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Nebraska Public School Administrators' Perceptions of Preschool Education

By

Jacqueline M. Florendo

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

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Nebraska Public School Administrators' Perceptions of Preschool Education

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University of Nebraska, 2012

Advisor: Jody Isernhagen

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at-risk children. The research study provided information on factors that influence school administrators' decisions to provide Pre-K programs. Demographic data was gathered from each participant so common group data, such as rural and non-rural disaggregated data, could be used to better analyze results and identify restrictions to implementation of Pre-K programs in schools and school districts.

An explanatory, sequential, mixed methods study was conducted during the spring and summer of 2012. The study initially gathered data using an online survey sent to elementary principals and superintendents in all public school districts in Nebraska. Interviews with a selected sample of Nebraska elementary school principals and superintendents were conducted following the survey to expand on the data results gathered from the quantitative study.

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*Never forget where you've been.
Never lose sight of where you're going. . . and
Never ever take for granted the people who travel the journey with you.
Susan Gale*

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Chapter 1

Introduction

Statement of Problem and Purpose

Improving schools, raising academic scores, and closing the achievement gap are common sound bites heard today throughout the education arena. “It’s not good enough,” stated Nebraska Board of Education member Jim Scheer regarding Nebraska’s state math test results released in October, 2011 (Dejka & Braden, 2011, p. 3B). “Fewer than one in five black 11th graders statewide met or exceeded the state’s math standards last year . . . suggest(ing) bleak prospects for young blacks trying to advance to college or science and technology careers” (Dejka & Braden, 2011, p. 3B). Dr. Roger Breed, Nebraska Education Commissioner, insisted that schools “look for solutions to the racial achievement gaps” (Reist, 2011, p. 1).

In looking for solutions to the achievement gap, referring to “the disparity in academic performance between groups of students” (Education Week, 2011, p. 1), various theories have appeared. Paul Barton (2003) in “Parsing the Achievement Gap: Baselines for Tracking Progress” identified multiple reasons for the achievement gap categorized in two arenas: Before and Beyond School factors: “Birth-weight; Lead Poisoning; Hunger and nutrition; Reading to young children; Television watching; Parent availability; Student mobility; and Parent participation” and School factors: “Rigor of Curriculum; Teacher Preparation; Teacher Experience and Attendance; Class-Size; Technology-Assisted Instruction; and School Safety.” Joshua Aronson (2004) wrote in *Closing the Achievement Gap* that the issue of trying to close the achievement gap is rooted “in the cultural stereotypes of intellectual inferiority that these students so

frequently complained about” (p. 14). Aronson continued that the issue is rooted in multifaceted aspects including parents, schools, and poverty and that all three issues must be considered together in closing the gap, “Serious analyses make it clear that all of these factors matter. Unless we learn to think complexly about the problem, then surely we will continue to fail *our* big test, which is to find a way for all children to thrive in school” (p. 19).

Some gains have been made from 1992 through 2007 in closing the achievement gap scores between black and white 4th grade students. This is seen slightly in the narrowing of gaps in math and reading scores and 8th grade math scores between black and white students, as noted by the National Center for Education Statistics (NCES, 2009, 2011, as cited in Education Week, 2011). However, in examining the scores, NCES data revealed that schools are still behind in closing the gap. The Center offered several common recommendations for narrowing these gaps, including expanding Preschool education (Education Week, 2011).

A significant study on a preschool (Pre-K) program examined the effects of a high-quality, Pre-K program on academic achievement for children at-risk. The study, the High /Scope Perry Preschool Project (Schweinhart, Barnes, & Weikart, 1993), examined the impact of a quality preschool program on the lives of 123 African Americans who attended the program from 1962–1967 at ages 3 and 4, all born in poverty and at high risk of failing in school. The program model included two and one-half hour weekday classes for children and one and one-half hour weekly home visits to each mother and child on weekday afternoons, incorporating Jean Piaget’s active learning and developmental principles based on the natural development of young children (Schweinhart, 2003).

Long-term study results indicated that children who attended the program “improved their educational performance, contributed to their economic development, helped prevent them from committing crimes, and provide(ed) a high return on taxpayer investment” (Schweinhart, 2003, p. 4).

A similar study, known as the Abecedarian study, was conducted 20 years later. This study was based on a Pre-K program for children coming from poverty, examining longitudinal data on those who attended the high-quality intervention program (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002). This study reinforced the results from the Perry Preschool project. The study revealed that preschool age children who were at higher risk and attended a high-quality preschool program had higher cognitive test scores from the toddler years to age 21. They attained higher academic achievement in both reading and math from the primary grades through young adulthood (FPG Child Development Institute, 2000). Both significant long-term studies examined the impact of developmental, active learning preschool programs that incorporated a parent/family connection.

A recent report released by the National School Board Association Center for Public Education, “Starting out Right: Pre-K and Kindergarten” (Hull, 2011) endorsed and provided additional support for the previous studies: “Students who attend Pre-K and then a minimum of a half day kindergarten program have significantly higher reading levels by the third grade than students who only attend full-day kindergarten” (p. 4). Additionally, “minority students, English Language Learners, and children from low-income families gain the greatest academic benefits from attending Pre-K and half day kindergarten” (Hull, 2011, p. 4). Mike Resnick, the Executive Director of National

School Board Association (NSBA), summarized the impact, “With the powerful positive impact of Pre-K and kindergarten—no matter if half or full-day—to advance student achievement, state and federal investments in early education will pay off for students, communities, and our nation” (Resnick, 2011, p. 4).

Academic, longitudinal study results from children who attended high-quality Pre-K programs present an influential case that similar programs can be a tool used to close the achievement gap. Yet, how much of this information is known to school administrators? Is early education considered as an intervention strategy to close the achievement gap in Nebraska schools?

Purpose of the Study

The purpose of this research study was to examine Nebraska public school administrators’ perceptions about Pre-K and its impact on student achievement for at-risk children. The research study provided information on factors that influence school administrators’ decisions to provide Pre-K programs. Demographic data was gathered from each participant so common group data, such as rural and non-rural disaggregated data, could be used to better analyze results. Common group perceptions were gathered, using the data to identify restrictions to implementation of Pre-K programs in some schools and school districts.

Research Questions

For the purpose of this study, six sub-questions were used to guide the research:

1. What do Nebraska elementary school principals and superintendents know about research linking children in high-quality Pre-K programs and later school achievement?

2. What do Nebraska public school principals and superintendents know about research-based high-quality criteria and curriculum in Pre-K programs?
3. To what extent do Nebraska public school principals and superintendents believe financial, facility, or human resources impact Pre-K programming in Nebraska schools?
4. Are there differences in administrators' perceptions about Pre-K programming, knowledge of research, understanding of curriculum, and availability of resources between:
 - a. elementary principals and superintendents?
 - b. schools with higher percentages of lower socio-economic and at-risk children and schools with lower percentages of lower socio-economic and at-risk children?
 - c. Title I and non-Title I schools?
 - d. schools with higher and lower percentages of English Language Learners (ELL) students?
 - d. rural and non-rural school districts?
 - e. school districts with different student populations?
5. What other factors influence Nebraska public school elementary principals' and superintendents' perceptions about Pre-K programs?
6. What types of Pre-K programs currently exist within Nebraska public schools or are associated with public schools in Nebraska?

Background

Pre-K research has been greatly impacted by new technology. The use of new medical expertise developed within the past 30 years, most specifically the *Magnetic resonance imaging (MRI)* has led to the newest brain development information. “It is clear that innovative methods like MRI together with MRI-based morphometry and nonhuman primate studies will transform our current understanding of human brain development” (Casey, Giedd, & Thomas, 2000, p. 1). The use of the MRI has contributed to new Pre-K research that links the importance of Pre-K with rapid brain development in the early years (Hawley & Gunner, 2000).

In 2000, a ground-breaking report was released by the National Academy of Sciences, *From Neurons to Neighborhoods: The Science of Early Childhood Development* detailing the rapid brain development in the early years (Shonkoff & Phillips, 2000). This report was followed up by a report, “*A Science-Based Framework for Early Childhood Policy*” (Center on the Developing Child at Harvard University, 2007) reporting that, “Early experiences determine whether a child’s developing brain architecture provides a strong or weak foundation for all future learning, behavior, and health” (p. 2).

Because brain architecture and skills are built continuously over time, policies that promote healthy development throughout the early years create a foundation for later school achievement, economic productivity, responsible citizenship, and successful parenting. For children at unusually high risk, neuroscience provides a compelling argument for beginning programs at birth, if not prenatally, since a substantial amount of brain circuitry is constructed very early in life. (Center on the Developing Child, 2007, p. 3)

The research has led to the realization that the early years, the years *before* formal education in kindergarten begins, are critical to forming the foundation for lifelong

learning, “Neuroscience and child development research address the *why* and *what* questions about investing in young children” (Center on the Developing Child, 2007, p. 2).

This research aligns with four decades of data supporting the premise that quality, intensive Pre-K programs can “improve a wide range of outcomes for vulnerable children well into the adult years, as well as generate benefits to society that far exceed program costs” (Center on the Developing Child, 2007, p. 2). The High/Scope Perry Preschool Study, one of the initial studies examining the long-term impact of a high-quality preschool program for children born in poverty “found evidence of preschool program effects on children’s readiness for school and their subsequent educational success, economic success in early adulthood, and reduced number of criminal arrests throughout their lives” (Schweinhart, 2003, p. 1). The Abecedarian Study supported these findings (FPG Child Development Institute, 2000). Comparable groups of children were sampled. Both groups of children, the control and intervention groups, initially were comparable on infant mental and motor tests (FPG Child Development Institute, 2000). The study provided evidence of the positive effects of preschool on intellectual development and academic achievement maintained through the age of 12 (Campbell & Ramey, 2008). Specifically, results showed that children in the intervention group had significantly higher scores on mental tests than children in the control group. Follow-up cognitive assessments completed at ages 12 and 15 years showed that the intervention group continued to have higher average scores on mental tests. The treatment/control group gap narrowed but the trajectories did not meet. Effect sizes remained moderate. Treated children scored significantly higher on tests of reading and math from the

primary grades through middle adolescence. Effect sizes for reading were large; those for math were large to moderate. . . . At age 21, cognitive functioning, academic skills, educational attainment, employment, parenthood, and social adjustment were measured and all were positively impacted (FPG Child Development Institute, 2000).

Five key principles were used in both the Perry Preschool project and the Abecedarian study that followed guidelines for high-quality programming: (a) providing services that are of sufficient length; (b) small class sizes; (c) small teacher-student ratios; (d) programs are comprehensive in scope including a parent and family element; and (e) programs are implemented by well-trained and well-compensated staff (Center on the Developing Child, 2007).

Innovative brain development research has also opened doors to a better understanding of the important link between cognition and emotions, “When students feel socialized and accepted, they perform better academically” (Jensen, 2009, p. 20). Jensen goes on to explain that babies are born with the six hardwired emotions: joy, anger, surprise, disgust, sadness, and fear—all the other emotions, important emotions to function successfully in a classroom, *must be learned*, including: cooperation, patience, embarrassment, empathy, gratitude, and forgiveness. All these learned emotions are skills critical to efficiently and successfully coping in complex social environments, most specifically, the classroom (Jensen, 2009). However, brain development research tells us these skills are developed early in life with much of their formation environmentally conditioned. “Genetic factors account for between 20% and 60% of the phenotypic variance in personality, which means that the remaining 80% to 40% of the variance is attributed to environmental factors. Clearly, the environment is very important to

temperament” (Saudino, 2005, p. 4). Jensen (2009) attributed environmental factors heavily influencing temperament, as high as 50 to 70% based on Saudino’s research. Bruce Perry, an internationally recognized researcher in children’s mental health and neurosciences, supported these claims:

The systems in the human brain that allow us to form and maintain emotional relationships develop during infancy and the first years of life. Experiences during this early vulnerable period of life are critical to shaping the capacity to form intimate and emotionally healthy relationships. Empathy, caring, sharing, inhibition of aggression, capacity to love and a host of other characteristics of a healthy, happy and productive person are related to the core attachment capabilities which are formed in infancy and early childhood. (Perry, 2001, pp. 1-2)

From this, we come to understand the link between the impact of quality early education experiences and later school success. High-quality Pre-K programs, as defined by the National Association for the Education of Young Children (NAEYC) and outlined by Sue Bredekamp and Carol Copple in “Developmentally Appropriate Practices in Early Childhood Programs (1997), reflect opportunities for holistic development. Specifically, early childhood curriculum should reflect development of all the domains, including physical, social, emotional, aesthetic and cognitive development. Development in one domain effects development in the other domains (Bredekamp & Copple, 1997). Quality early education programs display curriculum that supports development of all domains (Bredekamp & Copple, 1997). Principles of child development and learning “inform and guide decisions about developmentally appropriate practice” in quality programs (Bredekamp & Copple, 1997, 9). Quality Pre-K programs 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” (Bredekamp & Copple, 1997, p. 13). It is within this construction of the

world around them and the world within them, that a child's foundation for lifelong learning is being formed (Bredekamp & Copple, 1997).

Quality Pre-K programs fill an essential gap for children who do not have the environmental home conditions to support development of all domains, "For young children from low-income families, participation in very high-quality, center-based, early education programs has been demonstrated to enhance child cognitive and social development" (Center on the Developing Child, 2007, p. 4).

The research creates a compelling argument that Pre-K can be an effective strategy to close the achievement gap and increase academic achievement, especially for those children most at-risk. It seems logical that Pre-K would appear to be a school improvement strategy for schools serving a significant number of children from lower socio economic families. Yet, how much of the information on early brain development, its impact on academic achievement and high-quality Pre-K research is known by school leaders?

In this era of school improvement and the importance of raising academic scores, is Pre-K used today as an intervention strategy in Nebraska schools? In 1991, the Nebraska Department of Education began a program to distribute a small amount of funding for early education to Nebraska schools. Funding allotment increased each year and in 2000, it released its first round of grant funds, *Pre-K Grant Program*, available to school districts to support the development of preschool programs in Nebraska schools.

This program:

is intended to support the development of children from birth to kindergarten age through the provision of comprehensive center-based programs. In most cases the projects expand and/or combine existing Pre-Kindergarten programs funded

through district, federal, or parent fees, including Head Start. (Nebraska Department of Education, 2011b)

In the first year of allocation, there were a small number of applications, “approximately 15-18 schools applied for these funds” according to Linda Meyer, Education Specialist with the Nebraska Department of Education (NDE) Office of Early Childhood. Since the first year, these funds have become very competitive as the number of schools applying for the grants continued to rise. Beginning with the school year in 2006-2007, state aid was calculated so that school districts with grant funded preschool programs, who have successfully met quality programming guidelines for three consecutive years as outlined in Rule 11, would be able to include the number of preschool children currently served in their district and eligible to attend kindergarten in the following year within their calculated school district funding formula.

In 2010-2011, there were 157 districts in Nebraska that had their own preschool programs. Additionally, 21 districts were being served by ESUs as the managing entity for their district preschool program; together, 178 out of 254 districts in Nebraska claim ownership to a school-based Pre-K program and 175 Pre-K programs for the 2011-12 school year (L. Meyers, personal communication, October, 2011). However, in breaking down this figure, we find that Pre-K programs in Nebraska schools are defined ambiguously. According to the 2009-2010 Annual Evaluation Report: Pre-K Grant Program – Ages 3-5 (NDE, 2010b), 71 of Nebraska’s school districts and Educational Service Units used Pre-K program grant funds to serve 3,042 children during 2009-10. The Individuals with Disabilities Education Act (IDEA) federal law mandates special education services for children with disabilities from the time they are born until they graduate from high school. Many schools have an early childhood special education

preschool program to serve special education students, ages three to five with peer role models, but this program does not cross into serving other “at risk” students. According to Meyer,

this is not a substantial number of the preschool programs, but there is no way for the state to track this; school districts that have received grant funds for Pre-K, must serve ‘at risk’ children, that includes special education; but ALL classrooms, regardless of preschool program, must meet Rule 11. (L. Meyers, personal communication, October 2011)

Thus, the number of Nebraska school districts that have Pre-K programs to specifically address the needs of ‘at risk’ preschool-age children is not clear. This study provided additionally information on current Pre-K programs that are a part of Nebraska public schools.

Today Nebraska’s schools are increasingly serving more “at-risk” students. “The term ‘at risk’ is an ever-present word widely used to address a variety of topics, such as poverty, violence, substance abuse, low self-esteem, and school failure.” “At-risk” defined by Jan Murdoch of University of Texas Permian Basin, a higher education researcher and instructor of special education and early intervention, is similar to that of the Texas Education Agency’s (TEA) official position, “at-risk children have a greater likelihood of becoming [educationally] disabled because of conditions surrounding their births or home environments” (1999, p. 318). Similarly, Richard Sagor (1999) defines “at-risk” as a disparity between learner and learning system. “At-risk” defined by Nebraska Department of Education: Office of Early Childhood (2012) as children from families of income that qualifies them for participation in the federal free or reduced lunch program; who live in a home where a language other than spoken English is used as the primary means of communication; where parents are eighteen or younger and have

not met high school graduation requirements; and children who were born prematurely or at low birth weights.

The poverty indicator used most commonly by schools is the percentage of children eligible for free and reduced lunches. In Nebraska this has increased from 35% in 2005-06 to 42% in the 2010-11 school years (Nebraska Department of Education, 2011a). During the school year, 2010-2011, there were 21 schools in 14 districts in Nebraska that were Title I schools/districts in “Needs Improvement” status (Isernhagen & Florendo, 2011). In order to be identified as Title I, the school must be serving over 40% of children in the free and reduced lunch category. Additionally, the racial, cultural, and ethnic differences in Nebraska schools continue to become more racially, culturally and ethnically diverse and are being served in both rural and non-rural schools. In 2005-2006, Hispanic students enrolled in Nebraska schools numbered 32,795. Today that number has increased to 47,836. According to NDE in the Nebraska ELL Program Guide (2010a),

While many of Nebraska’s English language learners are concentrated in urban areas, many smaller, more rural communities are experiencing an influx of language-minority students. Schools in these locations are unlikely to have the large numbers of bilingual and ESL teachers and other resources enjoyed by schools in larger communities. This change in the number of limited English proficient (LEP) students presents a new challenge to many Nebraska districts. (p. 3)

This is reflected in Nebraska schools that are Persistently Lowest-Achieving Schools (PLAS) Tier I Schools, “the five (5) lowest-achieving Title I schools identified to be in school improvement, corrective action, or restructuring plus any Title I served secondary school with a graduation rate of less than 75% over the three latest years that was not captured in the above five schools” (NDE, 2011-2012, p. 1). All schools listed as PLAS

Tier 1 are also high in cultural/ ethnic diversity. The data revealed an increased need to invest in programs that can help close the achievement gap as the number of ‘at risk’ children in Nebraska continue to rise.

Furthermore, with the need to increase Pre-K accessibility in Nebraska schools, this also increases the likelihood that Nebraska school administrators will eventually supervise Pre-K programs. Additionally, the research links high-quality curriculum with long-term, positive results for at-risk children. The literature on administrator knowledge regarding Pre-K, it’s link to academic achievement and additionally, their knowledge of high-quality curriculum appears minimal. In reviewing research literature on administrator perceptions regarding Pre-K, guidelines for increasing administrator and leadership knowledge of Pre-K were offered in some resources such as early education journals, books and online web sites. However, gauging an actual perception of administrator current knowledge level about Pre-K was difficult to find. According to Kostelnik and Grady (2009), “many school administrators have little or no training in how to design, implement, and evaluate programs for the very young children” (p. vii). This study sheds some light on school administrators’ perceptions and understanding of quality Pre-K, best practices, and current efforts to link school improvement and Pre-K.

Method

A mixed methods research design was selected in order to address the primary and secondary research questions in this study. This design is based on the collection of quantitative data, using qualitative data to elaborate or better identify and explain quantitative results (Creswell, 2005). A survey developed by the researcher was distributed to all Nebraska school elementary principals and superintendents via email.

After the survey data was tabulated and analyzed, interviews were conducted with a sample of Nebraska school administrators. Additionally, data was collected and categorized in subgroups with similar: student population sizes; free and reduced lunch percentages; ELL student populations; Title I and non-Title I schools; and rural and non-rural schools.

Definition of Terms

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

Center-based program—Programs for children ages birth to kindergarten operated for a group of children in a classroom on a part-day (less than 6 hours) or full-day (6 hours or more) basis. The program provides a learning environment that promotes holistic development across all domains and promotes instructional and interactional strategies that are individualized, family centered, and identify goals related to learning and child outcomes.

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

Head Start—National federally funded program 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.).

Infant/Toddler Programs—Pre-K and care programs serving infants through 36 months.

Kindergarten programs (K)—Programs serving five- and six-year olds.

Early Childhood Education—The period of a child’s life from birth through age 8.

Pre-K - For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

Preschool—Pre-K programs serving children beginning at 36 months through five years of age.

Rule 11—Regulations for any Pre-K Program in Nebraska Schools.

Title I—Schools where 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 are eligible to receive federal Title I funds (Great Schools, n.d.)

Assumptions

As a higher education early childhood educator, researcher, administrator, and consultant, this researcher has worked in the profession for over 22 years and has worked with schools and school administrators in various capacities for the past 18 years. One critical assumption of the researcher is that it is possible, based on the review of literature, to measure the knowledge administrators possess in the field of Pre-K. The researcher assumes that the survey and interview tools that were used for this study yielded accurate information from principals and superintendents of what they know about Pre-K. Additionally, the researcher assumed that some administrators do not possess the facts and information necessary to use with stakeholders in gaining

unconditional support for Pre-K programming in their school district. The information gained in this research can be used to support higher education efforts to better equip future administrators with Pre-K knowledge and skills, including research in the field of early childhood education that connects quality programming to student academic achievement.

Limitations and Delimitations

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 conditions that restrict the scope of the study or may affect the outcome and cannot be controlled by the researcher. The researcher acknowledges these limitations in this study:

1. Only Nebraska administrators participated in this study, thus results were limited to state boundaries.
2. Quantitative results were limited to those administrators who have access to the survey and those who took the time to complete the survey. These factors may have inhibited the sample population.
3. Compilation of the research was limited to the willingness of the participants who completed the survey; this may have impacted the follow up interviews.
4. One school district chose not to participate.
5. Some school districts may have had limited access to the survey for administrators, limiting the data accumulated.
6. Some participants may not have answered truthfully or at all.
7. Qualitative data was subject to a variety of interpretations.

8. Survey participants were not perfectly, evenly distributed per administrator role, per geographic area or per school demographic category.
9. Some school districts were represented more than once if both the superintendent and elementary principal or multiple principals participated from the same school district.

Delimitations. Delimitations are restrictions/bounds that researchers impose prior to the inception of the study to narrow the scope of a study. The researcher acknowledges delimitations to the study:

1. Only Nebraska public school administrators were used for the sample population, thus eliminating private and other school districts outside the state who may share different perceptions about Pre-K.
2. An email survey does not guarantee that the most knowledgeable administrator within the school district participated in the study.
3. This study took place at a time when Pre-K was getting an enormous amount of attention and support to enhance programming and services. Duplicating this study five years from now may not produce identical results.

