for the new millennium*. Paper presented at the Forum on Early Childhood Science, Mathematics, and Technology Education. Washington, DC.
- Dearing, E., & Taylor, B. A. (2007). Home improvements: Within-family associations between income and the quality of children's home environments. *Journal of Applied Developmental Psychology*, 28, 427–444.
- DellaMattera, J. (2010). No Preschooler Left Behind: Preschool Policies in the NCLB World. *Journal of Educational Research & Policy Studies, 10*(1), 35-49.

- Denton, K. and West, J. (2002). *Children's Reading and Mathematics Achievement in Kindergarten and First Grade* (NCES 2002(125). Washington, DC: National Center for Education Statistics.
- DePanfilis, D. (2006). Children's Bureau, Office on Child Abuse and Neglect. Retrieved on January 24, 2012, from http://www.childwelfare.gov/pubs/usermanuals/neglect/neglect.pdf
- Department of Children's Affairs Office of School Readiness (2012). *Alabama Developmental Standards for Preschool Children*. Retrieved on January 6, 2014, from www.children.alabama.gov
- DiPietro, J. A. (2000). Baby and the brain: Advances in child development. *Annual Review of Public Health*, *21*, 455-471.
- Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., et al. (2007). School readiness and later achievement. *Developmental Psychology*, *43*, 1428–1446. doi: 10.1037/0012-1649.43.6.1428.
- Education Week. (2011). Achievement gap. Retrieved on December 1, 2011, from http://www.edweek.org/ew/issues/achievement-gap/
- Espinosa, L. (2002). *High quality preschool: Why we need it and what it looks like*. Washington, DC: National Institute for Early Education Research.
- Evans, G. W. (2004). The environment of childhood poverty. *American Psychologist*, 59, 77–92.
- Farkas, G., & Hibel, J. (2008). Being unready for school: Factors affecting risk and resilience. In A. Booth & A. Crouter (Eds.), Disparities in school readiness (pp.3-30). New York, NY: Taylor & Francis Group, LLC.

- Florendo, J.M. (2012). *Nebraska Public School Administrators' Perceptions of Preschool Education*. http://digitalcommons.unl.edu/cehsedaddiss/112/
- Gallagher, J. J., Clifford, R. M., & Maxwell, K. (2004). Getting from here to there: To an ideal early preschool system. *Early Childhood Research & Practice*, 6. Retrieved March 16, 2006 from www.ecrp.uiuc.edu
- Galinsky, E. (2006). The economic benefits of high-quality early childhood programs: What makes the difference? Families and Work Institute for The Committee for Economic Development with Funding from the Mailman Family Foundation.
- Garces, E., Thomas, D., & Currie, J. (2000). Longer-Term Effects of Head Start. *American Economic Review* 92(4), 999-1012.
- Gay, L., & Airasain, P. (1999). Educational research: Competencies for analysis and applications. New Jersey: Prentice-Hall.
- Gestwicki, C. (2007). *Developmentally appropriate practice: Curriculum and development in early education* (3rd ed.). Clifton Park, NY: Thomson Delmar Learning.
- Gilliam, W.S. (2005). Prekindergarteners left behind: Expulsion rates in state prekindergarten programs. *Policy Brief No. 3*. New York, NY: Foundation for Child Development.
- Gomby, D.S., Larner, M.B., Stevenson, C.S., Lewit, E.M., & Behrman, R.E. (1995). Long-term outcomes of early childhood programs: Analysis and recommendations. *The Future of Children, 5,* 6-24.
- Gormley, W. T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41(6), 872–884.
- Gredler, G.R. (1992). School readiness: Assessment and educational issues. Brandon, VT: Clinical Psychology.