Target Audience

The target audiences for this study were administrators in Nebraska public schools, specifically, superintendents and elementary principals. While administrators were the specific focus, the findings from the study can also benefit other organizations. Higher education institutions can gain an understanding of what administrators currently know about Pre-K and what needs to be implemented in school leadership and administration curriculum to enhance school leadership skills and knowledge in this

arena. State departments may utilize the findings to encourage school improvement efforts linked to Pre-K.

Significance of the Study

The long-term impact research studies on the benefits of Pre-K supported by brain development research affirm that quality Pre-K programs can positively influence academic achievement for children, especially those most at-risk. This study aimed to gain an understanding of what Nebraska school administrators know and understand about this information. Currently, it is not clear what they know and the extent of their knowledge about Pre-K research. Thus, higher education institutions can benefit from having a better understanding of what administrators currently know and information they need to enhance their skills and knowledge in the arena of Pre-K. With 175 current school districts in Nebraska associated with early education programs, it is important that school administrators understand the research and quality programming criteria in order to gain the positive results from their Pre-K program, for the children, schools, and communities they serve. Additionally, state departments can benefit from the information by acquiring insight on possible factors that influence schools in providing Pre-K programs. In disaggregating the data, additional information was gained on availability of school and community resources in implementing district Pre-K programming, uncovering constraints and identifying restrictions.

The gathering of common group data can be used to educate and advocate 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 administrators.

In today's society with limited resources and the urgent cry to close the achievement gap, it is critical that policy makers choose wisely among the various tools and strategies to support educational achievement for all students. Additionally, it is widely accepted that our nation's future success and security begins with the well-being of all our children. School leaders are key, "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, p. 24). In order to be effective in meeting this 'charge' we must first gauge what administrators know about Pre-K.

Chapter 2

Review of the Literature

For the first time ever, we are looking ourselves in the mirror and holding ourselves accountable for educating every child. That means all children, no matter their race or income level or zip code. (Former Secretary of Education, Margaret Spellings, 2006)¹

“The ‘achievement gap’ in education refers to the disparity in academic performance between groups of students” (Education Week, 2011, p. 1). Wikipedia describes achievement gap as “the observed and persistent disparity on a number of educational measures between the performance of groups of students, especially groups defined by gender, race/ethnicity, and socioeconomic status” (2011, p. 1). The achievement gap is commonly revealed in test scores, high school dropout rates, and higher education statistics as well as course selections.

It is most often used to describe the troubling performance gaps between African-American and Hispanic students, at the lower end of the performance scale, and their non-Hispanic white peers, and the similar academic disparity between students from low-income families and those who are better off. (Education Week, 2011, p. 1)

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). An updated report, *A Nation Still at Risk* (1998), revealed how only

¹ Secretary Spellings’ prepared remarks at the Urban Alternative’s 18th Annual Church Development Conference for Pastors and Church Leaders.

slight progress had been made, including little progress in the disparities between the groups of students.

Fifteen years after the initial report, 10 million American students reached the 12th grade without learning to read at a basic level, “The numbers are even bleaker in minority communities” (Bennett, et al., 1998, p. 23). Goals 2000 recommended new education efforts to “raise standards and measure achievement” (Walberg, 2010, p. 1). In 2001, a new education reform movement titled “No Child Left Behind” (NCLB) again aimed to raise student achievement and close the disparities between groups of students. 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 American (U.S. Department of Education Budget Service and The Nation’s Report Card, 2002b). 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). This is also significant as research, most notably that of the National Reading Panel (2000), has determined those who have not reached reading proficiency level by the 4th grade, the gap only grows much wider and hope diminishes significantly for reading proficiency, if no extreme intensive intervention strategies are employed. “If students don’t make this transition on time academic life will only become more challenging as the school years go on. A fourth grader who reads at a first- or second-grade level doesn’t understand one-half to two-thirds of the curriculum. . . . Researchers have found that a poor readers in third grader likely will be a poor reader in high school”

(Breazile, 2011, p.12). Thus early problems lead to long-term academic and social issues (Breavile, 2011).

Achievement Gap

Recent assessment reports disclose that African American and Hispanic students have shown improvement in their performance in reading and mathematics over the past ten years. However, a gap in achievement between whites and minority students still exists. 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 *Diplomas Count* report site:

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 Nebraska for the school year 2008-2009 outlining the disparities in racial and ethnic groups of students (Breazile, 2010).

Adding to the graduation rate, disparities in college bound students are also reflected in race and ethnicity. Sixty-two percent of qualified White high school graduates enter college, while only 12% of similarly qualified Hispanic graduates and

Table 1

Graduation Rates by Race, Ethnicity and Gender (2008-2009 School Year)

Students	Graduation Rate (%)
Ethnicity	
White	93.23
Black	69.36
Asian	93.79
Hispanic	77.79
Indian	68.59
Gender	
Female	91.48
Male	88.33
Nebraska Total	89.88

14% of Black high school graduates enter college (U.S. Department of Education, National Center for Education Statistics, 2010, Table 235).

Achievement Gap and Poverty

Many studies show that achievement disparities closely align to socioeconomic aspects. “Equal educational opportunity is the next great civil rights issue. . . . The educational gaps between advantaged and disadvantaged students are huge, handicapping poor children in their pursuit of higher education, good jobs, and a better life” (Bennett et al., 1998, p. 4).

One of the largest studies conducted on kindergarteners examined the link between children of lower socio-economic status - children of poverty - and school achievement and how this disparity is strikingly evident before the children enter school. Lee and Burkam, in *Inequality at the Starting Gate* (2002), reported a vast difference in

children's first grade reading and mathematics scores revealing that the lower their socioeconomic status, the poorer their scores before they entered first grade.

Poverty was described as the condition of having little or no money, goods, or means of support; implies a state of provisional or lack of necessities (Dictionary.com LLC, 2012). Eric Jensen (2009) explained poverty as having insufficient income to purchase basic needs—food, shelter, clothing, and other essentials. The income level set by the Office of Management and Budget (OMB) establishes the official poverty thresholds. Poverty is also based on geographic location, as the cost of living varies according to the region of the country one lives (Jensen, 2009). Jensen described six types of poverty. This paper will primarily refer to these five types of poverty:

1. situational - caused by a sudden crisis or loss and is often temporary;
2. generational - occurs in families with a minimum of two generations of poverty and are not equipped to move out of the situation;
3. relative - refers to the economic conditions of a family and income does not provide for the average standard of living;
4. urban - takes place in metropolitan areas of more than 50,000 people and consists of complex and combined chronic and acute stressors (violence, noise etc.), dependent on other services and programs to meet needs; and
5. rural - occurs in areas with less than 50,000 people with less access to support services.

Effects of Poverty

Poverty has been associated with various factors that impact development and influence academic achievement. Children of poverty move more frequently, have

multiple transitions, and change schools more often. “Student mobility refers to changes in school enrollment at times other than those prompted by program design” (Rhodes, 2005, p. 2). Research indicates that as students move more frequently, they face an increased risk of lower test scores and of dropping out (Fowler & Seibert, 2008; Rumberger, 2003).

Children from poverty are associated with a lack of adequate nutrition that adversely impacts development. “Good health, both physical and behavioral, is an essential element to a productive life” (Breazile, 2010, p. 43). Inadequate nutrition can hinder mental development, disrupt cognitive development, and is particularly more devastating in the first few years of life when the brain is growing rapidly. A number of researchers in the U.S. have determined that children with a history of malnutrition attained lower scores on intelligence tests, and have attributed long-term impact on a child’s motor skills, physical growth, and social and emotional development than children of similar social and economic status who were properly nourished (Brown & Pollitt, 1996). According to Brown and Pollitt (1996) “Research has firmly established that under nutrition in early life can limit long-term intellectual development . . . low economic status can exacerbate all these factors, placing impoverished children at particular risk for cognitive impairment later in life” (p. 43). Thus the impact of poverty can dramatically affect a student’s capability to learn.

Children’s health and well-being are impacted by poverty, including prenatal care. Poverty is associated with premature births and low birth weight. In a National Longitudinal Survey of Youth-Child Data (1986-1996) examining the impact of birth factors associated with social risk factors on children’s developmental outcomes, birth

weight is significantly associated to developmental outcomes of key social and economic controls and significantly more pronounced at very low birth weights (Boardman, Powers, Padilla, & Hummer, 2002).

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 Moore, Redd, Burkhauser, Mbwana, & Collins, 2009; Brooks-Gunn & Duncan, 1997) Additionally, Walberg (2010) explains 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). These children can benefit from quality Pre-K, child care, 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).

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 enriched vocabulary, as well as language interaction (Hart & Risley, 1995). They are less likely to engage in literacy activities, such as visiting the library or reading at home than middle to wealthier children (Federal Interagency Forum on Child and Family Statistics, 2000). In a study conducted by Walker, Greenwood, Hart, and Carta (1994), “When combined with a composite SES

indicator, socio-economic factors, early child language production significantly increased the variance accounted for in the prediction of elementary language and academic competencies in each subsequent year in elementary school” (abstract). Quantity and quality of vocabulary is strongly linked to literacy development and academic success. Children from lower socio-economic families enter kindergarten up to four times behind their counterparts in language, expressed in their vocabulary (Hart & Risley, 1995). In lower socio-economic families, parents were less likely to visit the library or read at home with their children. 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, Cao, Xiong, Zhang, Zhou, & Wei, 2003).

Increase in Poverty

Poverty is on the rise. More than 16.4 million American children are poor, and living in working families, with a disproportionate number of the children Black and Latino (Children’s Defense Fund, 2011a).

46.2 million poor people in America, the largest number in the last 52 years. One in three of America’s poor were children—16.4 million—over 950,000 more than last year. The new numbers are grim and shameful—22%—or over one in five children in America—lived in poverty in 2010. Children under five suffered most—one in four—or 5.5 million infants, toddlers and preschoolers were poor in 2010. Children are the poorest age group in the country and getting poorer. . . . Children of color were disproportionately poor: 4.4 million Black children—more than one in three—and 6.1 million Hispanic children—one in three—were poor. Five million White, non-Hispanic children—more than one in ten—were poor. (Children’s Defense Fund, 2011a, p. 1)

All three levels of poverty (overall, family and child) in Nebraska have increased statistically since 2000, following a period of decline in the 1990s. The number of Nebraska children in poverty has increased from 10% to 15.2% over the past ten years (Breazile, 2010). Thus, the potential is there for more children to be impacted by poverty and its effects on school achievement. Nebraska's *State of the Schools Report* (2010-2011) mirrors these research studies on the effect of poverty (Nebraska Department of Education, 2011a). Nebraska student scores overall are quite high with an overall average of 84.3% for 3rd through 8th grade. The average score for Nebraska students proficient in reading in 2009-10 for grades 3rd – 8th and 11th grade was 68.64%; in 2010-11 this was 71.82%. However, Nebraska students' on Free and Reduced Lunch's average proficient score in Reading in 2009-10 was 53.49% and 2010-11 was 57.96% (Nebraska Department of Education, 2011a).

Achievement Gap and English Language Learners

English language learners (ELL), another group of students associated with disparities in the achievement gap, is the term used for students whose primary language is something other than English, aged 3 through 21, enrolled or prepared to enroll in an elementary or secondary school, and who have difficulties speaking, reading, writing, or understanding English (Nebraska Department of Education, n.d.a.). Students face academic challenges when they have difficulty speaking English. ELL students are more often placed in remedial or low level courses, taught basic skills, and have less access to courses that prepare them for college (National Council of La Raza, 2009).

. . . ELL students are much less likely than white students to score at or above the proficient level in mathematics. The measured gaps are in the double digits, such as in Florida 45% of ELL 3rd-graders scored at or above the proficient level on

the math assessment, compared with 78% of white 3rd-graders, yielding a white-to-ELL gap of 34 percentage points ” (Fry, 2008, p. iii).

Reading scores are primarily most affected (Fry, 2008, p. 3).

This too is mirrored in Nebraska test scores. Overall, 71.82% of Nebraska students scored at the proficient level on the Nebraska State Assessment (NeSA) in Reading in the 2010-11 school year. However, only 38.72% of ELL students scored proficient in Reading on the NeSA test in 2010-11 school year (Nebraska Department of Education, 2011a).

Achievement Gap, Race, and Ethnicity

There is also a correlation with race and ethnicity and the achievement gap. A number of recent studies have attempted to investigate the correlation. Status and Trends in the Education of Racial and Ethnic Minorities (KewalRamani, Gilbertson, Fox, & Provasnik, 2007) examined the education of the major racial and ethnic groups in the United States from pre-kindergarten through the postsecondary level, employment and income data. The report identified a variety of factors that are correlated with the achievement gap, then examined these in relationship to Black and White students. The report revealed that Black students were more likely than White students to come from poverty. The National Assessment of Education Progress (NAEP) attempted to isolate key variables related to the Black-White achievement gap. Barton and Coley (2007) associated student achievement, as measured by NAEP, with four home factors: the presence of two parents in the home, the hours children spend watching television, the hours parents spend reading to them, and the frequency of absence from school. The results revealed that Black students compared to White students, were less likely to come from a family with both parents in the home, spent more hours watching television, were

read to by their parents for fewer hours, and were more likely to be absent from school.

Parsing the Achievement Gap II considered 16 factors that were previously associated with how well students performed in school (Barton & Coley, 2009). These include: seven school factors (curriculum rigor, teacher preparation (certification), teacher experience, teacher absence and turn over, class size, availability of instructional technology, fear and safety at school); home and school connection (parent participation); and eight before and beyond school factors (frequent changing of schools, environmental damage, hunger and nutrition, talking and reading to babies, excessive television watching, pupil/teacher ratio, and summer academic gains and loss).

Using data from NAEP and other sources, the report said that for all 16 factors there were gaps that favored White students over Black students--for example, White students were more likely than Black students to attend schools offering rigorous curriculums and less likely to suffer from low birth weight. (Vanneman et al., 2009, p. 2).

Achievement Gap, Poverty, and Early Development

A relationship between poverty and the achievement gap exists. Even more so, the disparities in the achievement gap for children of lower socio economic status occur even *before entering kindergarten*. Research from Klein and Knitzer (2007, p. 2) reveals that poverty and early development are associated:

The average cognitive scores of preschool-age children in the highest socioeconomic group are 60% above the average scores of children in the lowest socioeconomic group.

At 4 years of age, children who live below the poverty line are 18 months below what is normal for their age group; by age 10 that gap is still present. For children living in the poorest families, the gap is even larger. By the time children from middle-income families with well-educated parents are in third grade, they know about 12,000 words. Third grade children from low-income families with undereducated parents who don't talk to them very much have vocabularies of around 4,000 words, one-third as many words as their middle-income peers. (Klein & Knitzer, 2007, p. 2).

Other identified factors that are associated with poverty and have been shown to impact achievement include: welfare dependency, absent parents, one-parent families, unwed mothers, and parents who did not graduate from high school (U.S. Department of Commerce: Bureau of the Census, 1997). These factors are associated with child outcomes of ‘not in school and not working’ and teenage pregnancy (U.S. Department of Commerce: Bureau of the Census, 1997), with some factors associated with more adverse outcomes than others.

Children who are identified with one or more of any of these factors (poverty, high mobility, ELL, single parent, welfare dependency, absence of parents, unwed mothers, and parents who did not graduate from high school) are associated with being ‘at risk’ academically. The more obstacles or factors children experience, the more likely they are to stumble in school and later as adults. These risk factors align with the achievement gap and present the challenges in overcoming “the disparity in academic performance between groups of students” (Education Week, 2011, p. 1).

Efforts to Close the Achievement Gap

With 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).

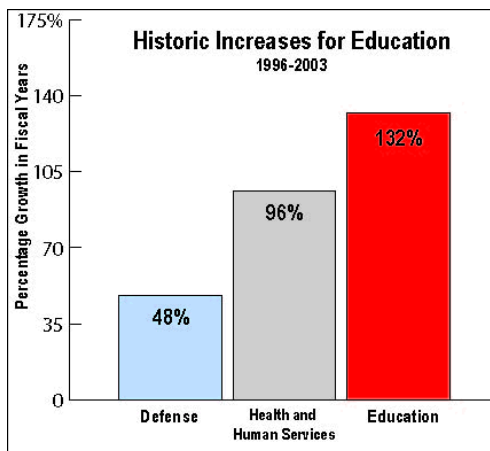
With enhanced efforts to close the achievement gap, publications of notable successes are appearing in the education literature. *Closing the Achievement Gap*, (Schwartz, 2001) spotlight specific principles that have been met with some success. These include: (a) school climate: promote the expectation that all students can succeed, the demand that they do so; (b) focus on teaching strategies and professional development; (c) focus on learning; (d) school management; (e) early childhood development initiatives; and (f) family supports.

Doug Reeves (2003) examined schools that have become known as the *90/90/90* schools: More than 90% of the students are eligible for free and reduced lunch, more than 90% of the students are from ethnic minorities, and more than 90% of the students met or achieved high academic standards, according to independently conducted tests of academic achievement. The Center for Performance Assessment inspected the "90/90/90 Schools" examining the use of standards and assessment over a four year period. Test data from 1995 through 1998 from elementary through high schools from more than 130,000 students in 228 buildings were examined and five common attributes were found: frequent assessment of student progress and multiple opportunities for improvement; a focus on academic achievement; clear curriculum choices; an emphasis on nonfiction writing; and collaborative scoring of student work (Reeves, 2003).

Rick Stiggins (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 moved forward to meet new NCLB requirements in Nebraska, they too became more assessment literate embracing the concept of assessment for learning (Isernhagen, 2009). Criterion referenced test (CRT) scores showed increases in student achievement over a three year period of time for all groups of children in reading, science, and math; however, no significant gains in normative referenced test (NRT) scores were seen in these curriculum areas for any group of students.

Progress has been made in closing the achievement gap, but the gap still exists. Furthermore, an abundance of financial resources have been reverted to support these efforts. Since 1965, more than \$778 billion has been spent on federal programs for elementary and secondary education (National Center for Education Statistics, 2005). The No Child Left Behind Act of 2001 increased federal spending on public education 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 new regulations (Lips & Feinberg, 2007). Additionally, the amount of funding resources allocated to break the cycle of disparities continued to rise.

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



(U.S. Department of Education, 2002b).

Figure 1. Historic increases in education.

read skillfully at grade level” (U.S. Department of Education Budget Service and The Nation’s Report Card, 2000, p. 2).

As our federal and state governments around the nation face ‘red ink’ budgets, education funding is a part of the chopping block. “We must do more with less” is a resounding cry heard around schools, businesses, the military, agencies, and organizations. How does one continue to make gains in closing the achievement gap with fewer resources? Are Pre-K programs seen as a viable means to do more with less, implementation of prevention programs rather than more costly intervention programs?

Cost Benefits of Quality Pre-K Programs

Previous and new studies continue to show the many benefits of quality Pre-K programs, with substantial benefits for at-risk children. 2010-11 study results of the Early Childhood Longitudinal Study (National Center for Educational Statistics, n.d.) showed high-quality Pre-K programs positively impacted student learning especially for children at-risk, provided financial savings through less intervention services and

improved working environments for teachers (i.e., lower turnover and absenteeism, and reduced teacher recruitment and retention expenses).

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)

Researchers calculated the economic benefits that a Pre-K Program would return to the K-12 system, "For each additional child served in a Pre-K program, school districts can save between \$2,600 and \$4,400 over the child's K-12 experience" (Wat, 2007, p. 16).

Economist James Heckman (2011) estimated that every dollar spent on Pre-K returned 10 cents annually over the life of a child. Thus, if \$8,000 is invested for someone living to age 65, the return on the investment would be over \$650,000 ($.10 \times 8,000 \times 65$) which is nearly 80 times the amount of the original investment (cited in Hull, 2011; Heckman, 2011).

Another similar study, The Chicago Longitudinal Study, investigated the effects of an early and extensive childhood intervention in central-city Chicago called the Child-Parent Center (CPC) Program established in 1967 (University of Minnesota, 2011). The study began in 1986 to investigate the effects of government-funded kindergarten programs for 1,539 children in the Chicago Public Schools. Researchers surveyed children and their parents, and analyzed education, employment, public aid, criminal justice, substance use and child welfare records for the participants through to age 26.

Findings provided strong evidence that high-quality early childhood programs benefited individuals, families and society. Economic benefits in 2007 that included increased earnings and tax revenue, reduced crime related expenses, savings for child welfare and school related special education and grade retention costs amounted to a total return of \$10.83 per \$1 invested (University of Minnesota, 2011).

Children at higher levels of risk experienced the highest economic benefits, including males (\$17.88 per dollar invested; a 22% annual return), children who had taken part in preschool for a year (\$13.58 per dollar invested; a 21% annual return) and children from higher-risk families, including those whose parents had not graduated from high school (\$15.88 per dollar invested; a 20% annual return). (University of Minnesota, 2011).

Studies over the past 40 years, such as the Perry Project, the Abecedarian Project, and the Chicago Child-Parent Center Longitudinal Study found that lower socio-economic children exposed to a Pre-K environment that nurtures and stimulates development in the first five years of life, achieve higher results in elementary and secondary education, and grow up to become more successful adults (National Governor's Association Center for Best Practices (NGA), n.d.).

These studies also show that high-quality settings improve a child's social skills, thinking skills, language ability, and improved academic performance. Consistent quality program elements included in these studies were: curricula were based on how children learn best using a play, active-learning approach; children *and families* were involved in the program and parent involvement was a priority; curriculum was based on developing the whole child: social, emotional, physical, cognitive, aesthetic and skills to promote responsibility were all incorporated; teachers had a minimum of four year bachelor degrees in Pre-K and received equivalent salary and benefits of school district teachers;

group ratios and teacher to child ratios were small (Kostelnik & Grady, 2009; NGA, n.d.).

Common benefits from these studies for children and later as adults included: higher scores on standardized reading and math tests, which impacted overall school academics; preventive health care led to improved health and performance over time; less special education programs were needed; less juvenile justice delinquency and less criminal activity; less welfare dependency; owned their own home; and more likely to attend college or were employed (FPG Child Development Institute, 2000; Kostelnik & Grady, 2009; Reynolds, Temple Robertson, & Mann, 2001; Schweinhart et al., 1993).

Recent studies not only support these findings for children at-risk, but show positive gains for all children across all socio-economic spectrums who attend a quality Pre-K program, “Although the most enduring effects on school success and crime prevention are found among economically disadvantaged children, preschool programs can promote well-being across the entire socio-economic spectrum” (Reynolds, Temple, Ou, Arteaga, & White, 2011, p. 360).

A recent study, *Starting Out Right: Pre-K and Kindergarten* (Hull, 2011), examined two scenarios: no Pre-K and full-day kindergarten vs. Pre-K and half-day kindergarten. A Pre-K and a full day kindergarten present the best combination, however, the findings support that between the two options studied, the combination of Pre-K and half-day kindergarten was significantly better for student academic success versus no Pre-K and full day kindergarten. The findings included:

Students who attend Pre-K and half-day kindergarten are more likely to have higher reading skills by the third grade than students who attend full-day kindergarten alone. . . . The chances of a third-grader reaching the advanced “Extrapolation” reading level increased by a substantial 18% if students attended

Pre-K and half-day kindergarten rather than full-day kindergarten alone. . . . The impact of Pre-K and half-day kindergarten was the greatest for Hispanic children, black children, English Language Learners (ELL) and children from low-income families. (Hull, 2011, Summary)

Numerous studies support the findings that Pre-K benefit children, families, communities, and taxpayers while closing the achievement gap between socio-economic levels and racial and ethnic groups (Barnett, 2008; Boykin & Noguera, 2011; Center on the Developing Child at Harvard, 2007; Klein & Knitzer, 2007; Kostelnik & Grady, 2009; NGA, n.d.; Zigler, Gilliam, & Barnett, 2011).

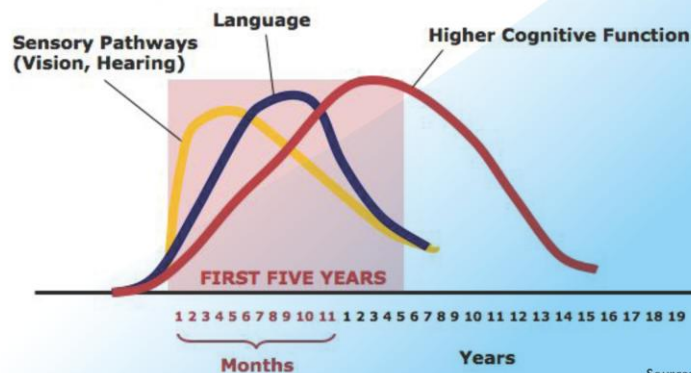
Early Brain Development

The ‘science’ of early childhood development explains the reasoning behind these findings. With the advancement in technology, “Neuroscience and child development research address the *why and what questions* about investing in young children. The applied sciences of intervention and program evaluation attempt to answer questions about *when and how*” (Center on the Developing Child, 2007, p. 2). “Researchers are now able to present a unified framework that can guide priorities for science-based early childhood policies and practices that are grounded in a combination of cutting-edge neuroscience, developmental-behavioral research, and program evaluation” (Center on the Developing Child, 2007, p. 3) (see Figure 2).

Neuroscience explains how early experiences are mostly responsible for whether a child has a strong or weak foundation for all future learning, behavior, and health. The brain is composed of billions of highly integrated sets of neural circuits that are ready and “wired” for interaction (Center on the Developing Child, 2007). This wiring occurs through active engagement by the child. Children require live interactions and exploration for optimal brain development. “Genes determine when circuits are formed,

Neural Circuits are Wired in a Bottom-Up Sequence

(700 synapses formed per second in the early years)



Source: *First Five Nebraska*. Reprinted with Permission.

Figure 2. Neural circuits are wired in a bottom-up sequence.

but a child’s experiences shape how that formation unfolds” (Center on the Developing Child, 2007, p. 3).

Wiring of the Brain

Within each of these brain areas are millions of neurons, or nerve cells, which send messages to each other across synapses. These trillions of nerves and synapses and the pathways they form make up the “wiring” of the brain; they allow all of the various areas to communicate and function together in a coordinated way. The number and organization of connections in the brain influence everything from the ability to recognize letters of the alphabet to facility at managing complex social relationships. In most regions of the brain, no new neurons are formed after birth. Instead, brain development consists of an ongoing process of wiring and re-wiring the connections among neurons. (Hawley & Gunner, 2000, p. 2)

Pruning Process

New synapses between cells are constantly being formed, while others are broken or pruned away. This happens throughout life. However, in early childhood the

brain is genetically programmed to produce more synapses than it will ultimately use. Indeed, by 8 months of age a baby may have an astounding 1,000 trillion synapses in his brain! This blooming of synapses happens at different times in different areas of the brain. Development then proceeds by keeping the synapses that are used and pruning away those that aren't. (Huttenlocher & Dabholkar, 1997, as cited in Hawley & Gunner, 2000, p. 2)

Use it or Lose it

The brain prunes away what it does not use, increasing its efficiency. When a child is deprived of normally expected experiences in the early year – experiences that wire the brain to respond, the child is left without the appropriate tools to act and react, actions that would have come naturally if the appropriate wiring would have occurred (Center on the Developing Child, 2007). Some areas of the brain, such as those which help us see clearly, become less changeable when the pruning process is over, the “windows of opportunity” closes. Nigel Daw (2009) explained how an experiment was conducted by Hubel and Wiesel in 1963 on baby kittens, in which one eye was stitched shut for a period between four weeks and four months after birth. After the eye was opened, the kittens were blind and remained virtually blind or with severe abnormalities. The same experiment conducted on adult cats produced no loss of sight. Experiments on monkeys produced the same results. Their findings signify a definite critical period of maturation during which deprivation produces the cortical deficit (Hubel, 1995).

We now also understand the vital link between emotions and learning. Emotional development is formed very early in life (Jensen, 2009; Perry, 2001). Infant brains are wired for only six emotions: joy, anger, surprise, disgust, sadness, and fear (Ekman, 2003 as cited in Jensen, 2009, pg. 15). The child must have experiences *early* in life to help form the other emotions and feelings that transcend into a secure and emotionally stable and healthy person. Experiences children need *before* the age of three for healthy

emotional development include: a primary caregiver who provides stable, consistent and unconditional love, guidance, and support; safe, predictable environments; environments rich with language that is reciprocated through live interactions; and interactions that provide a reciprocal ‘serve and return’ exchange (Jensen, 2009). This process “is most crucial during the first 6-24 months of infants’ lives and helps them develop a wider range of healthy emotions, including gratitude, forgiveness, and empathy” (Jensen, 2009, p. 15). The environments in the early years are most critical to healthy emotional development:

Children develop in an environment of relationships that begins within their family, extends into their community, and is affected by broader social and economic resources. From early infancy, they naturally reach out for interaction through such behaviors as babbling, making facial expressions, and uttering words, and they develop best when caring adults respond in warm, individualized, and stimulating ways. In contrast, when the environment is impoverished, neglectful, or abusive, the result can be a lifetime of increased risk for impairment in learning, behavior, and health. (Center on the Developing Child, 2007, p. 3)

When a baby cries and the adult responds predictably to the baby’s cries, the baby forms the foundation for safety and security, allowing the infant to focus attention on exploring and ‘taking in’ their environment, wiring the brain for healthy emotions. On the other hand, when the baby’s cries are only sporadically met or ignored, the infant will focus on survival, ensuring the needs are met (Lieberman & Zeanah, 1995 as cited in Hawley & Gunner, 2000). “Infants and children who are rarely spoken to, who are exposed to few toys, and who have little opportunity to explore and experiment with their environment may fail to fully develop the neural connections and pathways that facilitate later learning” (Hawley & Gunner, 2000, p. 3). Adversely, children who receive sensitive, responsive care, form secure attachments to their parents and other caregivers in the first years of life. These relationships, “lay the foundation for emotional

development and help protect them from the many stresses they may face as they grow” (Hawley & Gunner, 2000, p. 3). Unfortunately, for many low socio-economic children, anxious attachments formed in poverty become the basis for full-blown insecurity during the early childhood years. “In impoverished families there tends to be a higher prevalence of such adverse factors as teen motherhood, depression, and inadequate health care, all of which lead to decreased sensitivity” (van Ijzendoorn et al., 2004 as cited in Jensen, 2009, p. 15).

The impact of poverty and other unhealthy environmental conditions on the brain is not a pretty picture, however, how quickly (early childhood programs) and how well (quality) intervention occurs and children adapt to school, forecasts long-term schooling outcomes (Stipek, 2001). Many researchers agree that the earlier the interventions the better, due to the sensitive time when the brain is developing. This is primarily from birth to age five, when the brain is in the wiring and pruning stages. Researchers who studied children with many challenges in their lives but still met with success, found they all had at least one stable, supportive relationship with an adult (usually a parent, relative, or teacher) beginning early in life (Werner & Smith, 1992).

Strong evidence now links preventive and early intervention *high-quality Pre-K* programming as a key to help establish a child’s ability to succeed in school and set the foundation for a healthy, productive life, intervening early to overcome at-risk factors.

What is Quality Early Education?

The National Association for the Education of Young Children (NAEYC, 2008) outlined 10 standards that define excellent program guidelines for young children. These standards denote high-quality and provide an accreditation system to measure whether

programs meet those standards: (a) promote positive relationships for all children and adults; (b) implement a curriculum that fosters all areas of child development—cognitive, emotional, language, physical, and social; (c) use developmentally, culturally, and linguistically appropriate and effective teaching approaches; (d) provide ongoing assessments of child progress; (e) promote the nutrition and health of children and staff; (f) employ and support qualified teaching staff; (g) establish and maintain collaborative relationships with families; (h) establish and maintain relationships and use resources of the community; (i) provide a safe and healthy physical environment; and (j) implement strong program management policies that result in high-quality service. These standards provide the platform for a ranking of quality programming in Pre-K.

Categories of Quality Programming

There are three categories of quality in Pre-K: high, medium, and poor/low. Children in medium quality programs are safe and cared for but encounter little interaction with adults and limited opportunities to stimulate optimal development. (Gantz & Lanzer, 2000). Children in low quality programs have experiences that prevent them from enhancing development and are associated with nutrition, sanitary and other health needs that are not met and environments that are not safe (Peisner-Feinberg et al., 2000, cited in Kostelnik & Grady, 2009). Quality for most early education and child care programs around the country are at the medium level (Peisner-Feinberg et al., 2000). A study conducted in 1995, Cost, Quality, and Child Outcomes Study [CQO], examined more than 400 Pre-K or child care centers in four states and found limited high quality programs. The research benefits of Pre-K are redeemed when children experience *high-quality* programming, “Medium-quality programs are not strongly associated with

optimal childhood learning and therefore represent lost opportunities for high cognitive or social achievement” (Kostelnik & Grady, 2009, p. 22). Poor quality programs not only represent lost opportunities for development, but may impede long-term development, with poor social skills, delays in language, more frequent displays of aggression and behavior problems, delays in pre-reading skills, and other inappropriate behaviors (Children’s Defense Fund, 2006). Unfortunately for families of poverty, poor quality early childhood education and child care programming is all they can afford.

High-Quality Pre-K Program Criteria

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 learning; (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). Specifically, early childhood curriculum should reflect:

- The way young 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 the 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 academic achievement (NAEYC, 2009).

Programs 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). 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 misunderstandings 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).

DAP environments for children include child development in curriculum. Planned opportunities for learning should be meaningful and relevant as children of this age have limited capacity for abstract thinking. 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; NAEYC, 2009; Copple & Bredekamp, 2009b).

Furman (2000) reported in his article, "In Support of Drama in Pre-K," there was a positive correlation between children who spend time in dramatic play experiences in early childhood and standardized test scores. He attributed this cognitive development to the enhancement of early literacy and language skills through the play that was a part of these experiences. However, this play is not random or chaotic. Rather, teachers facilitate intentionally planned opportunities for learning through play. Language and literacy opportunities and engaging the learner are essential in a Pre-K environment as this is the foundation for which literacy and reading skills are formed.

Role of Pre-K Teacher

The role of the teacher is critically important in an early education environment as the teacher must understand intentional teaching as it relates to DAP and development in each domain in order to achieve the benefits of a high-quality program (NAEYC, 2009). As teachers create the environment and consider curriculum for the children they work with, they must always consider the outcomes they seek. “Even in responding to unexpected opportunities—’teachable moments’—intentional teachers are guided by the outcomes the program is trying to help children reach and by their knowledge of child development and learning” (Copple & Bredekamp, 2009a, p. 34). Curriculum, along with the staff, determines if this is a mediocre or high-quality program, referring to the *quality* elements.

The teacher also plays a vital role in setting up the physical environment, which is another crucial element in early education, reflecting the active engagement needs of the child. Nebraska’s Core Competencies for Early Childhood Professionals (2009) details how teachers must create culturally, linguistically, safe, nurturing, and “inviting” environments to promote the child’s optimal development in supporting the healthy development of a child’s social, emotional, and cognitive domains. Physical environments should allow for free movement and motor development to exercise creatively. The younger the child, the more the daily schedule should reflect more routine for physical and emotional needs rather than activities. Early education routines and consistent schedule allows for a large amount of centers or choice time, meals that are guided by the Nutrition plan outlined by the USDA food guideline, outside time, language experiences, reading books, and play. These elements are a part of the daily

program with a variety of materials, rotated routinely, to encourage exploring as they learn to solve problems. The curriculum should be consistent to meet children's expectations and developmental levels. All of these elements are reflected in Rule 11 guidelines for Pre-K classrooms in Nebraska public school districts.

Model Program: Educare

Nebraska is fortunate to be the founder and home of a national model and concept in high-quality prevention and early intervention program, Educare. Educare is a new early childhood education and care program, built on the concept of providing year-round care and education for 'at risk' children birth to age five (Educare Centre of Omaha, n.d.). Its concept is "dedicated to helping families raise strong and healthy children. We believe that the best way to do this is to form a partnership with families and children. These partnerships are based on mutual trust, understanding, respect and common goals" (Educare, n.d.).

Educare is funded by the Susan A. Buffett Foundation, which began in Omaha, Nebraska in 2000. It operates in partnership with Omaha Public Schools.

United by the common goal of providing a better future for children and their families, organizers replicated the program established in 2000 by the Ounce of Prevention Fund in Chicago's inner city. The Ounce of Prevention's Educare center has become a national model for the effective delivery of comprehensive early childhood care and education in an urban setting. (Educare, n.d.)

The third Educare program opened in Lincoln in the fall of 2012, operating in partnership with Lincoln Public Schools, University of Nebraska-Lincoln, and Community Action Partnership organizations of Lancaster and Saunders Counties.

Nebraska Pre-K Grant Program

Today in Nebraska there are 175 Pre-K programs operated by Nebraska school districts or Educational Service Units (ESUs) working with school districts (NDE, 2011d). All Pre-K classrooms operated by Nebraska schools or ESUs in partnership with Nebraska schools are required to follow Rule 11, *Regulations for Pre-K Grant Program*. Rule 11 reflects research-based elements of high-quality Pre-K program criteria intended to produce strong outcomes for children (Nebraska Department of Education [NDE], n.d.b). The program provides a preventive and intervention model to support positive development in all domains early in a child's life, especially targeted for children at-risk.

Many of these Pre-K programs began through grant funding provided through Nebraska Education Department's *Nebraska Pre-K Grant Program*. In 2009-10, 71 of Nebraska's 254 school districts and Educational Service Units used Pre-K program grant funds to serve 3,042 children (NDE, 2010b). Each Nebraska Early Childhood grant funded project receives funding for up to one-half of the total operating budget of the project per year on a continuing basis, subject to availability of the funds. A public school or an educational service unit is the fiscal agent.

The program is intended to support the development of children in the birth to kindergarten age range through the provision of comprehensive Pre-K center-based programs. In most cases the projects expand and/or combine with existing Pre-Kindergarten programs funded through district, federal, or parent fees, including Head Start, targeted for at-risk children.

Bridging the Gap: Head Start and Pre-K Grant Programs

Head Start is a federally funded early education program that began in the early 1960s to support the needs of ‘at risk’ families and children. This program is associated with the initial study and results of the Perry Preschool Project. It is now a national federally funded program 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, infant through five years, that come from vulnerable families (Administration for Children and Families, 2010). Specifically, the program provides grants to local public and private non-profit and for-profit agencies—not schools or state agencies—to provide comprehensive child development services to economically disadvantaged children and families, with a special focus on helping preschoolers develop the early reading and math skills they need to be successful in school (Administration for Children and Families, 2010).

Ninety-three Nebraska counties are served by Head Start services. Current Head Start and Early Head Start services are located in 74 counties for low income children and their families. The total actual enrollment of Nebraska children served by Head Start serving children 3-5 was 4,944 in 2008-09 (Breazile, 2010). Nebraska Head Start/Early Head Start programs served 6,209 children from birth through age 5 (Nebraska Head Start-State Collaboration Office, 2009). Although Nebraska was able to expand the number of children served in 2009 when eight counties were awarded federal Head Start expansion funds, there is still a great need for quality early education and care programs in Nebraska as one compares the number of children in poverty and the number of children served in quality early education programs (Breazile, 2010). The state

allocated Pre-K expansion grant funds will help bridge the gap between Head Start services and the waiting list of children and families in Nebraska school districts. This study provided Pre-K program information of school districts and community agencies working together, combining resources to bridge the gap to serve at-risk children.

Pre-K and Achievement Gap

In 2000, Susan Urahn, of the Pew Charitable Trusts began a quest to find key, important strategies that could dramatically improve children's education success after 40 years of education reform efforts that left Pew wanting to see greater improvements. Steven Barnett, an economist at Rutgers University, urged her to examine the data on children who have had a Pre-K experience. After seeing the data, she realized that it could have a profound impact on children's school and life success and also learned that "despite decades of hard work by advocates, both foundation funding and policy makers' interest had not caught up to the research evidence on the benefits of high-quality early education" (Watson, 2010, p. 9).

After a seven year campaign by the Pew Charitable Trust to highlight the evidence of high-quality prekindergarten programs and its impact on at-risk children, the Wall Street Journal wrote that the movement and expansion of Pre-K programs in schools was "one of the most significant expansions in public education in 90 years since World War I" (Watson, 2010, p. 9). This study will seek to find how, if at all, this movement has impacted Nebraska?

Summary

According to the National Institute for Early Education Research (NIEER) (Nord et al., 2010), Pre-K enrollment nationally for 4-year-olds was 26.7%. This accounted for

approximately 1 in 4 preschool age children participating in a school-based Pre-K program. Achievement gap between lower socio-economic 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 175 preschools associated with school districts in Nebraska. School administrators in 175 schools in Nebraska are now faced with the responsibility of recognizing and providing instructional leadership for high-quality Pre-K programs in order to produce results that positively impact children and produce the academic benefits that can narrow the achievement disparities among groups of students. Research has proven Pre-K education to be a successful tool in bridging the achievement gap. Thus, it is imperative to have a better understanding of what Nebraska school administrators know and what they need to know regarding their understanding of Pre-K and curriculum in order to achieve the desired results in Pre-K programs and successfully bridge the achievement gaps among Nebraska students.

Chapter 3

Methods

Introduction

Given the critical nature of learning in the first five years of a child's life, it is imperative that school leaders are actively involved in their communities' early learning programs before students arrive for kindergarten or first grade. Missed opportunities from conception to school entry can put children behind when they start school and create barriers to achievement that can last through high school. Strong early learning leads to better educated and more employable individuals, as well as less remediation throughout the education system, benefiting all of society. (National Association of Elementary School Principals [NAESP], 2005, p. 2)

The increasing cry for raising student achievement and closing the achievement gap for at-risk children creates a compelling case to examine how Pre-K may be used as a strategy to help attain these goals. The leadership of school administrators is essential to the realization of quality preschool programming for at-risk children.

Purpose of the Study

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at-risk children. Using survey and interview data, the study gained a better understanding of what Nebraska school administrators know and understand about Pre-K and its relationship to school achievement. Additionally, the research study provided insight on factors that influence school's decisions to provide Pre-K programs. In disaggregating the data, common group perceptions were gathered, using the data to note restrictions to implementation of Pre-K programs and identify what some of these restrictions are.

Research Design

Characteristics of a mixed methods research design. Creswell (2005) suggested a mixed methods study as a suitable option to use if both quantitative and qualitative data together offers a more in depth understanding than either of the methods used in isolation. This design was chosen in order to gain as much information as possible in addressing the primary and secondary research questions, permitting additional information to be gathered. The design also allows for a thorough understanding of the perceptions of the audience (administrators) initially surveyed. A mixed methods study can also be beneficial when results of one stage of the research sets the foundation for the next phase (Creswell, 2005).

Specifically, an explanatory sequential mixed methods design was used for this study. This design is based on the collection of quantitative data first as its priority study, with qualitative data to elaborate or better identify and explain the quantitative results (Creswell, 2005). The study initially gathered data using an online survey sent to principal and superintendent administrators in school districts in Nebraska. Interviews with a selected sample of Nebraska elementary school principals and superintendents were conducted to expand on the data results gathered from the quantitative study.

Survey variables and measures. Recent long-term studies on the impact of quality Pre-K programs for at-risk children has been shown to be a successful strategy for enhancing children's development in each domain and positively impacting academic achievement (FPG Child Development Institute, 2000; Schweinhart et al., 1993). Education leaders that embrace this research can use the information to implement Pre-K strategies to help ensure that all children develop as proficient students, and narrow the

achievement gap (National Association of Elementary School Principals (NAESP), 2005). What factors impact the opportunity for school districts in Nebraska to provide Pre-K programs for at-risk children? This research study aimed to address this question.

Purpose of the Study

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at-risk children. For the purpose of this study, six sub-questions were used to guide the research project:

1. What do Nebraska elementary school principals and superintendents know about research linking children in high-quality Pre-K programs and later school achievement?
2. What do Nebraska public school principals and superintendents know about research-based high-quality criteria and curriculum in Pre-K programs?
3. To what extent do Nebraska public school principals and superintendents believe financial, facility, or human resources impact Pre-K programming in Nebraska schools?
4. Are there differences in administrators' perceptions about Pre-K programming, knowledge of research, understanding of curriculum, and availability of resources between:
 - a. elementary principals and superintendents?
 - b. schools with higher percentages of lower socio-economic and at-risk children and schools with lower percentages of lower socio-economic and at-risk children?

- c. Title I and non-Title I schools?
 - d. schools with higher and lower percentages of English Language Learners (ELL) students?
 - d. rural and non-rural school districts?
 - e. school districts with different student populations?
5. What other factors influence Nebraska public school elementary principals' and superintendents' perceptions about Pre-K programs?
 6. What types of Pre-K programs currently exist within Nebraska public schools or are associated with p Nebraska public schools?

Pilot study procedures and results. In the spring of 2010, a pilot study was conducted to help determine the important variables that would be targeted in this research study. Interviews with four Nebraska school administrators were conducted. The interview protocol examined knowledge of Pre-K research, understanding of curriculum goals of current preschool programs operated by Nebraska school districts, knowledge of high-quality criteria and best practices in Pre-K, and resources available at schools to implement Pre-K programs. The study examined connections between administrators' perceptions of Pre-K and programs implemented in Nebraska schools and to gather information on whether the availability of resources to offer programming is a barrier. Responses were disaggregated into common groupings to establish if responses were universal or if there was a difference in responses based on rural and non-rural factors, administrative position, and/ or school demographics.

The four administrators interviewed in the pilot study, varied on their administrative role at the school from superintendent, to principal and special education

director. Additionally, the administrators were located in both rural and non-rural locations. The interview protocol addressed current preschool programming at their school, Pre-K curriculum, perceptions of Pre-K, the goals for their Pre-K program in their school, and the resources, and future plans for Pre-K programs at their school. The pilot study results yielded four common themes:

1. current Pre-K programs;
2. perception of Pre-K, sub categories:
 - a. general perception, and
 - b. perception of early education on the impact of academic achievement;
3. curriculum; and
4. gaps and needs, sub categories:
 - a. services,
 - b. lack of resources,
 - c. need to educate stakeholders, and
 - d. lack of support.

The pilot study helped to formalize the purpose statement along with the additional research questions for this research study, the target audience, and the importance of analyzing the demographic data for common group responses.

Results of the pilot study revealed several elements for consideration for this research. There was discussion of the importance of Pre-K and the term quality was used, although no administrator directly described or connected Pre-K and the academic benefits as noted by the Abecedarian and Perry Preschool project research. High-quality preschool programs were mentioned by some, although the research curriculum elements

that denote high-quality were not necessarily mentioned by the same respondents. The benefits for preschool that were mentioned most frequently was in teaching kindergarten readiness skills as well as curriculum to guide IEP plans.