- Great Schools. (n. d.) Retrieved on August 15, 2012 from http://www.greatschools.org/definitions/or/nclb.html
- Hart, B., & Risley, T. R. (1995). *Meaningful Differences in the everyday experiences of young American children*. Baltimore: Paul H. Brookes Publishing Co.
- Hatch, J. A. (2002). Accountability shovedown: Resisting the standards movement in early childhood education. *Phi Delta Kappan*, *83*, 457–462.
- Heckman, J.J., Masterov, D.V. (2004). *The productivity argment for investing in young children*(Working Paper No. 5). Chicago, IL. Invest in kids Working Group, Committee for Economic Development.
- Hertzman, C., & Power, C. (2006). A life course approach to health, and human development. In J. Heymann, C. Hertzman, L. Barer, & R. Evans (Eds.), *Healthier societies: From analysis to action* (pp. 83–106). Oxford: Oxford University Press.
- Jencks, C., & Phillips, M. (1998). America's next achievement test: Closing the Black-White test score gap. *The American Prospect*, *9*(40).
- Jensen, E. (2009). Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it. Alexandria, VA: ASCD. Retrieved from http://www.ascd.org/publications/books/109074.aspx
- Johnson, J. O. (2005, November). *Who's minding the kids? Child care arrangements: Winter 2002*. U.S. Department of Commerce Economics and Statistics Administration. Retrieved from U.S. Census Bureau Web site: http://www.census/gov/prod/2005pubs/p70-101.pdf
- Kagan, S.L. (1992). Ready or not! Collaboration is fulcrum on which readiness goal rests. *The School Administrator*, 49, 14-18.

- Karoly, L. A., & Bigelow, J. H. (2005). *The economics of investing in universal preschool education in California*. Santa Monica, CA: RAND Corp.
- Kaurtz, K. (2008). Learning from others: State efforts to expand services and build systems of early care and education. In A. R. Tarlov & M. C. Debbink (Eds.), *Investing in early childhood development* (pp. 85–112). New York: Palgrave Macmillan.
- Kostelnik, M., & Grady, M. (2009). *Getting it right from the start: The principal's guide to Pre- K.* Thousand Oaks, CA: Corwin & National Association of Elementary School Principals.
- Lamy, C., Barnett, W. S., & Jung, K. (2005). *The effects of Oklahoma's early childhood four-year-old program on young children's school readiness*. New Brunswick: Rutgers, The State University of New Jersey; National Institute for Early Education Research.
- Landry, S. H., Smith, K. E., Swank, P. R., Assel, M. A., & Vellet, S. (2001). Does early responsive parenting have a special importance for children's development or is consistency across early childhood necessary? *Developmental Psychology*, *37*, 387–403.
- Laosa, L. (2005). Effects of Preschool on Educational Achievement. NIEER Working Paper, (p. 2)
- Lazarus, P. J., & Ortega, P. (2007). Universal pre-kindergarten in conjunction with universal screenings: An antidote to grade retention. *Journal of Education Research and Policy Studies*, 7(1), 54–71.
- Lin, H. L., Lawrence, F. R., & Gorrell, J. (2003). Kindergarten teachers' views of children's readiness for school. *Early Childhood Research Quarterly*, 18, 225–237.
- Lips, D., & Feinberg, E. (2007, March 23). *The administrative burden of No Child Left Behind*.

 Retrieved from http://www.heritage.org/research/reports/2007/03/theadministrative-burden-of-no-child left-behind

- Ludwig, J., & Miller, D.L. (2007). Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity. *Quarterly Journal of Economics*, 122(10, 159-208.
- Magnuson, K. A., Meyers, M., Ruhm, C., & Waldfogel, J. (2004). Inequality in preschool education and school readiness. *American Educational Research Journal*, 41, 115–157.
- Masse, L.N., & Barnett, W.S. (2002). A benefit-cost analysis of the Abecedarian Early

 Childhood Intervention. New Brunswick, NJ: National Institute for Early Education

 Research.
- McCleod, S. (2009). *Jean Piaget*. Retrieved August 9, 2011 from http://www.simplypsychology.org/piaget.html
- McGill-Franzen, A. (1993). Shaping the preschool agenda: Early literacy, public policy, and professional beliefs. Albany, NY: State University of New York Press.
- Mead, S. (2008). A Foundation for Success High Quality Pre-K Programs Can Narrow Achievement Gap sand Students' Chances in Elementary School. *American School Board Journal, November 2008, 195*(11), 25-29.
- Meisels, S.J. (1992). Doing harm by doing good: Iatrogenic effects of early childhood enrollment and promotion policies. *Early Childhood Research Quarterly*, *7*, 155-174.
- Melhuish, E. C., Sylvia, K., Sammons, P., Siraj-Blatchford, I., Taggart, B., Phan, M. B., & Malin A. (2008). The early years: Preschool influences on mathematics achievement. *Science*, *321*, 1161–1162.
- Messick, S. (1994). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. Princeton, NJ: Educational Testing Service.