Comments from administrators in the pilot study noted the need for a “good early education program.” The administrator described “a good program” as one that is “aligned with the kindergarten, first grade curriculum so it’s a natural progression to the school curriculum. Alignment of the curriculum, the types of curriculum, the staff present (denotes this as) whether it is a good or great preschool,” stated the administrator when referring to the *quality* elements of preschool. It appeared that most administrators could describe to a good extent a developmentally appropriate curriculum, one which provides some kindergarten readiness curriculum. One administrator specifically spoke about providing choices, language and literacy opportunities and engaging the learner, such as the components described in the Position Statement for quality early childhood education from NAEYC (2009). It was interesting to note that this administrator raised academic achievement scores in her building, a school with a high FRL rate.

Resources or the lack of resources seemed to be a factor in the ability to provide Pre-K services in the pilot study. Resource issues ranged from a lack of financial, human, and physical space. In two of the interviews, the administrators did not speak of the option of the *Pre-K Grant Program*. In addition, the lack of quality early childhood education teachers was mentioned by most of the administrators. A lack of qualified teachers is outlined in Pre-K research, but this is usually denoted as those teachers without advanced degrees (bachelor or higher). Schools would only recruit teachers with

a bachelor or higher degree. This finding was a surprise and a research question that was intentionally added to the dissertation study.

The importance of integrating Pre-K with family services and/or parent services was noted by *all* administrators. This response prompted the additional research question in the study to find out more about current programming and how it integrates with Head Start, family support and parent education programs, as Head Start programs require parent participation.

Only one administrator mentioned that the new state law regarding the age children must be before starting kindergarten, may impact future programs.

Finally, the lack of support and understanding of early childhood education was shared in some manner by all interviewees. The administrators mentioned a ‘lack of support’ in some manner by their school district, board members, and/or other staff members in their building as their response to the last interview question, “What comments, recommendations, or final observations would you like to add that can benefit this study?” As stated by one administrator, “I don’t think a lot of our administration . . . sees the value in early childhood; they don’t really embrace early childhood . . . I don’t think there are many that think early childhood is critical – they don’t have a clue” (pilot study administrator interviewee). The dissertation study investigated possible strategies to help educate stakeholders about the benefits of Pre-K education.

Mixed Methods Study

Phase I: Quantitative research target population. The population for the first part of this mixed methods study, the quantitative survey, was school administrators in Nebraska’s 804 elementary schools throughout the 254 school districts in Nebraska.

School administrators, specifically school superintendents and elementary principals, were asked to participate in an online survey. Surveys were distributed through administrators' email addresses.

The Nebraska Department of Education (NDE) provides a listing of all Nebraska school superintendents and principals and their email addresses on the NDE web site. This web site listing is updated in January of each year. Surveys were distributed using the email addresses listed on the web page, after it updated in January 2012. Surveys that were returned for incorrect email addresses were rechecked through school district web site searches and the use of the Nebraska School Directory.

Phase I: Quantitative research and survey instrument. For Phase I of the study, confidential demographic data was gathered on each participant so common grouping could be used to analyze results. Demographic data included professional data and demographic school/district data:

1. Professional role:
 - a. Elementary principal or superintendent;
 - b. Male or female
 - c. Total years in administrator role

Professional data. Survey participants' demographic data was gathered on their role as either a superintendent or elementary principal, gender, and the number of years they have been in their administrative role.

2. Demographic school/district:
 - a. Socio-economic status (based on free and reduced lunch percentage)
 - b. Title I or non-Title I school

- c. Percentage of ELL students
- d. Rural or non-rural school
- e. Student Population school district

School district data. School districts from each of the different levels of free/reduced lunch (FRL) rates were represented. The three levels were based on Nebraska's 2010-2011 FRL average (42.8%): below average (below 37%), approximate average (37% to 46%), and above average (above 46%) (Nebraska Department of Education, 2011a).

Additionally, schools were asked to define other demographic data that includes, percentage of ELL students, and if the school is classified as a Title I school, school size and geographic area, specifically rural or non-rural.

For the purpose of this survey, Nebraska schools were divided into two classifications, non-rural and rural, using Locale codes defined by the Common Core of Data, locale codes are based on proximity to an urbanized area. Nebraska has two urban areas, Lincoln Public schools classified as Class IV and Omaha Public Schools classified as class V (Nebraska Department of Education, 2010a). Non-rural districts are defined as districts in cities, suburbs, and towns less than or equal to 35 miles from an urbanized area. Rural districts were defined as districts in rural areas as defined by the U.S. Census Bureau. To better help survey participants decipher rural or non-rural status, survey participants defined themselves as 'Rural' if they were eligible for the Rural Education Achievement Program (REAP), which follows the definition of Locale Codes. For the purpose of this survey, a school district was defined as rural if the school district is eligible for the LEA 2012 Small Rural School Achievement Program (SRSA) or 2012-

2013 Rural Education Achievement Program (REAP) funds. REAP eligibility is defined as “average daily attendance (ADA) at all of the schools served by the LEA is fewer than 500, or each county in which a school served by the LEA is located has a total population density of fewer than 10 persons per square mile; and all of the schools served by the LEA are designated with a school locale code of 7 or 8 by the National Center for Education Statistics (U.S. Department of Education, 2012).

Student population was another consideration within school districts. Even though there are only 17 districts (6.7%) classified as non-rural and 237 districts (93.3%) classified as rural in the 2007-08 for Nebraska, more than half the children in Nebraska attend non-rural school districts (Isernhagen, 2009). Thus, for the purpose of this study, schools were also divided based on school district student population. Survey respondents not only reported rural or non-rural status, they reported their school district’s student population. The five categories of division that were used in the survey are used by some state organizations, such as Nebraska Schools Activities Association (NSAA) to allow for an approximate even distribution of schools in each category. The student population categories used in this study included: (a) Less than 500 students; (b) Between 501-900 students; (c) Between 901-3000 students; (d) Between 3001-9000 students; (e) More than 9000 students.

Survey instrument procedures. The purpose of the survey was to gather data to determine administrator perception of Pre-K and its impact on student achievement for at-risk children. The sample population asked to participate in the online survey included school administrators, both superintendents and elementary principals, from across the state of Nebraska.

Before the survey was distributed, a postcard was sent to each school district informing the superintendent and the elementary principal of the survey, requesting the superintendent and elementary principals' participation. A study conducted at the University of Michigan found:

A Web survey application achieved a comparable response rate to a mail hard copy questionnaire when both were preceded by an advance mail notification. A reminder mail notification had a positive effect on response rate for the Web survey application compared to a treatment in which respondents only received an e-mail containing a link to the Web survey. Reminder mail notifications did not produce higher response rates to the Web survey for respondents who had received a prenotice. (Kaplowitz, Hadlock, & Levine, 2004, p. 100)

Additionally, the timeline for the survey, and short explanation of the importance of the study from a recognized leader in the state was included. The desire was that the mailed postcard with advance warning and encouragement by a noted professional in our state would provide a higher than average return rate, which for online surveys is approximately 26% (Hamilton, 2009). Addresses for the study were gathered by the researcher through use of the NDE's web site, through school district web site searches, and use of the Nebraska School Directory. The post cards were mailed out in mid May, two weeks prior to the availability of the online survey.

The survey questionnaire was distributed via internet. The use of an online survey was determined to be most advantageous due to the quantity of administrators and geographic distances from the researcher. Qualtrics survey software was used to develop the online survey instrument. Qualtrics was recommended to the researcher for setting up the survey by the Nebraska Evaluation and Research (NEAR) Center. Qualtrics offers web-based survey software with an array of question types, a well-designed survey development interface, good fielding/survey promotion capabilities . . . question types are

extensive . . . with a variety of special question types to choose from (Kupferman, 2008). The survey was administered one-time.

Additional survey strategies were used that align with best practices to enhance the response rate of return. According to Michael Hamilton (2009), an online Survey analyst, recommendations for conducting online surveys to produce a good return rate include: (a) utilize advanced tracking mechanisms; and (b) collect a minimum of two weeks for high-value survey. A minimum number of responses will be received after the two week period; send surveys at the beginning of the workday as they achieve higher responses rates and quicker response times. Don't send out surveys after 3:00 in the afternoon; anticipate that approximately half of the surveys will be received back within the first day. These recommendations were followed.

An online and early education publication search was conducted to seek possible survey instruments for concurrent validity, possibly something that has been used as a "gold standard" for surveys of this type. The researcher found a limited number of early education surveys online that were addressed to school administrators. The surveys that were located were developed to measure existing early education programs.

The survey was developed by the researcher and was reviewed by six experts in the field of early education, both current and past administrators. Feedback was gathered from administrators and experts in the field, and revisions to the survey were made based on the feedback. The survey was then reviewed by experts at the Nebraska Evaluation and Research (NEAR) center and additional revisions were made (see Appendix A).

The 46 item survey was intended to explore administrators perceptions of Pre-K (6 questions); research linking Pre-K and later school achievement (4 questions); high-

quality criteria and curriculum (5 questions); resources (5 questions); current Pre-K programming at their school and barriers to preschool programming (17 questions); demographic information about the survey participants (8 questions); and one open question for comments.

A four-point Likert scale was developed for the categories of (1) Perceptions of Pre-K, (2) Research, (3) Curriculum and High-quality Criteria, and (4) Resources in Pre-K. Participants were asked to respond with: “1” representing “None”; “2” representing “Little”; “3” representing “Somewhat”; and “4” representing “Mostly.” Programming and demographic questions consisted mainly of ‘Yes’ or ‘No’ responses. There was one open-ended question for participants to add any additional information they believe could help support the findings of this study.

Validity. In order to address validity of the survey, the survey was sent out first to two groups of experts for feedback on both content and expertise (Creswell, 2005). The first group was comprised of school administrators who were purposely selected to provide feedback on the survey for content purposes (see Validity for expertise information). One non-rural and two rural administrators all shared positive feedback with no suggestions for revisions. “I think it looks good. . . .” “It should give you some great information and I’d love to see the results!” “It is good! It is not a long survey, I think it is JUST RIGHT . . . not too long, not too short.”

The second group included three external experts who are very knowledgeable of Pre-K. Additionally, one of the experts has experience in state department early education and funding allocations for preschool programming. Among the second group who received the survey for analysis, were college professors with expertise in school

administration and instruction within an education department. These people all have a reputation for excellence in their noted area of expertise. Revisions to the survey were made after gathering feedback from these experts. Additional feedback from administrators with experience in state department early education programming and funding allocations for school district supported preschools. This provided useful feedback regarding a breakdown of early education funding to school districts, with other suggestions on changing some demographic information, more specifics on intended audiences, revising a question that overlapped with another question. A few additional corrections were recommended for clarity and for grammatical reasons from a combination of the reviewers. The feedback was incorporated into a revised survey.

The survey was then reviewed by an expert in quantitative research from the NEAR center at UNL. Recommendations and feedback were provided on how to set up the questions to gather the most useful information that addresses the priority question while allowing the data to be analyzed most efficiently. Additional revisions were then made to the survey instrument based on this information.

Reliability. The survey was also piloted in a graduate administrator class for analysis of reliability. The UNL NEAR center analyzed the results. The survey questions were aligned to a matrix and analyzed for reliability in relationship to the research questions. Adjustments to the instrument were made to assure for instrument reliability.

The piloted survey reliability statistic (Cronbach's Alpha) for the categories of Research was (.93) and for the category of Curriculum and High-Quality Criteria was (.76). No adjustments were made. The survey reliability statistic (Cronbach's Alpha) for the category of Perceptions of Pre-K was (.67). Further analysis proved that the rankings

were actually quite high for three of the four questions, however the low number of questions proved problematic. Thus, to adjust for reliability, two additional questions were developed and sent to three experts in the field of Pre-K for review. Recommended revisions to the questions were made and then added to the survey. Additionally, a question which scored low for reliability in this category was discussed and suggested rewording was provided by NEAR center staff. In the category of Resources, additional analysis revealed flawed coding and wording. Additionally, only three questions were analyzed. Rewording and recoding of the existing questions were done. Two additional questions were developed and sent to the three experts in the field of Pre-K for review. They were then added to the survey.

Several factors could restrain the researcher from making valid inferences from the survey participants (Creswell, 2007). These factors include non-response error, and open-ended responses. Efforts were made in modifying the survey after discussion with the NEAR center to reduce open-ended errors, noting that some may still occur.

Utilizing the expertise of UNL's NEAR Center, a Chronbach's coefficient alpha was analyzed for each category in the final survey. This element supports reliability and estimates the consistency of responses (Creswell, 2005).

Analysis of data. To support the analysis of the final survey data, the researcher utilized the expertise of the University of Nebraska at Lincoln's (UNL) 'Nebraska Evaluation and Research Center' (NEAR).

Results of the study and disaggregated data from a variety of common groups were pursued. Numeric values and codes were given for specific question and variables. The responses varied per question, thus various numerals were used along with a numeral

of “99” to represent missing variable. A numeric code was given for demographic information for survey participant including: male/female; superintendent/ principal; years at present position a. 0-5 years b. 6-10 years c. 11-15 years d. over 15 years; and information for School Districts: Rural/non-rural school; Title I / Non-Title I school; Student Population (a) Less than 500 students (b) Between 501-900 students (c) Between 901-3000 students (d) Between 3001-9000 students and (e) More than 9000 students; Free and Reduced Lunch Rate a. Below 35% b. Average 35-45% c. Above 45%; and percentage of English Language Learners (ELL) at the school: Below 7% b. Average 7% c. Above 7%.

Additionally:

- a two tailed t test was used to analyze significant differences between two subgroups.
- ANOVA and Bonferroni analysis was used to analyze data to determine significant differences between three or more subgroups.
- SPSS software package was used to analyze the information;
- a descriptive analysis of data included:
 - mean, median, and mode;
 - range of differences between highest and lowest scores;
 - standard deviation; and
 - Cronbach’s Alpha statistic are provided.

Survey implementation plan. The researcher developed a timeline to help ensure a timely manner for the development and implementation of the survey as well as to help enhance the return response rate (see Table 2).

Table 2

Timeline of Study

Timeframe	Task	Other
May 2012	IRB approval for online survey; while waiting for approval, begin acquiring email addresses of school administrators	
3 months prior to opening the online survey to targeted audience	TEST: Send out pilot survey to assure that survey can reach target participants, is accessible and responses are accurately received and collected	Possibly have someone well known or of 'authority' or prestige in the early education field, add their words of encouragement to complete the survey, again explaining the research benefits
2 weeks prior to opening online survey: SEND POST CARD	Pre-notice to school administrators informing them of an upcoming online survey, brief outline of the research benefits of the survey, also explaining possible benefits for them in acquiring results of the survey; highly encouraging/requesting their participation	
Open up the on-line survey for 10 working days		
After 5 days of survey made available	<ol style="list-style-type: none"> 1. Review the quantity of surveys completed. 2. Send out a reminder to complete the online survey, briefly explaining research benefits and possible benefits for school. 3. Begin to schedule interviews 	
After 7 days of survey made available	<ol style="list-style-type: none"> 1. Decide if phone calls to school districts should be made to encourage participation. 2. Decide if the online survey should be kept open for a few additional days. 3. If survey is to be kept open longer, send out email message. 	
After 15 days (see above)	Close survey Gather/collect Data Analyze Data	

Phase II Qualitative research: Qualitative case selection. Phase II of this study was used to enrich and enhance the data that was generated in Phase I. A qualitative research design was the second part of this mixed methods research used to examine Nebraska school administrator perceptions about Pre-K. A case study approach using purposeful sampling was chosen in order to gain an in-depth understanding of the administrator's knowledge level and perspectives about Pre-K.

A cluster sample of schools was used to select an equal portion of rural and non-rural administrators from different geographic areas within the state with different school district student populations to participate in follow up interviews. Additionally, two different levels of free/reduced lunch (FRL) rates were represented (above and below average). The three levels were based on Nebraska's 2010-2011 FRL average (42.8%): below average (below 37%), approximate average (37% to 46%), and above average (above 46%) (Nebraska Department of Education, 2011a). Initial contact was made through telephoning administrators. After initial consent was granted on the phone, an informed consent was mailed/emailed out seeking administrator's permission to interview (Appendix C).

Interview protocol. The interview data was collected through phone or skype interviews using an interview protocol (see Appendix D). The interview protocol was slightly modified after analysis of the quantitative data to reflect the results from the survey. This was in accordance with procedures outlined for explanatory sequential design mixed methods research that utilizes qualitative data to elaborate or better identify and explain the quantitative results (Creswell, 2005). The following questions were used as the basis for the semi-structured open-ended interview protocol:

Question stem: What

1. . . . Pre-K program currently exists in your school/district?
2. . . . is your perspective on Pre-K?
3. . . . data on Pre-K /research do you believe could best benefit your school district, community and children?
4. . . . are ways that Pre-K could be beneficial to your district/school?
5. . . . is the role of Pre-K particularly for students with ‘at risk’ factors?
6. . . . resources does your district devote to Pre-K programming, particularly preschool?
7. . . . is your perception of appropriate preschool curriculum?
8. . . . efforts are made to educate the stakeholders in your community on Pre-K?

Data collection. The data for the interviews was collected through phone interviews and skype interviews. The interview collection process was selected due to distance, travel constraints and consistency of the interview process. The audio recorded interviews were conducted over a three month period during the summer of 2012. Detailed perceptions were collected using the interview protocol with probes (see Appendix D). The interviews were later transcribed and analyzed.

Research permission and ethical considerations. Each participant agreed to be interviewed and signed a consent letter before the interview (see Appendix C). The letter was sent/emailed prior to the interview but only after an initial phone call was initiated by the researcher describing the project and requesting their assistance to be interviewed. Confidentiality of the participant, school and school district was noted in both the consent letter and the interview protocol. The consent letter contains information on the purpose

of the research and how the results of the research study were used. All participants requested a summary of the findings of the study which the researcher offered to email in late fall.

Data analysis. Through a process of transcribing, organizing the data, analyzing the data for major topics then coding and condensing the codes, common themes were identified (Creswell, 2007). During the process, marginal notes were outlined to better note relationships among common themes (Huberman & Miles, 1994).

Each interview was transcribed verbatim in order to ensure for accuracy and to better identify for commonalities and coding (Creswell, 2007). Tapes were securely stored with the researcher in her home. Participants' demographic information were shared in common groupings only (male/ female; superintendent/ principal; school district student population; and percentage of Students on Free and Reduced Lunch) to ensure confidentiality of participants.

Summary

Research shows that Pre-K has great potential for providing a barrier to the negative impact of multiple environmental at-risk factors for children. For children living in poverty, it can provide the support needed for proper development, which often exceeds what their parents can provide (DePanfilis, 2006). It is important to have a better understanding of what Nebraska school administrators know and what they need to know regarding their understanding of Pre-K in order to achieve the desired results in Pre-K programs and successfully begin to bridge the achievement gaps among Nebraska students.

Chapter 4

Quantitative Results

Purpose

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K education and its impact on student achievement for at-risk children. The research study examined factors that might influence school administrators' decisions to provide Pre-K programs. Demographic data were gathered from each participant so common group data could be used to better analyze results. In disaggregating the data, common group perceptions were gathered, using the data to note restrictions to implementation of Pre-K programs and to identify what some of these restrictions are.

Research Questions

For the purpose of this study, six sub-questions were used to guide the research project:

1. What do Nebraska elementary school principals and superintendents know about research linking children in high-quality Pre-K programs and later school achievement?
2. What do Nebraska public school principals and superintendents know about research-based high-quality criteria and curriculum in Pre-K programs?
3. To what extent do Nebraska public school principals and superintendents believe financial, facility, or human resources impact Pre-K programming in Nebraska schools?

4. Are there differences in administrators' perceptions about Pre-K programming, knowledge of research, understanding of curriculum, and availability of resources between:
 - a. elementary principals and superintendents?
 - b. schools with higher percentages of lower socio-economic and at-risk children and schools with lower percentages of lower socio-economic and at-risk children?
 - c. Title I and non-Title I schools?
 - d. schools with higher and lower percentages of English Language Learners (ELL) students?
 - d. rural and non-rural school districts?
 - e. school districts with different student populations?
5. What other factors influence Nebraska public school elementary principals' and superintendents' perceptions about Pre-K programs?
6. What types of Pre-K programs currently exist within Nebraska public schools or are associated with public schools in Nebraska?

Research Method

An explanatory, sequential mixed methods design was used for the study, collecting quantitative, survey data first as the priority study, with qualitative data to elaborate and explain the quantitative results (Creswell, 2005).

Efforts were made to maximize the survey return rate. Before the survey was distributed, a postcard was sent to each school district superintendent and elementary principal requesting their participation in the online survey. The post card was sent two

weeks before the online survey was available. Additionally, a short explanation of the importance of the study from a recognized leader in the state requesting their participation, was included. It was hoped that advance warning and encouragement by a noted professional in our state would provide a higher than average return rate, which is 26% for online surveys (Hamilton, 2009). Email addresses and postal addresses for the administrators were gathered by the researcher through use of the NDE's web site.

Additional survey strategies were used that align with best practices to enhance the return rate. Recommendations given by Michael Hamilton (2009), an online survey analyst, were followed: (a) keeping the survey open for over two weeks for high-value survey; (b) sending the survey and reminders at the beginning of the workday to achieve higher response rates and quicker response times; and (c) send out a survey reminder.

Instrument

Qualtrics survey software was used to implement the survey instrument online. The survey was developed by the researcher and was reviewed by five experts in the field of early education, both current and past administrators (see Chapter 3). The 46 item survey was intended to explore administrators' perceptions of Pre-K (6 questions); administrators' perceptions of research linking Pre-K and later school achievement (4 questions); administrators' perceptions of high-quality criteria and curriculum (5 questions); administrators' perceptions of resources (5 questions); current Pre-K programming at Nebraska school/districts (17 questions) and limitations to offering Pre-K programs; demographic data (7 questions); and one open ended question for comments that may support the purpose of the study.

A four-point Likert scale was used for the categories of (1) Perceptions of Pre-K, (2) Research, (3) Curriculum and High-quality Criteria, and (4) Resources in Pre-K. Participants were asked to respond with: “1” representing “None”; “2” representing “Little”; “3” representing “Somewhat”; and “4” representing “Mostly.” Programming and demographic questions consisted mainly of ‘Yes’ or ‘No’ responses.

Survey Participants

School district participation. The sample population chosen for the study was all Nebraska public school district superintendents and elementary principals in the 254 school districts. Two hundred and eight (208) administrators participated in the survey and 204 completed the entire survey. Of these 204 survey participants, 138 school districts were represented for a school district response rate of 59%.

Superintendent participation. Of the 254 school districts, there are 241 superintendents, thus 13 school districts share superintendents. One non-rural school district did not participate in the study. Eighty-nine of the 240 superintendents responded for a superintendent return rate of 37%.

Elementary principals. All elementary principals were invited to participate in the survey in Nebraska’s 804 public elementary schools. One non-rural school district did not participate in the study. Of the 534 unduplicated elementary principals that were eligible to respond, 111 responded for a return rate of 21%. Eight additional survey participants were not elementary principals or superintendents (see Table 3).

Of the 111 principals that responded to the survey, the gender was almost evenly distributed with 55 males and 56 females responding, while 76 males and 12 female

Table 3

Administrator Titles

#	Answer	Principal	Superintendent	Other	Total
1	Principal	111	0	0	111
2	Superintendent	0	89	0	89
3	Other	0	0	8	8
	Total	111	89	8	208

superintendents participated in the study. Overall, there were 131 male and 68 female participants.

Administrators also provided their years of experience; 60% of the superintendents who responded to the survey were in their present position five years or less and 26% were superintendents for a minimum of 6 years and up to 10 years. Thus, 86% of superintendents that participated have been a superintendent 10 years or less. Seven superintendents who responded were superintendents between 11 and 15 years, while 6 superintendents had been in their position over 15 years.

For principals, the years of experience was more evenly divided; 34% of principals responding to the survey were in their position for 5 years or less, while 32% were in their position between 6 and 10 years. Fifteen percent were principals between 11 and 15 years and 19% were principals for more than 15 years.

A representation of 59% of school districts in Nebraska who participated in the survey was determined to be sufficient for the data to address the purpose of the study. This allowed the researcher to extract some conclusions and provide some common group and subgroup analysis.

Demographic School District Data

School/district and geographic data was gathered from each participant in order to better analyze survey results. Data was disaggregated not only by superintendent and elementary principal, additional disaggregated data into subgroups that included: (a) Free and Reduced Lunch (FRL) percentage Schools; (b) Title I and Non-Title I schools; (c) schools with higher and lower percentages of English Language Learners (ELL) students; (d) rural and non-rural school districts; and (e) school districts with different student populations. Disaggregated data was used to determine: Differences in administrators' perceptions about Pre-K; Knowledge of research; Understanding of curriculum; and Availability of resources between subgroups of school districts.

Subgroup (a): Free and reduced lunch (FRL) percentage schools. Different levels of free/reduced lunch (FRL) rates are used to represent socio-economic status of students. The three levels were based on Nebraska's 2010-2011 FRL average (42.8%): below average (below 37%), approximate average (37% to 46%), and above average (above 46%) (Nebraska Department of Education, 2011a) (see Table 4).

Table 4

Subgroup: Free and Reduced Lunch Percentage Schools

#	Answer	Principal	Superintendent	Other	Total
1	Below 35%	35	25	1	61
2	Average 35-45%	23	32	1	56
3	Above 45%	50	31	6	87
	Total	108	88	8	204

Subgroup (b): Title I vs. non-Title I schools. Administrators' responses were disaggregated into Title I school districts and Non-Title I school districts to illustrate the number of schools represented in each category (see Table 5).

Table 5

Subgroup: Title I and Non-Title I Schools

#	Answer	Principal	Superintendent	Other	Total
1	Title I School	74	70	7	151
2	Non-Title I School	34	18	1	53
	Total	108	88	8	204

Subgroup (c): English Language Learners (ELL) percentage schools.

Administrators' responses were disaggregated according by the percentage of ELL students in their school district (see Table 6) based on the state average of 7% for the 2010-2011 state average. The three levels included below 7%; average at 7%; and above 7% (see Table 6)

Table 6

Subgroup: English Language Learners (ELL) Percentage Schools

#	Answer	Principal	Superintendent	Other	Total
1	Below 7%	79	76	4	159
2	Average 7%	8	2	0	10
3	Above 7%	22	10	4	36
	Total	109	88	8	205

Subgroup (d): Rural and non-rural schools. Administrator responses were disaggregated into rural or non-rural responses. Nebraska schools were divided into two classifications, non-rural and rural (see Table 7), using Locale Codes defined by the Common Core of Data. Locale Codes are based on proximity to an urbanized area. Nebraska has two urban areas, Lincoln Public schools classified as Class IV and Omaha Public Schools classified as class V (National Center for Education Statistics, 2010). Non-rural districts are defined as districts in cities, suburbs, and towns less than or equal to 35 miles from an urbanized area. For the purpose of this survey, survey participants were asked to define their school district as rural or non-rural based on the school district's eligibility for the 2012 Small Rural School Achievement Program (SRSA) or 2012-2013 Rural Education Achievement Program funds (REAP). REAP is defined as

average daily attendance (ADA) at all of the schools served by the LEA (local education agency) is fewer than 600, or each county in which a school served by the LEA is located has a total population density of fewer than 10 persons per square mile; and all of the schools served by the LEA are designated with a school locale code of 7 or 8 by the Department's National Center for Education Statistics. (U.S. Department of Education, 2012)

Table 7 shows the representation of rural and non-rural schools.

Table 7

Subgroup: Rural and Non-Rural Schools

#	Answer	Principal	Superintendent	Other	Total
1	Rural	58	68	4	130
2	Non-Rural	51	20	3	74
	Total	109	88	7	204

Subgroup (e): School district student population. Survey respondents reported their school district's student population (see Table 8 and Figure 3). The five categories of division used in the survey are used by some state organizations, such as Nebraska Schools Activities Association (NSAA) to allow for an approximate even distribution of schools in each category. These categories used in the survey, included: (a) Less than 500 students; (b) Between 501-900 students; (c) Between 901-3000 students; (d) Between 3001-9000 students; (e) More than 9000 students.

Table 8

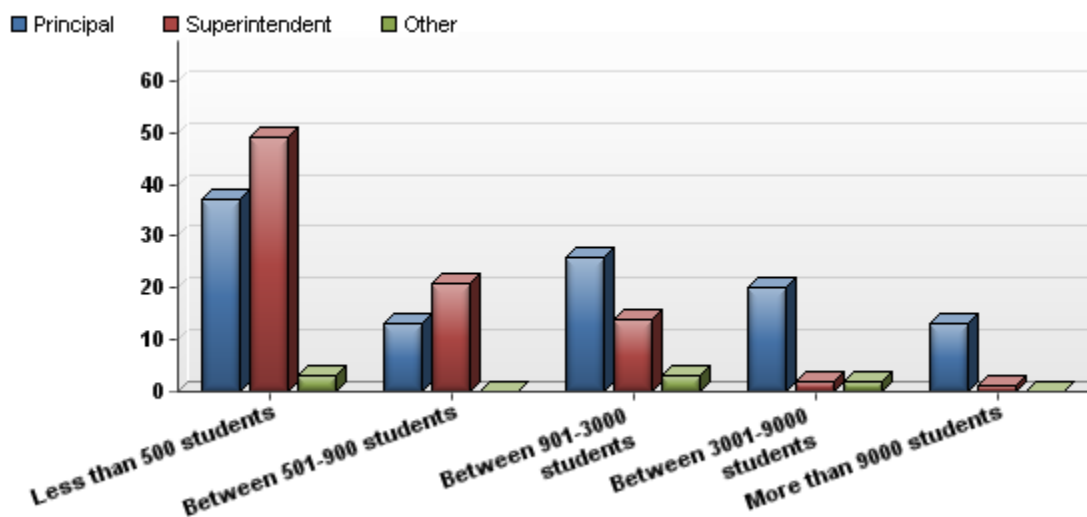
Subgroup: School District Student Population

#	Answer	Principal	Superintendent	Other	Total
1	Less than 500 students	37	49	3	89
2	Between 501-900 students	13	21	0	34
3	Between 901-3000 students	26	14	3	43
4	Between 3001-9000 students	20	2	2	24
5	More than 9000 students	13	1	0	14
	Total	109	87	8	204

Figure 3 represents the data in Table 8 using a visual to display the sample population of administrators who responded to the survey.

Findings of the Study

Introduction. The format for an explanatory, sequential mixed methods design as suggested by Creswell and Plano Clark (2007) entails reporting quantitative findings first, which are found in this chapter, with qualitative data following the quantitative data



Principals (first column); Superintendents (second column); and Other (third column).

Figure 3. School district student population.

(see Chapter 5). To address Research Questions (1-3), survey participants responded to questions in four categories: (a) administrators' perceptions of Pre-K (6 questions); (b) research linking Pre-K and later school achievement (4 questions); (c) high-quality criteria and curriculum (5 questions); and (d) resources (5 questions). These responses are found in "Survey Results by Category," *Sections 1-4*.

Research question #4, which examined differences in administrators' perceptions based on school district demographic information, is discussed in "Significant Differences in School District Subgroups," *Sections 5-9*. Additionally, a new subgroup emerged in the study, "Schools with Preschools" and "Schools without Preschools," and is examined in *Section 10*.

In *Sections 11-12*, "Pre-K Programming in School Districts" the survey data results examined factors that impact school districts in pursuit of funding to operate a Pre-K programs and current Pre-K programs in Nebraska public school districts were

examined (17 questions). In *Section 11*: “Motivation, Limitations and Factors that Impact Access to Pre-K Programs,” data addresses Research Question #5; the final section, “Pre-K Programs in Nebraska Schools” aligns to Research Question #6 and is addressed in Section 12.

Survey Results by Category

Survey participants responded to questions in four categories using a 4-point Likert scale for each survey item: Perceptions of Pre-K (6 questions); Research linking Pre-K and later school achievement (4 questions); High-quality criteria and curriculum (5 questions); and Resources (5 questions). Survey category ratings are shown in Table 9. Overall results are given in this section, with the mean rating in each category, and the highest and lowest ranked item in each category.

The highest rated category was administrators’ perceptions in “Curriculum” while “Resources” was the lowest rated category (See Table 9).

Sections 1 through 4 will examine overall survey results by category, and each survey item in the category. Data is also disaggregated for the subgroup of elementary principals and superintendents to address the Research Questions 1 through 3. Significant differences between elementary principals and superintendents are also noted. Two tailed t tests were used to determine significant differences between the subgroups supported by SPSS software package to analyze the information;

Quantitative survey results by subcategory.

Section One: Perceptions of Pre-K. Survey items 8 through 13 asked participants about their “Perceptions of Pre-K.” Questions 8-13 showed a high level of agreement with an overall category mean rating of 3.11. The item, “What importance is placed on

Table 9

Category Survey Mean

Category and Cronbach Alpha	Perceptions of Pre-K (6 questions) (.803)	Research (4 questions) (.841)	Curriculum (5 questions) (.717)	Resources (5 questions) (.787)
Mean	3.11	3.16	3.54	2.77
Highest Ranked Item	“Importance of Pre-K” 3.50	“Understanding of Pre-K Research and Academic Benefits” 3.37	“Focus on Language and Vocabulary” 3.80	“Financial Resources Impact Pre-K” 3.13
Lowest Ranked Item	“Conversations about Increasing Pre-K Programs” 2.99	“Understanding of Pre-K Research and Long Term Benefits” 2.98	“Focus on Writing Name” 3.41	“Teacher Resources Impact Pre-K” 2.50

Pre-K education in your school?” was the highest rated item (3.50), 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 (2.63). There were no significant differences between the subgroups of elementary principals and superintendents for this category or any survey item 8-13, in the category of “Perceptions of Pre-K” between elementary principals and superintendents. The reliability rating for this category was .803 (see Table 10).

Section Two: Research on Pre-K. Survey items 15 through 18 asked participants their perceptions of “Research on Pre-K” and its impact on school achievement for at-risk children. Questions 15-18 showed minimal differences in perceptions between principals and superintendents. The category overall mean was 3.16. The survey item “What do you know about the long-term academic achievement benefits for at-risk children who

Table 10

Perceptions of Pre-K

	Principal	Superintendent	Other Administrator	Overall
Question 8: Importance of Pre-K	3.56	3.40	3.63	3.50
Question 9: Emphasis on Pre-K Programs	3.49	3.25	3.50	3.39
Question 10: Increase in Pre-K Programs	2.98	2.98	3.13	2.99
Question 11: Pre-K discussion with stakeholders	3.11	3.00	3.75	3.09
Question 12: Teacher endorsed in ECE for K-2 nd	3.03	3.00	3.63	3.04
Question 13: Staff development in Pre-K	2.61	2.63	3.00	2.63

attend high-quality Pre-K programs rated the highest overall (3.37) and was the highest rated for principals (3.35) and superintendents (3.37). 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 (Perry Project Study, Abecedarian Study, etc.)?” rated the lowest overall (2.98) and was the lowest rated item in this category for principals (2.94). Superintendents rated this item the lowest (2.98) along with the survey item, “What do you know about early brain development research?” at 2.98. The reliability rating for this category was .841 (see Table 11).

Table 11

Research in Pre-K

	Principal	Superintendent	Other Administrator	Overall
Question 15: Brain development research	3.06	2.98	3.57	3.04
Question 16: Pre-K long term impact	2.94	2.98	3.71	2.98
Question 17: Cost benefits of providing Pre-K	3.20	3.23	3.86	3.24
Question 18: Long term academic benefits	3.35	3.37	3.71	3.37

Section Three: Curriculum. Survey items 19 through 23 asked participants their perceptions of “Curriculum” in Pre-K programs. The category mean rating overall was 3.54, the highest rated category by administrators. There was a significant difference between superintendent and elementary principal responses for item #21, “What level of importance should be placed on communication, talking, and expansion of vocabulary?” with principals rating this higher at 3.95 than superintendents at 3.80, ($p=.001$). This was also the highest rated survey item for principals, while superintendents rated, “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.?” the highest at 3.84. The survey item, “What level of importance should be placed on learning to write one’s name?” rated the lowest for both groups of administrators. The reliability rating for this category is .717 (see Table 12).

Table 12

Curriculum in Pre-K

	Principal	Superintendent	Other Administrator	Overall
Question 19: Identification of letters and numbers	3.25	3.39	3.71	3.33
Question 20: Writing name	3.16	3.22	3.71	3.20
Question 21: Language and vocabulary	3.95	3.80	4.00	3.89
Question 22: Learning school routines	3.42	3.34	4.00	3.41
Question 23: Development of social and emotional skills	3.87	3.84	4.00	3.86

Section Four: Resources. Survey items 24 through 28 asked participants their perceptions about “Resources” and the impact it has on access and availability to Pre-K education within their school district. The category mean rating overall was rated 2.77. This was the lowest rated category for both superintendents and elementary principals. There was a significant difference between superintendent and elementary principal responses for item 25, “To what extent do adequate building facilities have in your school/district’s ability to offer a Pre-K program?” with superintendents rating this higher at 3.13 than elementary principals at 2.84, a significant difference of $p=.043$. Superintendents rated item 26, “To what extent does accessibility to teacher resources, such as certified early childhood teachers, have in your school/district’s ability to offer a Pre-K program?” at 2.66, significantly higher than elementary principals (2.36), $p= .048$. The highest rated survey item for both principals (3.12) and superintendents (3.20) was

item #24, “To what extent do financial resources have in your school/district’s ability to offer a Pre-K program?” The survey item, “To what extent does accessibility to teacher resources, such as certified early childhood teachers, have in your school/district’s ability to offer a Pre-K program” was rated the lowest by elementary principals (2.36) while superintendents rated, “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 choices in offering a Pre-K program?” the lowest (2.62). The reliability rating for this category was .787 (see Table 13).

Table 13

Resources in Pre-K

	Principal	Superintendent	Other Administrator	Overall
Question 24: Financial resources	3.12	3.20	2.43	3.13
Question 25: Building facilities	2.84	3.13	2.57	2.96
Question 26: Teacher resources	2.36	2.66	2.57	2.50
Question 27: Family support or parent education programs	2.65	2.72	2.57	2.68
Question 28: Community resources	2.62	2.62	2.14	2.60

Significant differences among school district subgroups. School district data was further disaggregated into subgroups to examine Nebraska public school administrators’ perceptions for each category: Pre-K programming, knowledge of

research, understanding of curriculum, and availability of resources. The subgroups included: schools with higher percentages of lower socio-economic and at-risk children and schools with lower percentages of lower socio-economic and at-risk children, determined by Free and Reduced Lunch percentage rates; Title I vs. non-Title I schools; schools with lower than state average of ELL students (7%) and schools with higher than the state average (7%) of ELL students; rural and non-rural school districts; and schools with different student populations;

One-way ANOVA tests were used to look at mean differences between school district subgroups if there were three or more subgroups to determine if significant difference existed. If differences existed that may be significant, Bonferroni tests were then ran on the subgroups. T-tests were used to determine differences between subgroups that contained two variables, such as rural and non-rural subgroups. $P > .05$ is statistically insignificant.

Significant differences between the subgroups are examined in the *Sections 6-9*. During the disaggregated analysis of the survey data, another subgroup with several significant differences materialized: School districts with Pre-K programs and Schools without Pre-K programs. This subgroup emerged as the most dominant subgroup with significant differences. This subgroup is examined in *Section 10*.

Section Five: School districts with different free and reduced lunch percentages. Table 14 represents the significant different between schools with differences in students' socio-economic status, as measured by the percentage of students that qualify for Free and Reduced Lunch (FRL). School districts from each of three different levels of free/reduced lunch (FRL) rates were represented. These levels were disaggregated based

Table 14

Subgroup: Breakdown of Free and Reduced Lunch Rate Percentages in Schools

Curriculum Category	Below 35%	Average 35-45%	Above 45%	Overall
Question 19: Identification of letters and numbers	3.20	3.36	3.40	3.33
Question 20: Writing name	3.05	3.25	3.27	3.21
Question 21: Language and vocabulary	3.86	3.89	3.90	3.89
Question 22: Learning school routines	3.30	3.45	3.45	3.41
Question 23: Development of social and emotional skills	3.77	3.91	3.89	3.86

on Nebraska's 2010-2011 FRL average (42.8%): below average (below 37%), approximate average (37% to 46%), and above average (above 46%) (Nebraska Department of Education, 2011a). In all of the differences noted, there was only a significant difference between schools below the state FRL average and schools above the state FRL average. There was no significant difference noted for schools within the state FRL average and the other subgroups.

The only category with a significant difference in this subgroup was the category of "Curriculum". Schools below the state FRL average rated this category (Questions 19-23) significantly lower (3.44) than Schools with a higher FRL rate mean rating (3.58), ($p=.049$). The mean average for the category was 3.54. Table 14 displays each survey item rating within the category of "Curriculum" for schools disaggregated in the three subgroups of FRL percentages.

There were two other survey items that were significantly different between the subgroup above FRL state average percentage and schools below the FRL state average percentage. There was a significant difference within the category of “Perceptions of Pre-K” for Item 9, “As schools strive to improve student achievement, what emphasis is given to the development, continuation, or expansion of Pre-K programs to support these efforts?” School districts below the state FRL average mean rating for this item was 3.15 while school districts’ with a higher FRL average rated the item 3.55, ($p=.006$).

For Survey Item 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?” there was a mean rating of 2.29 for school districts below the FRL average, significantly lower than schools with a higher FRL at 2.73. This was a significant difference of ($p= .037$).

Section Six: Title I and Non-Title I schools. There were no significant differences between the perceptions of administrators of Title I schools and Non-Title I schools for any category. Within the category of “Curriculum,” there was one item that was significantly different between the two subgroups, and one item that rated significantly different between Title I and Non-Title I schools in the category of “Resources.” Within the category of Curriculum, the survey Item 19, “What level of importance should be placed on identification of letters and numbers in Pre-K programs?” The mean rating for Title I schools was 3.39 and Non-Title I schools 3.15, ($p=.035$).

Title I school districts rated the survey Item #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?” higher at 2.70 than non-Title I school districts’ mean rating of 2.31, a significant difference ($p = .022$).

Section Seven: Schools with different percentages of English Language Learners.

Data from school districts was disaggregated into three levels based on the percentage of ELL students in the school district. The three levels were disaggregated based on Nebraska’s schools state average of ELL students at 7%; schools below the 7% state average; and schools above the 7% state average of ELL students.

Although there were no significant differences for any category, the category of “Perceptions of Pre-K” revealed a difference of .058 between the subgroups of below 7% ELL student population and above 7% ELL student population. In this category, there were three survey items that scored significantly different between the subgroups of below 7% ELL student population and above 7% ELL student population. Within the category of “Perceptions of Pre-K,” survey Item 10, “As more preschools are implemented in school districts, to what extent have there been conversations about implementing or increasing preschool programs in your school district over the past nine months?” School districts with below a 7% ELL student population rated the item 2.90 while school districts with higher than 7% ELL student population rated it 3.37, a significant difference ($p = .011$). Table 15 displays the mean ratings for the category of perceptions in Pre-K for schools with below, average, and above the state average of ELL students in schools.

Survey item #11, “To what extent has Pre-K been discussed with stakeholders (teachers, parents, community members, school board members, etc., within your school district?” revealed a mean rating of 3.03 for school districts below the 7% ELL student

Table 15

*Category of “Perceptions of Pre-K” Administrators with Different ELL Student**Populations*

	Below 7%	Average 7%	Above 7%	Overall
Question 8: Importance placed on Pre-K at school district	3.48	3.40	3.57	3.50
Question 9: Emphasis to development, expansion, or continuation of Pre-K	3.34	3.30	3.60	3.39
Question 10: Conversations to expand Pre-K school district	2.90	2.90	3.37	2.99
Question 11: To what extent has Pre-K been discussed with stakeholders	3.03	3.00	3.39	3.09
Question 12: Are educators with endorsements in Pre-K specifically recruited for kindergarten through 2nd grade positions	3.03	2.90	3.11	3.04
Question 13: Are there Pre-K staff development opportunities	2.55	2.80	2.97	2.63

population, significantly lower than school districts with higher than 7% ELL student population (3.37), a significant difference ($p=.043$). For survey Item 13, “When your district provides staff development on the topic of curriculum, how often are there opportunities for staff development that pertain to preschool?” The mean rating for school districts with below a 7% ELL student population was 2.55 while school districts with a higher than 7% ELL student population was 2.97, a significant difference

($p = .036$). Table 15 displays each survey items 8-13, rating within the category of “Perceptions of Pre-K” for all three groups of ELL.

Within the category of Resources, there were two significant differences between the subgroups of ELL student populations below 7%; those with an average ELL student population of 7%; and those above 7% for survey items 25 and 26 (see Table 16). For item 25, school districts below 7% ELL population rated this item 3.05; school districts with an average 7% ELL population rated the item 1.50; while school districts above the 7% ELL population rated the item 2.97, ($p < .001$). For item 26, school districts below the 7% ELL student population rated this item 2.59; school districts with an average 7% ELL population rated the item 1.90; and school districts with above 7% ELL student population at 2.27, a significant different ($p = .045$).

Table 16

Administrators with Different ELL Student Populations

	Below 7%	Average 7%	Above 7%	Overall
Question 25: To what extent do adequate building facilities have in your school/district’s ability to offer a Pre-K program	3.05	1.05	2.97	2.96
Question 26: To what extent does accessibility to teacher resources, such as certified early childhood teachers, have in your school/district’s ability to offer a Pre-K program?	2.59	1.90	2.27	2.50

Section Eight: Rural schools and non-rural school districts. Table 17 displays the significant category differences between Rural and Non-Rural school districts, ub the category of “Perceptions of Pre-K.” The mean rating for the category “Perceptions of Pre-K” was significantly higher for Non-Rural School Districts (3.24) than Rural School Districts (3.01), ($p=.007$).