- Mitchell, A., Seligson, M., & Marx, F. (1989). *Early childhood programs and the public schools: Between promise and practice*. Dover, MA: Auburn House.
- Molfese, V. J., Modglin, A. A., Beswick, J. L., Neamon, J. D., Berg, S. A., & Berg, J. (2006).

 Letter knowledge, phonological processing, and print knowledge: Skill development in nonreading preschool children. *Journal of Learning Disabilities*, *39*, 296–305.
- Mooney, C. G. (2000). *Theories of childhood: An introduction to Dewey, Montessori, Erikson, Piaget, and Vygotsky*. St. Paul, MN: Redleaf.
- National Association for the Education of Young Children (NAEYC). (n.d.). A call for excellence in early childhood education. Retrieved on January 5, 2012 from http://www.naeyc.org/policy/excellence
- National Association for the Education of Young Children (NAEYC). (2009). Developmentally appropriate practice in early childhood programs serving children from birth through age 8: A position statement from the National Association for the Education of Young Children. Retrieved on 11/14/11 from:

 http://www.naeyc.org/files/naeyc/file/positions/position%20statement%20Web.pdf
- National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education. (2002). *Early learning standards: Creating the conditions for success*. Retrieved from http://www.naeyc.org/about/positions/early_learning_standards.asp
- National Center for Children in Poverty & Abt Associates. (2008). Proceedings from a Working

 Meeting on Recent School Readiness Research: Guiding the Synthesis of Early

 Childhood Research. Washington, DC: Retrieved from

 http://aspe.hhs.gov/hsp/10/SchoolReadiness/index.pdf

- National Center for Education Statistics. (2005). *Digest of Education Statistics2005, Table 356* at http://www.ed.gov/programs/digest/d05/tables/dt05-356asp.
- Nation Education Goals Panel. (1997). *The National Education Goals report: Building a nation of learners, 1997*. Washington, DC: U.S. Government Printing Office.
- National Education Goals Panel (NEGP). (1998). *The 1998 national education goals report:*Building a nation of learners. Washington, DC: National Education Goals Panel.

 (www.negp.gov).
- National Education Goals Panel. (2002, March). *Building a nation of learners*. Retrieved July 11, 2013, from http://govinfo.library.unt.edu/negp/page3-1.htm
- National Governor's Association Center for Best Practices. (n.d.). Closing the achievement gap.

 Retrieved on January 25, 2012, from http://www.subnet.nga.org/educlear/achievement/
- National Institute for Early Education Research. (2009). *The state of preschool 2009: State preschool yearbook.* New Brunswick, NJ: Rutgers Graduate School of Education.
- National Institute of Child Health and Human Development Early Child Care Research Network.

 (1998). *The NICHD study of early child care*. Retrieved from

 http://www.nichd.nih.gov/publications/pubs/early_child_care.html
- National Governors' Association. (1992). Every child ready for school: Report of the Action Team on School Readiness. Washington, DC: Author.
- National Journal.com, The Next American Education 2012/Education.
- National Reading Panel. (2000). Teaching children to read: Executive summary. Washington DC: Author.
- National Research Council. (2001). *Tools for growing the NSDC standards*. Oxford, OH: Author.