Table 17

Perceptions of Pre-K for Administrators in Rural and Non-Rural School Districts

	Rural	Non-Rural
Question 8: Importance placed on Pre-K at school district	3.47	3.53
Question 9: Emphasis to development, expansion, or continuation of Pre-K	3.35	3.44
Question 10: Conversations to expand Pre-K school district	2.81	3.29
Question 11: To what extent has Pre-K been discussed with stakeholders	3.02	3.21
Question 12: Are educators with endorsements in Pre-K specifically recruited for kindergarten through 2nd grade positions	2.92	3.25
Question 13: Are there Pre-K staff development	2.54	2.79

Within the category of “Perceptions of Pre-K,” survey item #10, “As More preschools are implemented in school districts, to what extent have there been conversations about implementing or increasing preschool programs in your school district over the past nine months?” Non-rural school districts mean rating for this item

was 3.29, while rural school districts' mean rating was 2.81, ($p < .001$). Survey Item 12, "Are educators with endorsements in Pre-K specifically recruited for kindergarten through second grade openings?" revealed a mean rating of 3.25 for non-rural districts, significantly higher than rural districts' mean rating of 2.92, ($p = .009$). Table 17 displays each survey item rating within the category or "Perceptions of Pre-K" for rural and non-rural schools. Additionally, survey item 24 regarding the impact financial resources have on Pre-K programming, rural schools rated the item 3.02 while non-rural schools rated this 3.32, a significant difference of $p = .009$.

Section Nine: Schools with different student populations. Data was disaggregated into five categories based on the school district's student population. The five levels of division used in the survey were also used by some state organizations to allow for an approximate even distribution of schools in each category. These categories included: (a) Schools with less than 500 students; (b) Schools between 501-900 students; (c) Schools between 901-3000 students; (d) Schools between 3001-9000 students; and (e) Schools with more than 9000 students. Item 10 was the only significant difference between any of these subgroups, "As More preschools are implemented in school districts, to what extent have there been conversations about implementing or increasing preschool programs in your school district over the past nine months?" Schools with student populations between 501-900 rated this item 2.71, while schools with student population 3001-9000 rated the item 3.48, a significant difference ($p = .007$).

*Section Ten: Schools **with** preschool programs and schools **without** preschool programs.* During the analysis of disaggregated data, the subgroup of 'Schools **with** preschool programs' (other than special education programs) and 'Schools **without**

Preschool Programs’ emerged revealing significant differences in two of the four categories. In the category of, “Perceptions of Pre-K,” the mean rating for Schools **with** preschool programs (3.25) was significantly higher than the rating for Schools **without** Preschool programs (2.85) ($p < .001$). In the category of Research, the mean rating for Schools **with** preschool programs (3.25) was significantly higher than the rating for Schools without Preschool programs (3.05) ($p = .039$). In the category of “Resources,” schools **without** preschool programs rated the category higher (3.41) than Schools with Preschool programs (2.73), but not a significant difference. Both subgroups rated the category of “Curriculum” similar with a mean rating for Schools with preschools of 3.56 while Schools without preschools rated this category 3.51 (see Table 18).

Table 18

*Schools **with** Preschools and Schools **without** Preschools Mean Ratings*

	Perceptions of Pre-K (6 questions)	Research (4 questions)	Curriculum (5 questions)	Resources (5 questions)
Mean for Schools with Pre-K	3.25	3.25	3.56	3.41
Mean for Schools without Pre-K	2.85	3.05	3.51	2.73
*Significant Difference	$P < .001$	$P = .039$	--	--

There were several significant differences for survey items within the category “Perceptions of Pre-K” between these two groups (see Table 19). The category of “Research” was also significantly differently ($p = .039$); (See Table 20). One survey item

Table 19

Category of “Research” for “Perceptions of Pre-K” for Schools with Pre-K and Schools without Pre-K

Perceptions of Pre-K Category	Mean for Schools with Pre-K	Mean for Schools without Pre-K	Significant Difference
Question 8: Importance placed on Pre-K at school district	3.76	3.11	p < .001
Question 9: Emphasis to development, expansion, or continuation of Pre-K	3.66	3.00	p < .001
Question 10: Conversations to expand Pre-K school district	3.01	2.91	--
Question 11: To what extent has Pre-K been discussed with stakeholders	3.23	2.88	P=.001
Question 12: Are educators with endorsements in Pre-K specifically recruited for kindergarten through 2nd grade positions	3.08	2.98	--
Question 13: Are there Pre-K staff development	2.81	2.35	P < .001

showed significant differences in the subgroup of Schools with Preschools and Schools without Preschools in the category of “Curriculum”. For Survey Item 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.”, the mean rating for Schools with Preschools was 3.92 while Schools without Preschools rated this 3.77, a significant difference of (p=.006). Survey Item 25, “To what extent do adequate building facilities have in your school/district’s ability to offer a Pre-K program?”

Table 20

Item Significant Differences Between Schools with Pre-K and Schools Without Pre-K

Category: Research	Mean Schools with Preschools	Mean Schools without Preschools	Significant Difference
Question 15: What do you know about early brain development research	3.10	2.97	
Question 16: What do you know about the positive long term Pre-K studies and its impact on student achievement for at risk children (Perry Project Study, Abecedarian study)	3.08	2.86	
Question 17: What do you know about the cost benefits of providing Pre-K for at-risk children?	3.33	3.11	P=.035
Question 18: What do you know about the long term academic achievement benefits for a-risk children who attend high-quality Pre-K programs?	3.42	3.29	
Cronbach Alpha .039			

Schools with a Pre-K program rated this item 2.82 while Schools without Pre-K programs rated the item 3.16, a significant difference ($p=.014$).

Pre-K programming in school districts. Additional information was gathered on motivation to offer or limit Pre-K programming in school districts and how Pre-K programs operate within the school district. Nebraska Rule 11, which governs Pre-K programming in school districts, allows some degree of flexibility. Questions 14 (a) through (h) were used to gather information *on motivation and limitations to offering Pre-K programs*, other than preschools for special needs children (addressing Research Question #5), while Survey Questions 29-45 were used to gather information *on existing preschool programming* (addressing Research Question #6).

Section 11: Motivation, limitations, and factors that impact access to Pre-K programs. Survey Item 14 asked participants to respond to the question, “What factors influence your school or district in pursuit of funding to operate a school district preschool program at this time?” Participants were given eight survey items to rank using a 4-point Likert scale, with “4” being the highest ranking (see Table 21).

The only significant difference in responses between subgroups for this question was the subgroup of “Schools with Pre-K programs” and “Schools without Pre-K programs.” The survey, “The community already provides adequate Pre-K programs” ranked significantly higher for “Schools without preschool programs” (2.46) than “Schools with preschool” programs (1.92). Additionally, for the item, “The school district does not have the funding resources to provide Pre-K services regardless of partial funding from other community or state grant funds,” was ranked significantly higher for “Schools without preschool programs” (2.39) than “Schools with preschool programs”(1.94). The overall responses and the significant differences are represented in the Table 21.

Section 12: Pre-K programs in Nebraska schools. Survey Items 29-45 addressed the current operation procedures and policies for school districts operating pre-k programs. Ninety-two of the schools surveyed have been operating a Pre-K program for four years or more with 32 schools operating a program for three years or less. Item 33 revealed 76 school districts’ pre-k program are open to all children, while 47 preschools operated through school districts are based on qualifying criteria. This item is further explored in the qualitative study (Chapter 5). Table 22 displays the qualifying criteria for

Table 21

Factors that Influence Schools to Operate a Pre-K Program

Survey Item 14: What factors influence your school or district in <i>pursuit of funding</i> to operate a school district preschool program at this time?	Overall Responses	Schools with Pre-K Programs	Schools without Pre-K Programs	Significant Difference between Schools with and without Pre-K
(a) The school district already provides adequate Pre-K programs	3.15	3.51	2.63	P < .001
(b) The community already provides adequate Pre-K programs.	2.78	2.79	2.73	--
(c) The community has some preschool programs operating and does not want to interfere with the operation or completion of these programs.	2.14	1.92	2.46	P < .001
(d) The school district does not have the funding resources to provide Pre-K services regardless of partial funding from other community or state grant funds.	2.13	1.94	2.39	P = .003
(e) The school district does not have the facilities or the space to provide Pre-K programs.	2.03	1.74	2.44	P < .001
(f) The school district does not have or cannot obtain the human resources needed for operating a Pre-K program.	1.64	1.40	1.96	P < .001
(g) The school district applied for funds through the Nebraska Early childhood grant program but was not successful.	1.36	1.32	1.42	--
(h) Providing a Pre-K program is not a priority at this time.	1.56	1.24	2.00	P < .001

some preschools and other Pre-K programming policies. Table 22 provides qualifying criteria information along with the number of children served and the ages of the children being served in Nebraska school district preschool programs.

Survey questions #43-#45 asked respondents to outline how their current Pre-K program was funded, and the community partnerships that exist to support the operations of the Pre-K program. Funding sources used to support the operation of Pre-K programs are shown in Table 23, with schools marking all funding sources that applied.

The percentage of funding that schools contribute to support the operation of the Pre-K program when in partnership with other community organizations, are shown in Figure 4.

Administrators were also asked the specific contributions they provided for the operation of the Pre-K programs if the program partners were with other community programs, marking all that applied. The responses ranked from highest to lowest with the number of responses marked in parenthesis: 1. Staff (32); 2. Equipment (29); 3. Administrative support (28); 4. Access to health services (24); 5. Transportation (22); 6. Space (21); 7. Access to Mental Health/Guidance services (16); and Other (6).

The percentage of funding that schools contribute to support the operation of the Pre-K program when in partnership with other community organizations are shown in Figure 4.

Administrator responses to support pre-K study. There was one open-ended question for participants to add any additional information they believe could help support the findings of this study, “If there is other information about Pre-K programs, policies and/or program issues for Nebraska schools you believe would be helpful for

Table 22

Pre-K Programs in Nebraska School Districts

Question	Category	Number
Question 31: What is the total number of preschool age children served by the preschool program in your district?	Less than 30	44
	Between 30-64	44
	65 or more	36
Question 32: Presuming your preschool program serves 4-year-olds, do you serve 3-year-olds in your program?	Yes	97
	No	26
Question 33: Is the preschool program offered to ALL CHILDREN in your school district or a selected group of children based on qualifying criteria?	All Children	76
	Selected group of children based on qualifying criteria	47
Question 34: Children whose family income qualifies them for participation in the free and reduced lunch program	Yes	70
	No	7
Question 35: Children who reside in a home where a language other than spoken English is used as the primary means of communication.	Yes	65
	No	12
Question 36: Children who were born prematurely or at low birth weight as verified by a physician.	Yes	63
	No	14
Question 37: Children whose parents are younger than eighteen or who have not completed high school.	Yes	50
	No	26
Question 38: Children who have been verified with a disability.	Yes	72
	No	4
Question 39: Children who qualify for or who are enrolled in the federal Head Start program.	Yes	63
	No	13
Question 40: Children who qualify for or who are enrolled in another federal Title I program.	Yes	58
	No	19

Table 22 continues

Question	Category	Number
Question 41: Children qualify because of parent's paying the child's partial or full tuition to attend (parent pay program).	Yes	35
	No	42
Question 42: Children attend because their name has been selected in a lottery system.	Yes	9
	No	67

Table 23

Funding Sources

Funding Source	School Districts
Nebraska Grant Funds	72
Head Start	26
Evan Start or Adult Education	2
Parent Education	2
Parent Pay	21
Special Education	50
Title Funds	17
Other	17

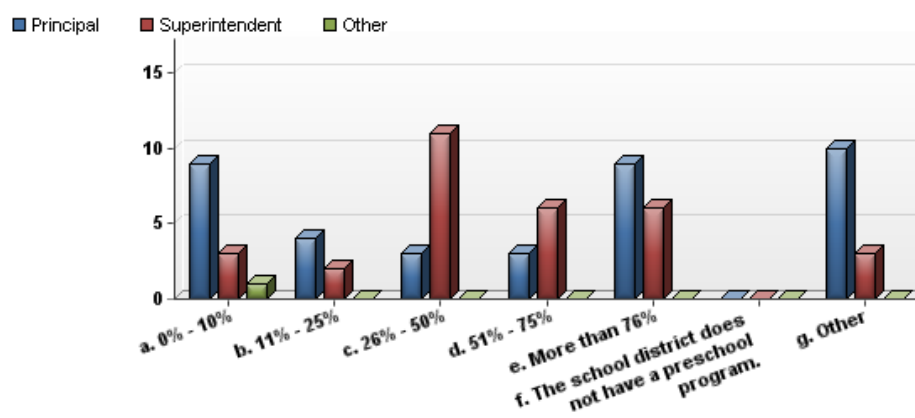


Figure 4. Percentage of funding that schools contribute.

this study, please provide this information in the space below.” Twenty-five additional comments were shared. The researcher determined that the main categories of responses for this item evolved around the topics of “Resources” and “Pre-K Programming in School Districts.”

Resources appeared to dominate the comments as shared by this administrator, “Even though the District provides reduced cost to low income children, most of our parents cannot afford this.” Within the topic of “Pre-K Programming,” several responses referred to state guidelines or Rule 11, which governs Pre-K programs in Nebraska. These responses consisted of two main areas: too many regulations or too few regulations. The overall issue of “too many regulations” appeared to the respondents to prohibit more children from being served as shared by this administrator:

The reporting systems for the state are complex and come with very little support or training. We already provide massive amounts of reports to the state at a high cost to our districts, but out of all of those the most difficult, complex, time-consuming, staff intensive, confusing, etc, is pre-school and early childhood intervention reporting. We greatly value early childhood services and see the correlation between that early intervention and success in school for children who would have been at a much greater risk without the intervention, but no one wins when there is a system over-load due to the reporting issues indicated above.

At the same time, a few other administrators shared their belief that there are not enough guidelines given in some areas that allow for too much flexibility within the structure of Pre-K, again reducing the number of preschool children served. Some thought these issues appear to prevent the most needy children from being served in a Pre-K program, as shared by this comment, “and sadly it is the rich educationally sound homes that will do it (take advantage of the program) – yes, the same ones that don’t need it- the educationally disadvantaged kids are the ones that would benefit.”

The researcher took these comments into account and integrated the comments with the open/ended question on the qualitative interview protocol. These will be discussed further in Chapter 5 (Qualitative Results) and Chapter 6 (Discussion, Conclusions and Recommendations).

Summary

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at-risk children. Administrators overall ranked the categories of "Research" about Pre-K relatively high at 3.37, and "Perceptions about Pre-K" relatively high with a mean score of 3.50. The highest ranking category was Pre-K "Curriculum", with a category mean rating of 3.87, while the category of "Resources" scored the lowest 3.13.

There were limited significant differences among school district subgroups, however, another subgroup, "Schools with Preschools" and Schools without Preschools" emerged. This subgroup showed the largest difference in any subgroup of disaggregated data based on schools' demographic information. There were twenty-five additional comments shared, mainly in the areas of "Resources" and "Pre-K Programming in School Districts." Qualitative data results to enrich and better define the survey responses are discussed in Chapter 5.

Chapter 5

Qualitative Results

Introduction

Creswell (2005) suggested a mixed methods study to offer a more in depth understanding than either a quantitative or qualitative study used in isolation. An explanatory sequential mixed methods design was used in this study, with quantitative data collected as the priority study, and qualitative data used to elaborate and explain the quantitative results (Creswell, 2005). A mixed methods research design was chosen in order to gain as much information as possible in addressing the primary and secondary research questions. This allowed for additional information to be gathered gaining a more thorough understanding of the perceptions of the audience (administrators) initially surveyed.

Sample and Selection Process

Interviews with 16 Nebraska administrators were scheduled during the spring and summer of 2012. Sixteen phone interviews were conducted with 8 superintendents and 8 elementary principals. A cluster sample of schools were selected with equal portions of rural and non-rural administrators from geographic locations throughout the state, that represented schools and districts with various student populations aligning to the subgroup of “Different student populations” in the survey. Additionally, the schools selected were based on school districts from different levels of free/reduced lunch (FRL) rates, used to represent socio-economic status of students. The three levels were based on Nebraska’s 2010-2011 FRL average (42.8%): below average (below 37%), approximate

average (37% to 46%), and above average (above 46%) (Nebraska Department of Education, 2011a) (see Table 24).

Seven of the administrators did not have a pre-k in the school district OR at the school that was district funded, other than a district special education preschool. However, two principals spoke about the preschools in their districts, but not at their buildings. One principal had a pre-k in the school, but it was operated by a community provider at very low rent from the school, and one school was implementing a district preschool this fall. Nine administrators had preschools operating in their building that were part of the district and under their leadership.

Recruitment was conducted by initial phone contact (See Appendix B). Additional phone calls and emails were used to schedule, finalize, and remind the interviewee of the time and date for the phone interview. A signed informed consent was received from each participant before conducting the phone taped interview. Confidentiality of the participant, school and school district was noted in both the consent letter and the interview protocol. The consent letter contained information on the purpose of the research and how the results of the research study would be used. A copy of the protocol was also provided to each participant at the time of the interview. Participants were asked if they were interested in a summary of the report when completed, which each participant requested.

Arranging interviews for rural elementary principals were more difficult to schedule. Many more phone calls were placed to arrange for rural elementary principal participation; possibly time is a bigger factor for them as they seem to wear many administrative “hats.”

Table 24

Interview Participants

Student Population	Superintendent				Principal				Total
	4 Rural		4 Non-rural		4 Rural		4 Non-rural		
	Below FRL	Above FRL	Below FRL	Above FRL	Below FRL	Above FRL	Below FRL	Above FRL	
a) Less than 500	1	2							3
b) Between 501-900		1	1						2
c) Between 901-3000		1	1		2	1	1	1	7
d) Above 3000				1	1		1	1	4

Interview Protocol

After the quantitative survey data were analyzed, the interview protocol questions that were originally developed were re-visited to align with the survey results. According to Creswell (2007), “The information from this analysis (database from first stage/ quantitative study) is then reviewed, and in Stage 2 decisions are made about what information is most useful for Stage 3, the collection and analysis of the second database” (qualitative study) (p. 144).

Two categories emerged in the quantitative results that encouraged a modification to the interview protocol to gain more in-depth information in these specific areas. The data from two survey categories that emerged with the highest and lowest ranked categories, as well as having the greatest differences among the school district subgroups were “Perceptions of Pre-K” and “Resources.” The interview protocol was modified to add additional probes to these questions and to gather more in-depth information. Additionally, administrators responded positively to the category of “Perceptions of Pre-K” ranking it 3.11 on a 4-point Likert scale, suggesting they viewed Pre-K as important. An additional question was added to gather information on strategies administrators are using, if any, that engage or educate stakeholders on the importance of Pre-K.

The nine questions used as the basis for the semi-structured open-ended interview protocol with additional probes were aligned with survey, are as follows:

- Question 1* Preschool programming within school/district information
- Question 2* What is your perspective on early childhood education?
Share the most significant research study on Pre-K that you believe is most relevant to your school/district?

- Question 3* What is the role of Pre-K, especially for children at-risk? Do you see it as useful to improve academic achievement/ benefit your school district, community and children?
- a. What is the role of Pre-K particularly for students with ‘at risk’ factors?
 - b. Is Pre-K discussed within your school improvement plan or school district goals?
- Question 4* What resources does your district devote to Pre-K programming, particularly preschool: Teacher qualifications and recruitment; Building resources; and financial resources.
- a. Are there any other outside factors, community factors that impact your ability or desire to deliver Pre-K programming?
- Question 5* Do resources impact current or potential Pre-K programming?
- a. Personnel; b. Physical; c. Building; d. Financial; e. Quantity of Resources.
 - b. Teacher qualifications and recruitment
 - c. Do outside factors impact your ability or desire to deliver Pre-K services, such as community, community services or agencies.
- Question 6* What is your perception of appropriate preschool curriculum?
- Question 7* What efforts are made to educate the stakeholders in your community on early childhood education?
- Question 8* According to my quantitative study, Pre-K is viewed as an important education service by Nebraska school administrators. Do you agree? If Pre-K is important and should be implemented or expanded in Nebraska schools, what efforts need to be made in order for this to occur?
- Question 9* What comments, recommendations, or final observations would you like to add that can benefit this study?

Emerging Themes

Through a process of transcribing, organizing, and analyzing the data for major topics, then coding and condensing the codes, common themes were identified (Creswell, 2007). Rather than using Atlas Ti or Maxqda software, a matrix was developed and used as a way of organizing the interview information into common themes.

The seven themes that emerged were consistent with the online survey categories:

- (a) Perspective on Pre-K; (b) Role and Value of Pre-K; (c) Research on Pre-K; (d) Curriculum in Pre-K; (e) Resources; (f) Access to Pre-K Programming; and (g) “Communicating Pre-K to Stakeholders,” as an outgrowth of survey results.

Theme Summaries

Introduction. In this section, each of the seven themes will be discussed

- (1) Perspective on Pre-K; (2) Role and Value of Pre-K; (3) Research on Pre-K; (4) Curriculum in Pre-K; (5) Resources; (6) Access to Pre-K Programming; and (7) Communicating Pre-K to Stakeholders.

Each theme will be discussed with administrator position and rural/non-rural demographic information provided for participant comments associated with each theme. Another demographic subgroup of schools, such as FRL rate, may be mentioned if it appears relevant, aligned with the survey results.

Theme 1: Perspectives on Pre-K. Perspectives on the importance of Pre-K from the interviewees were consistent, viewing it as important to critical. Several suggested it as a new key strategy to student success, as shared by a non-rural, male superintendent, “It’s one of the few really new, untapped opportunities we have as educators as it’s a ‘game changer’! A few suggested Pre-K as being more ‘urgent’ in relationship to NCLB and several shared the rise in students entering school ‘at risk’ with the urgency of Pre-K, as suggested by this rural, male superintendent:

We think it’s extremely beneficial; this is magnified by our demographic background. We have a number of children who come to our program who are not English speaking, they come from Spanish speaking families. We also have a high incidence of poverty that exceeds 50%. We feel the nutrition program in the early childhood program and the language acquisition gives the kids a head start to performing well when they continue to move into formal K-12th education.

Another rural, female superintendent explained:

We can catch things early rather than waiting for kindergarten. If we have them at three – so much easier! Certain things that they are not capable of doing and then having someone working with them puts them right on pace for kindergarten.

While another rural, male superintendent stated:

I think we are seeing more and more kids coming that are not prepared for school and yet we are asking our kids to do more and more at an earlier age; as a society, a lot of kids are not ready for that . . . preparing kids for kindergarten and beyond (is why Pre-K is important).

Several educators shared how the benefits of Pre-K are seen immediately as explained by this non-rural, female principal:

In hopes of securing a preschool at the school building, I collected data for the past several years on the students who attended preschool and those who did not. I found great gains in those that did, as I expected. The students who attended preschool outperformed those that did not attend through second grade on the DIBELS. The difference was as much as an average of knowing 7 to 10 letters and sounds more for those (children) who attended (preschool). I collected data and made charts and graphs and shared the data with the teachers so they could see the growth.

Overall, all administrators viewed Pre-K as important. Summarized by this non-rural, male superintendent “I think there is lots of information out there that suggests that if you can get to them early, teach them the skills, the better off you are and the more prepared for school they will be.”

Theme 2: Role and Value of Pre-K When administrators were asked about the role of Pre-K for students with ‘at risk’ factors, many shared that it made a difference especially for children of lower socio-economic and behavioral issues. A rural, female principal described the benefits of their preschool, “Our preschool program offers a more nurturing environment for some students. The early exposure for students with low SES

is huge! The growth and benefits of exposing those students early helps their academic performance as they enter kindergarten.” Another rural, male superintendent expanded:

I hate to say that those who speak a second language are under-advantaged but in an English speaking system, where instruction is in English, they probably are under-advantaged. They come in with challenges that exceed those from upper income. Preschool gets them on their way earlier.