- Neuman, S. B. (2003). From rhetoric to reality: The case for high-quality compensatory prekindergarten programs. *Phi Delta Kappan, 85*(4), 286–291. Retrieved from http://www.kckps.org/teach_learn/pdf/group1/t_15.pdf
- Raver, C. C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. Social Policy Report, 16(3), 3–24.
- Reid, M. J., & Webster-Stratton, C. (2004). Strengthening social emotional competence in young children. *Infants and Young Children: An Interdisciplinary Journal of Special Care Practices*, 17(2), 96–114.
- Reynolds, A., Temple, J., Robertson, D., & Mann, E. (2001). *Age 21 of the cost benefit analysis of the Title I Chicago child-parent center program*. Chicago: Chicago Public Schools
- Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. Journal of the American Medical Association, 285(18), 2339 2346.
- Reynolds, A. J., Judy, A., Temple, D., Robertson, L., & Mann, E. A. (2002). Age 21 cost-benefit analysis of the Title I Chicago child-parent centers. *Educational Evaluation and Policy Analysis*, 24(4), 267–303.
- Rolnick, A., & Grunewald, R. (2003, March). Early childhood development: Economic development with a high public return. *Minnesota Fedgazette*.
- Rose, E. (2010). The promise of preschool: From head start to universal prekindergarten. New York, NY: Oxford University Press, Inc.

- Rouse, C.E., Brooks-Gunn, J., & McLanahan, S. (2005). The future of children. *Project Muse,* 14(1), 5-14. Retrieved from: http://muse.jhu.edu/journals/foc/summary/v015/15.1rouse.html
- Sadowski, M. (2006). The school readiness gap. Harvard Education Letter, 22(4). Retrieved from http://www.hepg.org/hel/article/307
- Schweinhart (2003, April). Benefits, Costs, and Explanation of the High/Scope Perry

 Preschool Program. Paper presented at the Meeting of the Society for Research
 in Child Development. Tampa, Florida.
- Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005).

 Lifetime effects: The High/Scope Perry Preschool study through age 40. (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Press.
- Schumacher, R., Irish, K., & Lombardi, J. (2003). *Meeting great expectations: Integrating early education program standards in childcare*. Washington, DC: Center for Law and Social Policy. Available: www.clasp.org
- Scott-Little, C., Kagan, S.L., & Frelow, V.S.(2006). Conceptualization of readiness and the content of early learning standards: The intersection of policy and research? *Early Childhood Research Quarterly*, 21, 153-173.
- Shonkoff, J.P., & Phillips, D.A. (Eds.) (2000). From neurons to neighborhoods: The science of early childhood programs. Washington, DC: National Academy Press.
- Southern Regional Education Board. (1992). *Readiness for school: The early childhood challenge*. Atlanta, GA: Author.
- Spodek, B., & Saracho, O.N. (1994). *Right from the start: Teaching children ages three to eight.*Boston, MA: Allyn and Bacon.

- Stiggens, R. (2008). Assessment for learning, the achievement gap, and truly effective schools.

 Presented at the Educational Testing Service and College Board Conference, Portland,

 OR.
- Temple, J.A., & Reynolds, A.J. (2007). Benefits and costs of investments in preschool education: Evidence from the Child-Parent Centers and related programs. *Economics of Education Review*, *26*, 126-144.
- The PARCA Perspective, October 2013 pg.47

 http://www.archive.constantcontact.com/fs111/11063941894189560/archive/1115478890

 046.html.
- The White House. (2002). *Fact sheet: No child left behind*. Retrieved from http://www.whitehouse.gov/infocus/compassionate/education.html
- The White House. (n.d.) *Good start, grow start: The Bush administration's early childhood initiative*. Retrieved from http://www.whitehouse.gov/infocus/earlychildhood/sect7.html
- U.S. Census Bureau. (2000). Enrollment status of the population 3 years old and over, by age
- U.S. Department of Education. (1983). A nation at risk. Washington DC: Author.
- U.S. Department of Education. (2002a). No Child Left Behind: A desktop reference. Retrieved on January 21, 2012 from:
 - http://www.ed.gov/admins/lead/account/nclbreference/reference.pdf
- U.S. Department of Education Budget Service and The Nation's Report Card, Fourth Grade Reading (2000). Retrieved on January 21, 2012 from:
 - http://www.nces.ed.gov/nationsreportcard/pdf/main2000/200149.pdf

- U.S. Department of Education Budget Service and The Nation's Report Card. (2002b). Why 'No Child Left Behind' is important to America. Retrieved on January 23, 2012, from http://www2.ed.gov/nclb/overview/importance/edlite-index.html
- U.S. Department of Education, National Center for Education Statistics. (2007). *The condition of education 2007* (NCES 2007-064). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, National Center for Education Statistics. (2010). Digest of Education Statistics 2010. Retrieved on August 15, 2012, from: http://nces.ed.gov/pubs2011/2011015.pdf
- Vanderheyden, A.M., Witt, J.C., Naquin, G., & Noell, G. (2001). The reliability and validity of Curriculum-Based Measurement readiness probes for kindergarten students. *School Pschology Review*, 30, 363-382.
- Votruba-Drzal, E. (2003). Income changes and cognitive stimulation in young children's home learning environments. *Journal of Marriage and Family*, *65*, 341–355.
- Walberg, H. (2010). Advancing student achievement. Hoover Institution Press Publication,
 Leland Standford Junior University. Retrieved on January 23, 2012, from
 http://www2.ed.gov/pubs/NatAtRisk/risk.html
- Wesley, P.W., & Buysse, V. (2003). Making meaning of school readiness in schools and communities. *Early Childhood Research Quarterly*, 18(3), 351–375.
- West, J., Denton, K., & Reaney, L. M. (2001). The kindergarten year: Findings from the Early Childhood Longitudinal Study, kindergarten class of 1998–1999 (Publication No. NCES2001-023). Washington, DC: Department of Education, National Center for Education Statistics.

- West, J., Denton, K., & Reaney, L. (2001). *The kindergarten year* (NCES 2002/023) [Electronic version]. Washington, DC: National Center for Education Statistics.
- Wildenger, L., McIntyre, L., Fiese, B., & Eckert, T. (2008). Children's daily routines during kindergarten transition. *Early Childhood Education Journal*, *36*(1), 69–74. doi:10.1007/s 10643-008-0255-2.
- Yang, Y., Cao, J., Xiong, W., Zhang, J., Zhou, Q., & Wei, H. (2003). Both stress experience and age determine the impairment or enhancement effect of stress on spatial memory retrieval. *Journal of Endocrinology*, 178(1), 45–54. Retrieved on January 20, 2012, from http://joe.endocrinologyjournals.org/content/178/1/45.full.pdf+html
- Yeung, W. J., Linver, M. R., & Brooks-Gunn, J. (2002). How money matters for young children's development: Parental investment and family processes. *Child Development*, 73, 1861–1879.
- Zaslow, M., Calkins, J., Halle, T., Zaff, J., & Margie, N. (2000). *Background for Community-Level Work on School Readiness: A Review of Definitions*,
- Zill, N., Resnick, G., Kim, K., Hubbell McKey, R., Clark, C., Shefali, P., et al. (2001). *Head Start FACES: Longitidinal findings on program performance, Third progress report.*Washington, DC: US Department of Health and Human Services.

APPENDICES

APPENDIX A

PRE-K PROGRAMS IN CENTRAL ALABAMA SCHOOLS SURVEY

Pre-K Programs in Central Alabama Schools Survey

Please circle the appropriate response:											
1. Gen	der?	Male	Female								
2. Rac	e/Ethnic Origi	n?									
European American/White			African American/Black			Hispanic American					
Asian American			Native American			Other:					
3. Years of Experience as a Principal?											
	0-5	6-10		11-15		16-20	21 or above				
4. Lev	4. Level of Education- Highest Degree Earned?										
	Master's		Education Specialist			Doctorate					
	Other			(please indi	cate)						
5. Is y e	our school clas	sified as rural	or non-rural	?							
	Rural	Non-Rural									
6. Sch	ool Enrollment	?									
	0-300	301-500	501-700	701-900	901-12	00 1201 c	or more				
7. Free/Reduced lunch rate at your school?											
Below 35%			35-55% Above 55%			3					
8. Is ye	our school a Ti	tle I school?									
	Yes		No								
Pre-K I	Pre-K Programs in Central Alabama Schools Survey Page 1										