A female superintendent described the need for preschool as the ‘push down’ curriculum continues to evolve:

Kindergarten is not the kindergarten of yesterday! My kindergarteners read fluently, it’s pretty intense. That is the grade now. So, if I don’t see them in preschool, then that is where you see the gap! You’ve got kids that can’t tell you that the sky is blue; nobody has been talking to them; so getting them in a program at age three that improves their vocabulary and all kinds of awareness; this may not happen (otherwise) until they are five (kindergarten age) is crucial.

All administrators shared some value of Pre-K whether their school/district had a preschool or not. One non-rural, male superintendent described the benefits:

It’s clearly beneficial to our district. We get the opportunity to start early with our kids, so for kindergartners, should I say, we have to improve their potential for literacy. Also we have (to improve) their socialization and behavioral skills, so that when they do enter school, they have a far better opportunity to improve learning through behavior and through literacy . . . opportunity to manage school but also start learning and literacy. Like most school districts, we think we bring kids in when they are ‘normal’, when they are five years old so that’ll probably makes it harder for some to measure. If they think we’ve invested big dollars in preschool and we should then have them arriving relatively ‘normal’ to kindergarten, well we have a lot more complex situation than that.

A non-rural, female principal stated how the difference of a child attending preschool is evident in her school:

I would say it’s so obvious; the first few seconds when they walk in the door for kindergarten we know if they have had any formal program/preschool. In things as simple as strategic, on how to line up or taking coat off and hanging it up or just letting mom and dad go out the door; it is so very obvious especially when you have ELL students and you (also) have kids who are five; sometimes (children) are four who have had no schooling and parents are bringing them (to

kindergarten) solely because they need a place for their kids when they go to work.

When asked if Pre-K is discussed in the school improvement planning process, the answers varied. One rural, female principal from a school with a higher FRL rate stated when asked this question, “Yes, absolutely! It’s a part of our strategic plan. The ultimate goal in our building is to have the current building that I am in serve Pre-K students. Obviously, space now is an issue, but it’s part of the plan.” Another rural, male superintendent with an above average FRL rate stated, “In regards to the school improvement plan – not that I’m aware of; I know we’ve gone through changes, but I don’t think Pre-K was mentioned.” Another rural, female principal from a higher FRL rate shared:

It is not a part of the school improvement plan, however, it is viewed, I believe, it is important. I don’t think it’s a priority, but I believe the district sees it as important. Although, when budgets get real tight, those are the things that get pushed to the back burner.

Theme 3: Research on Pre-K. In the survey, results for the category of “Research,” revealed a mean rating of 3.15 on a 4-point Likert scale, with: “1” representing “None” “and “4” representing “Mostly.” To enrich and gain more in-depth information on administrators’ perspective on Pre-K research, administrators were asked to identify the most significant early childhood education or Pre-K study and its benefits. Responses varied. A few administrators noted specific Pre-K research studies that showed children do better in school after preschool, while some noted general benefits of Pre-K, especially for ELL children. Other administrators shared experiences they have witnessed, explaining the differences in children at their school that attended Pre-K programs, and those that do not. One non-rural, male administrator referred to the “time

on task” information, “It’s real simple; the more time spent learning, the more one learns.” Two of the interviewees cited the costs benefits study in some capacity, either at this point, or as something that could be used as a selling point to stakeholders as shared by this rural, female superintendent, “It does cost more money on the other end!” One non-rural male superintendent spoke about the cost benefits research for Pre-K children, “Benefits to early childhood education, for every dollar spent on quality Pre-K, what the current research is saying; . . . people think that early childhood is daycare, it is not! It’s early childhood education.”

Several mentioned the benefits of early language exposure, while others noted learning skills in general, as explained by this rural, male superintendent, “I think preschool provides an opportunity for students working on the skills (language) and are helpful when they get to experience those skills and can move on and are not struggling or frustrated with the learning, they can learn at a comfortable pace.” On the contrary, one non-rural, male administrator stated,

The only research that I know of right now is pretty negative to preschool, coming from people who are anti-preschool and don’t want our school to dabble in preschool, they want that privatized. They think we (our preschool) was taking it away from private businesses, they were saying.

I did read some research, I don’t know the validity of the research, that once the kids are tested in second or third grade they are seeing little or no difference.

One administrator shared, “I can’t right on top of my head, but we have a lot of kids that come that haven’t gone to preschool and the difference in just understanding how school works (is apparent).”

Theme 4: Curriculum in Pre-K. Curriculum appeared to be an area that most administrators felt somewhat confident in. The most common elements of Pre-K

curriculum that was discussed included language, vocabulary, and social/emotional skills. Learning letters, writing one's name, and learning school routines and practices such as lining up were also mentioned. For the most part, the administrators aligned with best practices in curriculum for Pre-K programming. A non-rural, female principal explained, "A lot of rich language activities, a lot of reading . . . I'll go back to the vocabulary . . . the connection with vocabulary and the success with Reading."

Another rural, male superintendent explained:

Learn through play. Learn through socializing. They do lots of activities. They not only develop (knowledge about) colors and numbers and so on, but also the social skills that are necessary for the classroom, for learning to play, learning to share, appropriate behavior in the classroom; independence, some role playing, some dress-up.

The superintendent noted that this is not necessarily his own background knowledge, but one of his teachers, as he continued, "This is the testimonials by the kindergarten teachers who have identified those who have had a Pre-K experience . . . as a superintendent of the district, I have not had a lot of direct observation of that classroom." A non-rural, male superintendent stated, "Certainly, it needs to be kindergarten readiness. Academically, behaviorally, emotionally, depending upon the child – each one is at a different developmental level."

However, one rural, female administrator questioned the quantity of time allotted towards play or unstructured time in Pre-K with the understanding that it (Pre-K) is to prepare students for academics in kindergarten:

They didn't have a lot of time where they worked on learning objectives and names every day, I don't know. Not that this should be all academics, they need social and sharing because this is the new kindergarten, but working their names; I think once a week is not enough on this; they also worked on memory and they loved Music time, which should be longer because this is where they worked on rhyming, rather than running around outside without directive. Not that play is

not good - but there are students who cannot do this; they need more directive; it seemed long.

Many administrators discussed the value of Pre-K programs in relationship to behavioral and social/emotional development. They shared perceptions regarding development in these domains in Pre-K with academic gains in kindergarten. Although there were many comments on curriculum aligned to language, literacy and social development which correspond with best practices in curriculum, there were limited comments on development in each domain (social, emotional, intellectual, physical) and the understanding that play is used to develop these skills, which research shows is connected to later academic success.

Theme 5: Resources. Resources became a fiery topic for many of the interviewees. Fifteen of the 16 administrators discussed some element of resources that caused a barrier to the implementation or expansion of Pre-K or early childhood education services in their school/district. The interview protocol examined resources in three different categories: (a) human; (b) building/ space; and (c) financial.

Human resources. Human resources, specifically access to qualified early childhood education teachers were discussed first. This was not seen as a major barrier for many of the administrators. These results aligned to the survey results. Several administrators shared how pleased they were with their present Pre-K teachers, “We have a good team right now. . . . The speech pathologist comes to the classroom . . . we have a paraprofessional to support instruction” as shared by a non-rural, female principal. A non-rural female elementary principal stated, “We have staff on hand . . . it is our greatest resource.” There was also discussion regarding qualifications for the Pre-K teacher that best met the school/district’s needs. These responses varied. Some noted that special

education certification would be helpful or is recruited first, while others recruited teachers that could be moved to other grade levels if the need arises. Responses seemed to align with rural/non-rural status and to different school student populations. A non-rural, male superintendent shared, “I am also looking for someone with a special education background (for the Pre-K position) and it could take a variety of forms.” While a rural, male superintendent from a school district with less than 500 students explained, “I think the flexibility to move a teacher as needed (is important) . . . if the enrollment declines, you want to have the ability to move people to other locations (grades) rather than letting a teacher go.” However, all stated that certification in early childhood education was essential, the knowledge of child development, understanding what is age typical, knowledge of how to work with social/emotional needs of young children, with some stating the teacher’s understanding how to work with children experiencing developmental delays as shared by a non-rural, female principal:

I would look for someone who really understands development; what children should be able to show, and do and say and then know how to perform or react to this. ‘Okay, so I know this child has some of these needs so I know I should do this, these are the things I need to do to address these concerns.’

The information on human/teacher resources was one noted difference in this research study compared with the pilot study conducted two years ago. In the pilot study, administrators talked about the difficulty in recruiting quality teachers and/or qualified teachers in the area of early childhood education that met the districts’ needs. In this study, recruitment issues did not seem to be a problem.

Building/Space resources. In order to provide Pre-K programming, buildings, space, and playgrounds were all considerations that needed to be taken into account.

Building resources were discussed by interviewees as issues that impact Pre-K, sometimes mentioned in unison with financial barriers for many schools and/or districts.

The probe of “building resources” offered many, many comments, that proved to be an issue for several of the interview respondents. A rural, male superintendent shared the condition of the current building if they pursued a preschool, “the building would be a concern. We would have to do some renovations, and renovations are a concern to make room for all the requirements for Rule 11.” Another rural, female principal from a school with a higher FRL rate shared, “We rent a building that serves preschool . . . space is absolutely an issue! We also have a second floor that presents an issue for the younger kids. I already provide some education services there, so preschool would be an add-on.”

Specific building and space issues that were revealed in the interviews, comments that were not anticipated but echoed throughout several interviewees, were issues concerning playgrounds for Pre-K as explained by this rural, female principal, “The other factor that comes to mind is the outside space. As far as the guidelines for early childhood, we need to make modifications to our playground, add some fencing and perhaps some surfacing . . . things like that to accommodate Rule 11” (Rule 11 governs Pre-K programming in Nebraska Schools). This issue was shared by some as a factor that inhibits Pre-K programming at their school/district.

Financial resources. Financial concerns integrated with playground needs were seen to be a major factor that prohibited the ability to renovate buildings or playgrounds, especially in this era of tight budgets as explained by this rural, male superintendent:

I know money is tight and that Dr. Breed made the comment (at Administrator Days Conference, July 2012) somewhat to the effect, ‘we used to do more with less’; things are tightening up and we may need to do ‘less with less’; What? I don’t know if the state will be able to help us but I would love to see some type of

factor for Pre-K put into (the funding formula); I just don't know how you address the cost per student. In a smaller school, it is so much different in operating preschools rather than in Lincoln, Omaha or Grand Island, or even in smaller communities with a higher socio-economic and/or ELL population. It just seems like sometimes you get the 'fuzzy of the lollipop' when it comes to funding for Pre-K stuff, but I know the money is tight and I don't know how you fix it, especially for smaller schools.

Another rural, female superintendent explained how facilities and funding resources can be an issue in rural areas, "With funding the way it is and with rural America, and cost evaluations the way they are, they are wanting schools to be self serving. With the (state budget) formula, we are not getting any state aid; its decreasing."

One non-rural, male superintendent explained the facility issues for preschool,

You also get into facility issues. For me to say we need a four year old program, this is a whole other issue. We have our buildings full now. We are scrambling now to locate a sufficient preschool room in one of our buildings where we think we'll be located for a large portion of our program. Then you need to think about playgrounds, because there are rules for playgrounds. So saying that we need four year olds in the schools, probably means building (space issues) for every district in this state as well as playground implications.

A rural male administrator shared how their district was pro-active when they passed a school bond issue a few years back and tagged on to the budget to allow for a new preschool room when they renovated their school building. On the contrary, a non-rural, female principal stated, "Because our district recently passed a bond issue to build a middle school, I am fearful it may be years before we can get another bond passed so we can help our early childhood program grow."

A non-rural, male superintendent explained how limited community resources pose barriers in trying to expand Pre-K programs:

Key decision makers (must be involved) because if we rely on local resources, I can't see local resources existing within the financial restraints and all the things we (schools) have to deal with; to do the right thing, which I believe is *bringing all four olds into the school on a regular basis*. In the future, I just don't know

how we would financially do it. We are investing in preschool now beyond what is provided by the state.

A female superintendent expanded on this concept, “We would not be able to get the grant if there weren’t community resources available. That is a condition of the grant.” She went on to explain that in some communities, such as her rural community, some community agencies are going away.

We are not going to have Head Start in the community any more, so now where are my young mothers going to go? (referring to her full Pre-K program). If they don’t have a place (in the community) to go, they probably won’t go anywhere.

The issue of limited finances carried into the next theme, “Access to Pre-K Programming.”

Theme 6: Access to Pre-K programming. Other issues were shared that impact accessibility of preschool for children. Issues fell into two areas: “Limitations and Factors that Impact Access” and “Need to Expand Early Childhood Education Programming.” The term “early childhood education” is purposely used in “Need to Expand Early Childhood Education Programming” as some administrators perceive the need for early childhood education beyond Pre-K programs.

Limitations and factors that impact access. Administrators shared issues and frustrations about these issues impacting their parent’s ability to send children to Pre-K programs: Transportation, All day programming and Policies. Administrators explained how additional resources would be required if schools provided these services that they know are needed in order for more children to attend a Pre-K programs:

Transportation. Transportation was one issue voiced by several administrators, as explained by this non-rural, male superintendent:

Like anything else, resources are a careful consideration as we design programming; we are trying to put a program together that meets the needs of our community; district wide we are over 50% FRL; some of our neighborhoods are over 99%. If we combine that with a high Spanish (ELL) population, we have students who are traditionally underserved and not as successful. So with ECE, we are trying to provide services for parents and families who typically would not be exposing their children to a whole lot of advantages at an early age. In kindergarten, they are learning some basic skills that we would have hoped they would have already had. So in order to do that, we have (to help) families that have lots of obstacles to work with; for example, there is not an adult at home during the day with children, one or both or single household; there is no way to put the child in a half day program. Those are barriers that are understandable and hard to overcome. What do you do if you are a parent who works all day and preschool is over at 11:00? Ways to solve the problem, you have (someone) come watch your child during the day or the child's cousin or family member come in and babysit during the day because basically that is all you can do to get by. We're trying to problem solve from the stand point of families and that becomes very expensive - it requires extra resources. We are looking at providing transportation from the elementary school or bus to preschool; we've discussed providing a half day childcare . . . resources are an issue! It not only defines our program, but it also defines the needs of families – it hits on both sides of the coin - really!

All day Programming. All day programming was another issue discussed by several administrators, as explained by this non-rural, female principal, who added that neighborhood preschools were vital to the educational attainment for children, especially lower socio-economic children:

If we believe preschool is important, efforts to educate and make preschool available for all children, then I think we need to make preschool accessible to kids, so that parents can walk kids to preschool centers. I know a lot of preschool programs are half day and that is difficult for parents who work (full time) or shift work; so I think we need to make it easier for the school district to do a half day program; can we partner with someone so the parents can drop off and leave their kids for a full day rather than a half day program? I know it was difficult for me if I don't have a grandparent or neighbor, I wouldn't be able to take my kid either. So the public education system needs to think more about accessibility where they are located but also the timing of the program and how can we help parents to have their kids attend.

Policies. Another frustration voiced by many administrators impacting School's/district's ability to offer Pre-K program, expand programs, or serve more

children are policies that govern Pre-K programs in Nebraska schools, Rule 11, or limitations within Rule 11. These included requirements for playgrounds, space, paperwork, reporting requirements, as well as staffing. A rural, female superintendent explained how it impacted her school:

My goodness, the paperwork we have to do for this program to get the \$50,000, it's daunting! I can see how some districts would consider that a drawback; rather than filling out a state aide formula, the paperwork involved! Rather than the state saying, 'Hey we appreciate you serving these kiddos rather than just state aid; I think they are doing some of that now - in fact I know they are for 4 yrs olds, but not 3 yr olds.

She went on to discuss her concern for other accessibility issues,

Nebraska is SO BEHIND with regards to facilities formula; our preschoolers need 35 sq feet; so I had to put them in the largest group we had and use a divider; and then there is the criteria for only 20 kids or so and I think that should go a little bit more, such as it is for school age children when you have additional staff, then you can have more. I have one certified staff and two paraprofessionals, so I really feel I can service 22 or 24 preschoolers (not just 16) and not have to turn children away. We are full and we have to turn kiddos away. I HATE doing that. . . . I hate that because they need it; unfortunately, I'm not seeing all the kids that I need to see (in the preschool). The parents that see (preschool recruitment) in the paper, they get their kids registered; then there are the kiddos whose parents did not see it in the paper, they weren't targeted; they were not on Head Start's list. They did not see it in the paper and get here to register, they didn't get the memo; I do have kiddos that I have to turn away (that really need the program).

A non-rural male superintendent talked about the discrepancies regarding student ratios in schools vs. preschools, "I'm not arguing with the ratios, however we can mandate preschool for student to teacher ratios, however we give really unlimited flexibility to local districts on all the other grade levels!"

Several of the responses on the open/ended survey question that allowed administrators to share additional comments, addressed issues with Rule 11. Five responses were written in by administrators that addressed their concerns regarding Rule 11, as one administrator wrote:

Long before state and national agenda's recognized the importance of early intervention, our school recognized the necessity of providing these services to the children and families in our community. Now that pre-school is increasingly in the spotlight, *we are being over-run by reports and complex record keeping.* The reporting systems for the state are complex and come with very little support or training. We already provide massive amounts of reports to the state at a high cost to our districts, but out of all of those the most difficult, complex, time-consuming, staff intensive, confusing, etc, is pre-school and early childhood intervention reporting. We greatly value early childhood services and see the correlation between early intervention and success in school for children who would have been at a much greater risk without the intervention, but no one wins when there is a system over-load due to the reporting issues indicated above.

Another administrator addressed the amount of assessment requirements and reporting, which exceeded K-12 grade reporting requirements, and commented, "The amount of assessments required by the state for our preschool program *is outrageous and takes away from our ultimate goal of teaching young children.*"

Several Rule 11 policies materialize in many of the interviews. Administrators shared their frustration; they felt some of these policies prevented accessibility to Pre-K programs for children that really need it. Policies and limitations on spacing, playground, staffing, reporting, and programming requirements that included meals, outdoor and center time allotments, as well as the amount of paperwork appeared to be barriers for several schools /districts in implementing or expanding Pre-K programs.

Expansion of programming. Another element within this theme which was voiced by administrators was the need to expand Pre-K services to provide Birth – three year old services and to expand Pre-K services to all children to better meet parent and society needs.

Expand Pre-K to birth – 3 years. Several administrators stated that they wanted to serve three year olds with the same priority as four year olds. They shared a common

perception that Pre-K was important, however so were the ages of birth through age three. A female, non-rural principal stated,

Not just the Pre-K program, but the birth through three year old program in which I am very interested in. Just educating people on the research that is really there – that the first three years of a child’s development is extremely beneficial (crucial).

A rural, female superintendent stated, “if we have them at three – so much easier!” A rural, female principal stated,

I guess I just believe that the harder we work to benefit those kids from birth on, the better society will be! We’ll just get them more on an even playing field by providing them with rich activities that provide positive development opportunities.

Meet parent and society needs. A non-rural, female principal explained why Pre-K is so critical in the growing economic and changing times,

Parents are not considering they (their children) are not ready for kindergarten; they need a place for them to be; I guess our school’s philosophy is the kids don’t have to be ready for school, the school has to be ready for the kids. Therefore we do lots of things to bring these babies into a learning environment, when they don’t know any English, or are not potty trained; you’re not working on reading, writing; you are just working on independence. They (the students with preschool) are the more focused (in kindergarten).

She explained the need for all children to have access to a quality Pre-K program, to meet the academic challenges when they enter kindergarten, a view shared by several administrators.

A non-rural, male superintendent summarized the frustration the researcher sensed in many administrators’ voices when explaining the status of many families today, connecting this with the need for Pre-K programs:

If we believe that mid-central Nebraska is populated (saturated) by two parent, middle class families who do a good job of preparing kids for early literacy and for social behavioral functioning, we don’t have a clue! Demographically we are about 60% eligible for free and reduced lunch. We also know that most of our

families are working outside of the home . . . really, I can't describe families as being typical, they are all over the place.

Theme 7: Communicating Pre-K to stakeholders. Communicating the importance of Pre-K programs was an additional question added to the interview after the survey revealed a consensus that administrators thought Pre-K was important. If schools and districts want to implement or expand Pre-K programming, it may be the community that allocates the resources for this to occur, due to the tight budgets that state departments and schools are working with. Thus, stakeholders must be on board! How are, if at all, administrators communicating this message? Do they feel the need to do so? Do they have recommendations for the state, or national organizations to help advocate for Pre-K?

Most administrators confessed that educating the community, parents, board members or other teachers on the importance of Pre-K is not done on a regular basis. Many shared that most attempts to educate on the importance of Pre-K is through traditional communication modes such as monthly newsletters as shared by this non-rural, male principal with a low FRL percentage, "I don't think we've gone to any further extensions, (such as) to reach out to people who are just leaving high school." The administrator continued, "That seems to be a tough sell . . . I think one of the conversations that I have heard is the expense it takes to house someone who is incarcerated vs the expense to educate a young child . . . We are trying now to push that it is less expensive to educate right now." A rural, female principal shared, "We do not have many educational opportunities happening right now."

A rural, female principal shared how her superintendent is trying to get community support:

I know our superintendent is trying to get a community preschool center more located in our community, trying to get support from large employers of our minority, which is our majority employer right now; (support) so they understand it's important for all kids to go to preschool and that preschool supports families and does not pull kids away from their families. . . . In regards to school boards, I do believe they are knowledgeable and are interested.

A rural, male superintendent explained the need to educate stakeholders in their community:

There are 'for profit' preschools in town doing very well, however there was a large population that was missing out. There is a group of people that think we have taken away from the 'for profit' preschools; that was a huge misunderstanding. It's just taking a shot at the school . . . so we did a lot of work to educate the community on our preschool program. We started this four years ago and now, we don't do as much with this because we have not had to.

It appeared the concentrated effort to educate the community on the benefits of a school district Pre-K program was successful.

One non-rural, female principal shared a strategy they used in the past,

We did have a liaison, but because of a (lack of) funding and budget cuts, it went away. There are still things we can do with the community (that were done previously with the help of a liaison); for example, getting the special education teachers into the private centers to provide services for kids. While they (the special education early childhood education teachers) are doing that, they are developing relationships in the community; and the other thing, the professional organizations and workshops for the preschool (community teachers), early childhood people coming together, networking and sharing ideas.

Many administrators shared several strategies that they believed could be used to help educate stakeholders on the importance of Pre-K, as well as messages that they believe need to be clarified. Strategies and messages they recommended included: present at state or regional events for community / businesses in regards to the dollar benefits of early childhood education so that people just don't think it's childcare; educate on what exactly goes on in preschool and why it's important now rather than later, where if children are struggling, it's hard to go back when they are in middle school; a

concentrated TV campaign on the benefits and cost savings for tax payers; present at community organizations such as the Lions club, Rotary club, etc.

A non-rural, male superintendent stated,

But for this really to have possibilities, you are talking to state leaders, not only at the university, but more importantly, at the Department of Education, the Unicameral, and governor's position who are looking at what is happening demographically with parents and kids and how to address that.

A non-rural, male superintendent shared an innovative idea,

I might say this too; sometimes we think of leaders (key stakeholders) as political leaders but there are others that can lead, in this state particularly. I would say Buffet. I think she can make a difference because she knows what we know. She is trying and actually, I'm not so sure our leaders might listen to someone like that more than superintendents. Let's not underestimate what someone like that can do - or is already doing. She can bring and share the data from her programs (Educare).