Please circle the response that most closely represents the experience at your school. Respond based on the following scale of 1-4, with 1 = None; 2 = A Little; 3 = Some; 4 = A Lot

	Questions	None	A Little	Some	A Lot
9.	What level of importance is placed on early childhood education in your school district?	1	2	3	4
10.	As schools strive to improve student achievement, what emphasis is given to the development, continuation or expansion of early education programs to support these efforts?	1	2	3	4
11.	As more preschools are implemented in school districts throughout Alabama, to what extent have there been conversations about implementing or increasing preschool programs in your school district over the past nine months?	1	2	3	4
12.	To what extent has Pre-K been discussed with stakeholders, (teachers, parents, community members, school board members, etc.) within your school district?	1	2	3	4
13.	Are educators with endorsements in Pre-K specifically recruited for kindergarten through second grade openings?	1	2	3	4
14.	When your district provides staff development on the topic of curriculum, how often are there opportunities for staff development that pertain to preschool?	1	2	3	4
15.	What do you know about early brain development research?	1	2	3	4
16.	What do you know about the positive long term early childhood education studies and the impact on student achievement for at risk children (Perry Project Study, Abecedarian Study, etc.)?	1	2	3	4
17.	What do you know about the cost benefits of providing Pre-K programs vs. later intervention programs such as special education services, self-supporting employment, etc.?	1	2	3	4
18.	What do you know about the long term academic achievement benefits for at risk children who attend high quality early childhood education programs?	1	2	3	4
19.	What level of importance should be placed on identification of letters and numbers in early childhood education programs?	1	2	3	4
20.	What level of importance should be placed on learning to write one's name?	1	2	3	4
21.	What level of importance should be placed on communication, talking, and expansion of vocabulary?	1	2	3	4
22.	What level of importance should be devoted to learning school routines, walking in a line, learning to sit quietly, etc.?	1	2	3	4
23.	What level of importance should be devoted to learning social and emotional skills, such as getting along with others, making friends, learning how to manage one's feelings, etc.?	. 1	2	3	4
24.	To what extent do financial resources have in your school district's ability to offer an early childhood education program?	1	2	3	4
25.	To what extent do adequate building facilities have in your school district's ability to offer a Pre-K program?	1	2	3	4
26.	To what extent does accessibility to teacher resources, such as certified early childhood education teachers, have in your school district's ability to offer a Pre-K program?	1	2	3	4
27.	To what extent does offering family support and or parent education programs have in your school district's ability to offer an early childhood education program?	1	2	3	4
28.	To what extent do other community resources, such as community Head Start programs and existing community preschool programs, have in your school district's ability or choice to offer a Pre-K program?	1	2	3	4

Pre-K Programs in Central Alabama Schools Survey

APPENDIX B SUPERINTENDENT PERMISSION LETTER

MACON COUNTY BOARD OF EDUCATION

Jacqueline A. Brooks, Ed.D. Superintendent of Education



Theodore Samuel, President Elnora Smith-Love, Vice President Katy Campbell Mary H. Hooks Karey Thompson

March 31, 2014

Melissa Tier Williams 1033 Autumn Ridge Road Montgomery, Alabama 36117

Dear Ms. Williams:

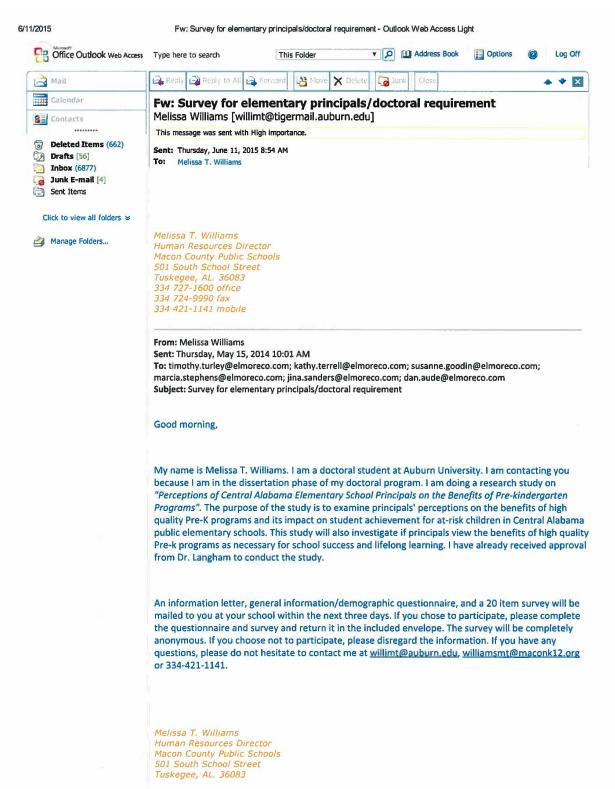
You have been granted permission to contact potential participants and collect data for your proposal entitled "Perceptions of Central Alabama Elementary School Principals on the Benefits of Pre-kindergarten Programs". Please provide a copy of the IRB –approved, stamped consent document upon receipt. I look forward to you sharing the published results of your findings.

Sincerely yours,

Jacqueline A. Brooks, EdD Superintendent of Education

501 South School Street • Post Office Box 830090 • Tuskegee, Alabama 36083-0090 • (334) 727-1600 • Fax: (334) 724-9990

APPENDIX C ELECTRONIC LETTER TO ELEMENTARY PRINCIPALS



APPENDIX D INFORMATION LETTER



The Aubum University Institutional Review Board has approved this spoument for use from 4/30/14 to 4/29/17

AUBURN UNIVERSITY

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

INFORMATION LETTER for a Research Study entitled

Perceptions of Central Alabama Elementary School Principals on the Benefits of Pre-kindergarten Programs

You are invited to participate in a research study to examine principals' perceptions on the benefits of high quality Pre-k programs and its impact on student achievement for at-risk children in Central Alabama public elementary schools. This study is being conducted by Melissa T. Williams, under the supervision of Dr. Maria M. Witte, Associate Professor in the Auburn University Department of Educational Foundations, Leadership and Technology.

You were selected as a possible participant because you are an elementary school principal and your district has a unique background and characteristics. If you decide to participate, you are asked to complete a demographic/general information questionnaire and a 20 item survey. It will take about 6-10 minutes to complete the questionnaire and survey. Once completed, please place the questionnaire and survey in the provided stamped envelope. Seal the envelope and place it in the mail. To maintain your anonymity, the researcher's name and address is written on the envelope as both the sender and addressee.

Your participation in completing the questionnaire and survey is strictly voluntary. I assure you that all of the data collected from you for my study will remain completely anonymous. The information obtained from this study will be helpful in gaining information on early education programs in Central Alabama schools as we work together to provide the best education for our students in our state I cannot promise you that you will receive any or all of the benefits described. As the primary investigator, I can assure you that there will be no personal expenses incurred from this study.

4036 Haley Center, Auburn, AL 3684-5221; Telephone: 334-844-4460: Fax: 334-844-3072

www.auburn.edu

Page 1 of 2

3.										
	a.	n. Does the research involve any special populations? Type YES Type NO Minors (under age 19)								
		YES V NO				Pregnant women, fetuses, or any products of conception				
					NO	Prisoners or Wards				
			YES		MADE 10					
	☐ YES ✓ NO				IVO	Individuals with compromised autonomy and/or decisional capacity				
	b.	b. Does the research pose more than minimal risk to participants? YES NO Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. 42 CFR 46.102(i)								
	c. Does the study involve any of the following?									
		YES NO			Procedures subject to FDA Regulation Ex. Drugs, biological products, medical devices, etc.					
	YES V NO		NO	Use of school records of identifiable students or information from instructors about						
	, £					specific students				
			YES	V	NO	Protected health or medical information when there is a direct or indirect link that could				
						identify the participant				
			YES	\checkmark	NO	Collection of sensitive aspects of the participant's own behavior, such as illegal				
						conduct, drug use, sexual behavior or use of alcohol				
			YES	V	NO	Deception of participants				
	If you checked "YES" to any response in Question #3 STOP. It is likely that your study does not meet the "EXEMPT" requirements. Please complete a PROTOCOL FORM for Expedited or Full Board Review. You may contact IRB Administration for more information. (Phone: 334-844-5966 or Email: <u>IRBAdmin@auburn.edu</u>)									
4.	PRO a.	OJECT Subje				e, include age, special population characteristics, etc.)				
		As the primary researcher, I have chosen to survey all 50 Elementary Principals from Central Alabama in Autauga, Elmore, Lowndes, Macon, and Montgomery County school districts as the total population for my study.								
	 Describe, <u>step by step</u>, all procedures and methods that will be used to <u>consent</u> participants. N/A (Existing data will be used) 									
		Each Superintendent of the school distircts will be emailed a letter requesting approval to conduct my study within their school district. Once approval has been granted by the Superintendents, a letter of consent to participate will be emailed to each Principal explainithe purpose of the study.								
						2 of 3				

 Brief summary of project. (Include the research question(s) and a brief description of the methodology, including recruitment and how data will be collected and protected.)

The purpose of this study will be to examine principals' perceptions on the benefits of high quality Pre-k programs and its impact on student achievement for at-risk children in Central Alabama public elementary schools. The study will investigate if principals view the benefits of high quality Pre-k programs as necessary for school success and lifelong learning. The perceptions of school level administrators are also important because they play a pivotal role in advocating the need for universal Pre-k programs in ways that will support increased funding by states, and in turn, the quality of early educational opportunities offered to all students. For the purpose of the this study, demographic data will be gathered from each principal so common group data, such as rural and non-rural disaggregated data can be used to get better perspective of the results. The research for this study was framed around the following questions:

- 1. What are Alabama elementary principals' perception about research linking children in high-quality Pre-k programs and later school achievement?
- 2. What are Alabama principals' perception about research-based high quality standards and curriculum in Pre-k programs?
- 3. To what extent do Alabama elementary principals believe financial, facility, or human resources impact Pre-k programs in Alabama?
- 4. Is there a statistically significant difference between principals' perceptions of the benefits of Pre-k programs when grouped according to gender, ethnicity, qualifications, number of certifications, and years of experience?

The data will be collected using a mixed methods research design. The survey instrument will be hand delivered to each participant at the district principal meetings and collected by researcher. The secondary delivery method will be hand delivered to principals at each school site and collected by researcher.

d.	□ w	laiver of Consent	Including existing	g de-identified data) i (Use of Information L	ne criteria for the waiver.	
Sig	advertise nature of Ir nature of F			ents, Information Lette nission letters/site auti USC USC USC USC USC USC USC USC USC USC	April 17/2014	

3 of 3

APPENDIX E

DISTRICT'S APPROVAL LETTER TO CONDUCT THE STUDY

April 22, 2014

Mrs. Margaret Allen, Superintendent Montgomery Public Schools P.O. Box 1991 Montgomery, Alabama 36102-1991

Greetings Mrs. Allen:

My name is Melissa T. Williams. I am a doctoral student at Auburn University. I am also the human resources director in the Macon County Public Schools district. I am writing this letter to seek permission to conduct a study entitled *Perceptions of Central Alabama Elementary School Principals on the Benefits of Pre-kindergarten Programs* in your school district. The purpose of this study is to examine principals' perceptions on the benefits of high quality Pre-k programs and its impact on student achievement for at-risk children in Central Alabama public elementary schools.

To complete this study, I would like to survey the elementary school principals. Participants will be asked to complete a general information/demographic questionnaire, and a twenty item survey. The survey will be completely anonymous. If permission is granted, I will need written notice stating approval. Should you require further information, please feel free to contact me at 334-421-1141, or at williamsmt@maconk12.org. Thank you in advance for any consideration given to this endeavor.

Regards.

Melissa T. Williams