Several administrators talked about the opportunities that are available and the benefits of educating parents about child development issues, academic issues etc. when they have their child enrolled in a preschool program, as echoed by this non-rural, male superintendent, "Preschool talk comes up all the time at different settings and locations. We have a component of parent education through the preschool program, but this is limited to those eligible." Many administrators shared how they use preschool as a tool to get parents to the school and that for some, this was maybe the best benefit of preschool as shared by a rural principal,

I would like to see a parental involvement component begin with our preschool. I think the biggest step our school should take right now is increasing our parental involvement. When parents are encouraged to be more involved they see the good things being done in the school setting and they can begin to reciprocate those in the home.

All administrators stated the importance of this, however most acknowledged that it was something that has not been given their full attention, while some recognized that

this may be the most important tool to expand Pre-K opportunities for some children. A rural, female superintendent summarized it well,

I think the state could – We ALL could do a better job, getting the word out. Working with teen moms, a teen mom is not going to have the skills of a 25 year old woman and that is where we see a lot of the issues.

Summary

The interview data seemed to reflect the survey data. Administrators all shared a belief that Pre-K is important to very important with many of them citing benefits for the child, school and community as a whole. Trying to gauge if administrators were knowledgeable about specific Pre-K research, the majority could not recite specific benefits, but general knowledge and observations that aligned to research. Curriculum responses aligned to the survey results, as most administrators were consistent and confident in their perceptions of curriculum that reflected best practices. Many of them shared that they know this from observing the preschool classroom.

Responses that seemed to garner the most reaction evolved around the themes of “Resources” and “Access to Pre-K.” This aligned to the survey results. Within the topic of accessibility and expansion of Pre-K, several responses referred to state guidelines or Rule 11, with “too many regulations” as the most common perception. This appeared to prohibit more children from being served in a Pre-K program and possibly the most needy of children. Building /space and financial resource concerns were voiced most often. The lack of these resources limited their ability to provide programming, expand on existing programming, as well as meet parents’ needs, especially in the areas of transportation and all day programming.

Chapter 6, “Discussion, Conclusion, and Recommendations” will expand on these topics, “Resources” and “Access to Pre-K Programming.” Additional comments from administrators will be shared with recommendations for eliminating some of these issues, in hopes to better bridge the gap in achievement disparities, for ‘at risk’ children.

Chapter 6

Summary of Findings, Discussion, and Recommendations

Introduction

Longitudinal study results from children who attended high-quality Pre-K programs present an influential case that similar programs can be used as a tool to close the achievement gap. Yet how much of this information is known to school administrators? Is Pre-K considered as an intervention strategy to close the achievement gap in Nebraska schools?

The purpose of this research study was to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for children at-risk. Fifty-nine percent (59%) of Nebraska public school districts participated in the study, allowing the researchers to extract some conclusions and provide some common group and subgroup analysis.

Limitations of the Study

A new subgroup emerged during the quantitative study data analysis period, "Schools with Preschools" and "Schools without Preschools." If this subgroup would have been anticipated, it would have been an additional subgroup of administrators selected for the interviews to help enrich and clarify the data within this subgroup.

Discussion and Implications of Mixed Methods Study Findings

To address the purpose of this study, six sub-questions were used to guide the research. The research questions are addressed below, grouped according to conclusions and recommendations offered. Both quantitative and qualitative results were used to address the research questions.

Research Question #1: What do elementary school principals and superintendents know about research linking children from high-quality Pre-K programs and later school achievement?

Conclusion. Responses to the category of “Research in Pre-K” found administrators rated this category 3.16 on a 4-point Likert scale with “3” as “Somewhat” and “4” as “Mostly,” the highest rating. There were no significant differences between elementary principals or superintendents in the category of “Research in Pre-K.” Interview participants were asked to share information about the most significant research study on Pre-K education they were familiar with. A few administrators were able to cite specific research, however most gave general responses signifying their perception that Pre-K education is important and how it can positively impact academic achievement, especially for at-risk children.

Discussion. For the most part, administrators were familiar and could discuss the research and the impact Pre-K can have on young children as well as on ‘at risk’ children. However their knowledge could be expanded and enriched so administrators are able to advocate for early childhood education in their community, with stakeholders, policy makers and funders. Better knowledge in the area of research can be used to advocate for, expand, and implement ECE programming in their district to help close achievement gaps.

Research Question #2: What do Nebraska public school principals and superintendents know about research-based, high-quality criteria and curriculum in early childhood education programs?

Conclusion. Responses to the category of “Curriculum in Pre-K” were rated the highest by both superintendents and elementary principals, with an overall mean rating of 3.54 on a 4-point Likert scale, with “4” as the highest rating. There were no significant differences in responses of elementary principals and superintendents in the category of “Curriculum in Pre-K.” Interview participants were asked to discuss appropriate curriculum in Pre-K with most responses aligning with kindergarten readiness skills, language development, and social/emotional development.

Discussion. It appeared most administrators were knowledgeable about key elements of early literacy development and social/emotional skills. One administrator questioned the quantity of time allotted to play, while others some spoke of holistic development in the areas of physical development, and aesthetic development, linking new brain development information with the importance of active learning. This too can be expanded and enriched so administrators of 175 Pre-K programs operating in Nebraska schools under the supervision of Nebraska school administrators have clearer knowledge of how *high-quality* curriculum factors align with positive outcomes for children. Better knowledge in the discipline of ECE curriculum can be used to guarantee quality programming in school districts. Research aligns *high-quality Pre-K programs* to positive outcomes and opportunities to close achievement gaps for at-risk children.

Research Question #4: Are there differences in administrators' perceptions about Pre-K programming, knowledge of research, understanding of curriculum and availability of resources between the subgroups of (a) elementary principals and superintendents?; (b) schools with higher percentages of lower socio-economic and children at-risk and schools with lower percentages of lower socio-economic and at-risk children?; (c) Title I vs. non-Title I schools?; (d) schools with higher and lower percentages of English Language Learners (ELL) students?; (d) rural and non-rural school districts?; and (e) school districts with different student populations?

Conclusion. There were limited differences among subgroup perceptions, except the subgroup: "Schools with Preschools" and Schools without Preschool." For the category of "Perceptions of Pre-K" two subgroups revealed a significant difference in this category: 1) in the subgroup of Rural and Non-Rural Schools, Non-Rural schools rated the category 3.24 while Rural schools rated it 3.01; and in the subgroup of "Schools with Preschools (3.25) and Schools without Preschools (2.85). It should be noted that although the category was not significantly different between ELL schools, it the difference between higher ELL schools and lower ELL percentage schools was $p=.058$. Schools with a higher ELL student population rated this category a mean score of 3.32 while schools with lower the average ELL percentage of students rated the category 3.06.

There was also a significant difference within the subgroup of Schools with different FRL rates for the category of "Curriculum in Pre-K" with Schools above the average FRL rate ranking this 3.58 while schools with below the FRL average ranked this 3.44.

Discussion. Although there were limited differences among the pre-conceived subgroups, it is important to point out that these differences were similar to the findings in research questions one and two and provided a foundation for Recommendation #1.

Recommendation #1: Require minimum training or education in the field of Pre-K for superintendents and elementary principals that allows Administrators to become more knowledgeable about Pre-K and the benefits of quality early childhood education for at-risk children. Provide future administrators the opportunity to become more knowledgeable about specific benefits of Pre-K and early childhood education that align to current research within their education administration training programs, most likely integrate it into Education Administration coursework.

In addition, specific elements of Pre-K curriculum that impact development in various domains and literacy development, to support administrators who may be responsible for the supervision of Pre-K programs in their schools, should be provided. Administrators could then gain an in-depth understanding of research in Pre-K, and how quality elements of curriculum are directly linked with positive outcomes for children, especially those at-risk, cost savings for tax payers and then be used for advocacy purposes.

Research Question #3: To what extent do Nebraska public school principals and superintendents believe financial, facility, or human resources impact Pre-K programming in Nebraska schools?

Conclusion. Resources, or the lack of resources in the form of space, building, or finances, dominated the conversations in the interviews, and was ranked the lowest category in the survey. Although the category was not rated significantly different

between the subgroups, survey questions within this category (questions 24 & 25), revealed that financial, building and space resources impacted the ability to provide or expand Pre-K programming. Survey questions 14 (d), “The school does not have the financial resources to provide Pre-K services . . .” and 14 (e), “The school district does not have the facilities or the space to provide Pre-K services” supported this. Schools with preschools rated 14 (d) 1.94, while schools without preschool programs rated the item 2.45, a significant difference of $p=003$. Schools with preschools rated 14 (e) 1.74, while schools without preschool programs rated the item 2.44, a significant difference of $p<.001$.

Participants choose to add comments about the item on both the survey open/ended question and interview open/ended question more than any other item. The Discussion section that follows is devoted to the topic of “Resources” with specific Recommendations following.

Discussion. The topic of Resources elevated perceptions and emotions by many administrators , evidenced by the comments and voices of administrators during the interviews and the responses from those who participated in the online survey. Twenty-five administrators took extra time to fill in an open ended question on the on-line survey, with some comments extending for several paragraphs. During the interview, 15 of the 16 administrators added final comments and recommendations regarding Pre-K in Nebraska, by responding to the last, open-ended question. Many of these comments and final remarks evolved around the topics of “Resources” and “Accessibility and Expansion of Pre-K.” The ‘voices’ of administrators were shared through open/ended comments, recommendations, and observations in support of additional resources for Pre-K services:

Administrator Survey Participants:

Pre-K programs should be mandatory for all publicly funded schools in Nebraska. This is the only way to ensure that they (are) developed in every school district. On the flip side the state must provide additional funds to offset the costs of these programs.

We can serve 34 students per year. We usually have more applications than slots available. In selecting our 34 candidates; Head Start gets 17 slots (income qualified) and the Schools gets 17 slots (4 year olds and IEP students are selected first). (Administrator Survey Participant)

A non-rural, male superintendent shared his perception that Pre-K is needed for all children in Nebraska,

If we are really serious about reaching all kids with more than the minimum standards, we are going to have to provide additional ‘time on task’ or time learning. So assessing and publically embarrassing public school districts will not get them (schools) as far as they want (need) to go! It seems to me that preschool programming for 4 yr olds, might be a better answer!!

A non-rural female principal shared,

I was a high school principal before coming to this position. I really didn’t have any preschool education. Watching kids learn and try to learn, (I am) trying to figure out how we can get kids to the point where they can learn when they are behind. It is very apparent to me, those who are 5 years old with no background what so ever (English speaking) it is very, *very* difficult to get them to grade level versus the kids who have had preschool, it’s not going to happen. It’s just the exposure. They need the exposure to the school to be in the same place. They can’t learn two years worth of stuff in one year and that is what we are expecting kids to do.

Administrators shared the NEED for preschool,

Would love to offer this, but can’t afford it at this time. Funding should be made available, not cut, or limited. (Administrator Survey Participant)

We have a preschool which was funded by an Early Childhood Grant and is now funded by the school district. *There is still a great need for more preschool services in our community to provide services for those who cannot pay for preschool.* We accept pay on a “As can pay” basis but most of the preschools outside of the school do not. *There is still a great need.* (Administrator Survey Participant)

I would like to see the state pick up a major portion of the funding for Pre-K programs if the accountability remains as it is a key factor to making the grade as required. (Administrator Survey Participant)

Our school has received a partial grant to offer an expanded program that will include our neediest children. The school is rural and understands how it might be difficult for parents to enroll children in a half day program if there is no child care for the balance of the day. (Administrator Survey Participant)

Collaboration with Head Start was emphasized by many. Additionally, survey item 28, “To what extent do other community resources, such as community Head Start preschool programs and existing community preschool programs, have in your school/district’s ability or choice to offer an early childhood education program?”, revealed that that community programs impact some schools/districts in delivery of Pre-K services. Schools with higher FRL rates rated this item 2.73 significantly different than schools with lower FRL; and Title I schools rated this item 2.70, significantly different than non-Title I schools.

We need to keep Head Start in the component. (Administrator Survey Participant)

A female rural superintendent continued,

We are keeping the Head Start components in the program; we are targeting the parents in the building, parent partners, parent compacts and things like that. It’s all good! . . . then there is reality. Any of those kids, the ‘juvies’ . . . *boy we have to invest more money!* They are going to be parents, we need to start getting the thoughts in their heads.

A female rural superintendent continued the emphasis for the parent element as a part of the Pre-K program,

This is a plug for more parent education and parent intervention piece; anything we can do to help them be more successful; they want to be more successful they don’t want to ‘screw’ this baby up. . . . So if there were more grants for birth through three years, if we could see them once a week; (if we can) have the parents model other parent’s behaviors, imitate!

A female, non-rural principal stated the possibility of expanding Pre-K services by collaborating with community Pre-K programs to ensure the children most at need could attend a Pre-K program,

If there was more collaborative with current preschools; if we could expand preschool, especially for the families who are not participating; it would help level the playing field for all of the children as they begin their kindergarten experience.

A male, non-rural superintendent explained:

I don't know what you are going to do with the outcomes of the study but trying to educate the general public on early childhood I believe is going to be critical. I really don't know to the extent the majority of the public truly understands what is involved in early childhood education and the benefits that could be gained. They may have a general idea, but if we can more clearly articulate the message and deliver the message that would hopefully generate more support financially, I think you would see more people carrying the ECE banner and become advocates for it and not just the schools!

A female, non-rural principal from a high FRL rate school explained:

We need community-based preschools that are accessible for children, parents, and families. We think accessibility (such as all day programming, transportation) as well as the time of the program is important; partner with community for all day services.

Recommendation #2: Expand Pre-K services. Expand Pre-K funding so all eligible children are provided services, with the same allocations that are a part of K-12th grade, such as transportation, so all children can participate. Partner with community Pre-K services, which may require training and certification for community teachers. As a part of this, look at the option of expanding Birth – 3 year old programs, targeting parent programs.

Recommendation #3: Educate communities on the benefits of Pre-K services. Educate and advocate Pre-K benefits for children, families, communities, taxpayers, and potential business and community partners so some funding costs can be shared and seen

as a “Win-Win” for all. As administrators absorb more Pre-K research in their coursework, specifically the savings to taxpayers and benefits for communities, this information can be used to educate stakeholders, and gain their support.

The final two research questions addressed other factors that influenced perceptions about Pre-K or restricted Pre-K programming:

Research Question #5. What other factors influence Nebraska public school elementary principals’ and superintendents’ perceptions about Pre-K programs?

Research Question #6. What types of Pre-K programs currently exist within Nebraska public schools or are associated with public schools in Nebraska?

Conclusion. One item that became apparent in the study was the struggle many administrators were having with Rule 11, which provides for the governance of policies and requirements for Pre-K programs in Nebraska Schools. Even though no survey items or interview questions targeted this issue, many comments were offered. Within the topic of accessibility and expansion of Pre-K, many responses were offered. These responses comprised in two areas: “Too many regulations and too few regulations”. The overall issue of too many regulations, appeared to prohibit more children from being served; it was also presented that not enough guidelines in some areas exist, which may allow for too much flexibility within the structure of Pre-K programs in Nebraska and again, may be preventing children, and possibly the most needy children, from being served by a Pre-K program.

Discussion. The policy for enrollment and recruitment varied. The *Nebraska Pre-K Grant Program* requires service priority for the most needy children, however communities are struggling with this issue as Rule 11 provides less guidance regarding

eligibility. Some offer open enrollment, most often limiting spots for the most needy children. Seventy-six administrators responded that their preschool program is open to all children. The interviews revealed that many schools recruit on a ‘first come, first serve’ basis. Additionally, there were many comments from administrators that many of the needy children are not enrolled in preschool.

Additionally, one administrator explained how the ‘middle’ seems to get left out and how schools are trying to support this in their open enrollment policy. The administrator explained Head Start recruits and requires the most needy children to be served, usually of lower socio-economic status; additionally, there is the belief that parents with financial resources can afford to pay for quality preschool services. Thus, the ‘middle’ may be the children most impacted by these factors, and thus some schools may implement their enrollment policies (open enrollment) to allow for this serving children left out by Head Start policies and yet parents don’t have the resources to pay for high-quality services. Several comments referring to this issue were shared. “Enrollment criteria are ‘loose,’ we serve any/all children. However, we are prepared to prioritize our roster for children in the year before kindergarten and children with special education needs if/when we need a waiting list.”

Our preschool is open to all students . . . however, we do give priority to children with disabilities, poverty children, low birth weight children, children of teenage mothers and non-English speaking homes. We have a sliding scale for payment for those who are required to pay based on income. About 40% of our families pay something.

Personally, I believe pre-school helps “at-risk” kids become better prepared for kinder, but I don’t know how much it has a lasting academic effect on those kids; I know it doesn’t harm them; I just think we had first grade and some parents wanted their kids to be ahead in first grade, so we invented half day kinder; then everyone had half day kinder so people said we will do all day kinder; now everyone has all day kinder so some families send their kids to half day preschool

so now everyone wants pre-school; just watch and see: if some pre-school programs start going all day so they can have an advantage, and sadly it is the *rich educationally sound homes that will do it - yes the same ones that don't need it*-the educationally disadvantaged kids are the ones that it won't benefit.

A survey superintendent shared, “State aid is insufficient for preschool services.

There are too many regulatory hurdles and not enough funding to incentivize new programs.”

Recommendation #4: Re-evaluate Rule 11: paperwork, staffing ratios, playground requirements and space. It was evident in the study, Rule 11 has an impact on accessibility of Pre-K services and expansion of Pre-K. Re-evaluate the funding formula, space, building and playground requirements, group size requirements, paperwork requirements, assessment reporting requirements, and other eligibility requirements for rural schools to equalize the playing field.

Recommendation #5: Look again at recruitment and enrollment issues.

Recommendation #6: Better uniformity within Pre-K programs in Nebraska.

There is MUCH variety in Pre-K programs in Nebraska; finding information for what exists – such as Title I schools with preschools, is difficult. Provide better guidance and regulations for uniformity within programs and communication of existing programs.

Recommendation #7: Expand Pre-K and parent education opportunities by requiring schools to work MORE CLOSELY with Head Start and other community early education and care programs to combine resources and reduce the barriers for parents while supporting their efforts. Examine specific research-based programs that have been proven to be successful, such as Head Start or Even Start parenting components, as *required partnership* or require elements of the program if the partnership is not applicable. Provide support and training for schools on collaboration

and partnerships and continue to work with organizations outside of Education to encourage these partnerships.

Future Studies

During the analysis of survey results, a new subgroup emerged with several significant differences: Schools with Preschools and Schools without Preschools. Initial survey analysis suggests that perceptions of Preschools are significantly different between these two subgroups as well as their perceptions of “Research of Pre-K.” An additional study to gain more in depth information would be beneficial; interviews with these two subgroups and possibly extended disaggregated data within each group – such as differences in schools with preschools and schools without preschools AND different percentages of students with FRL rates may enrich the data or help determine why the significant differences occur.

Additional studies that may also help to enrich the current data from this study, is to further disaggregate the data into multiple subgroups. This may include the subgroup of Rural and Non-Rural survey participants AND the subgroup of Schools with different Student Populations. It may be helpful to determine if Rural schools with smaller student populations are impacted more heavily by resources than Rural schools with larger student populations. Another combination of subgroups to study may be Non-Rural schools and the various divisions within the FRL rate schools. Are there differences in perceptions and resources for Schools with higher FRL in Non-Rural schools? Other disaggregated data combining subgroups may enrich the story of perceptions of Pre-K among Nebraska public school administrators. Duplication of this study in other states is

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

Summary

In 2000, the Pew Charitable Trusts searched for key strategies that could dramatically improve children's education success, as they were disappointed with the outcomes of education reform efforts thus far. They were encouraged to examine the data on children who had a Pre-K experience. After seeing the data and the profound impact it can have on children's school and life success, foundation members also learned that "despite decades of hard work by advocates, both foundation funding and policy makers' interest had not caught up to the research evidence on the benefits of high-quality early education" (Watson, 2010, p. 9).

After a seven year campaign by the Pew Charitable Trust to highlight the evidence of high-quality Pre-K programs and its impact on at-risk children, the Wall Street Journal wrote that the movement and expansion of Pre-K programs in schools was one of the most significant expansions in public education in 90 years since World War I (Watson, 2010, p. 9). Is it time for this movement to make a difference in Nebraska? It is evident from the results of this research study that it is time!

Research has shown that the achievement gap between lower socio-economic 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 (Boykin & Noguera, 2011).

There are 175 preschools associated with school districts in Nebraska. School administrators in 175 schools in Nebraska are now faced with the responsibility of

recognizing and providing instructional leadership for high-quality early education programs in order to produce results that positively impact children and produce the academic benefits that can narrow the achievement disparities among groups of students. Pre-K has proven to be a successful tool in bridging the achievement gap. It is vital to note that even though 175 preschools are associated with Nebraska public schools, many children in these communities are not being served and possibly – most likely some – are the most needy, at-risk children.

The results from this research conclude that Administrators in many ways understand the opportunities Pre-K has to offer. Resources are the barrier! We have an opportunity to make a difference *AND save resources, financial resources, over an extended period of time!* Specifically, results from the Abecedarian study, similar to other Pre-K studies, showed that at-risk children had significantly higher academic scores, with follow-up cognitive assessments completed at ages 12 and 15 years continuing to have higher average scores on mental tests. Preschool children scored significantly higher on tests of reading and math from the primary grades through middle adolescence. . . . At age 21, cognitive functioning, academic skills, educational attainment, employment, parenthood, and social adjustment were measured and all were positively impacted (FPG Child Development Institute, 2000). For every dollar spent on quality preschool programs for at-risk children, can save as much as \$16 over an extended period of time. As one male superintendent shared, Pre-K, “is a game changer!”

The time has come to provide the resources to support Pre-K for all children, and require new coursework for those who will administer schools of the future, as it holds

great potential to be the “game changer” for children, families and communities in

Nebraska! A rural, male superintendent summarized it best:

It comes down to money! State aid formula does not fully fund, regardless of what others may think. The state has never really funded what the formula is asking for, so even with regular education, K-12 education, the funding is short and we're trying to implement preschool programs to benefit children. We know for businesses and for society in general, this will benefit our kids. But there is not enough money being poured into education and especially preschool education.

A female, rural, superintendent stated, “We need help for the kiddos . . . we are failing the kids!”

A non-rural, male superintendent expanded on this thought:

I'm not trying to be unduly complimentary, but I believe we truly need studies like this!! Studies that can show the value, that can show our leaders, if we are really serious about competing with schools that at the eighth grade with college prep school kids in one and vocational schools in another, we have to add *time on task*. *OKAY*, where do we do that? With what is happening with parents, it may be better to add this on the front end - then to wait for remedial college classes. *Let's spend the money on a prevention rather than on intervention.*

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Appendix A

Pre-K Programs in Nebraska Schools Survey

Pre-K Programs in Nebraska Schools Survey

Dear Elementary School Principals and District Superintendents,

I am a doctoral student in the Education Administration Department at the University of Nebraska-Lincoln conducting an independent, research study. The purpose of this research study is to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at risk children. The research study will provide insight on factors that influence school administrator's decisions to provide Pre-K programs. Your participation is voluntary and confidential.

Nebraska public school administrators, specifically all elementary principals and district superintendents in the state of Nebraska are asked to complete this study. In order to provide a large enough sample size to do statistical analysis of sub-populations, this survey will be administered to all elementary schools and school districts in the state.

The information obtained from this study will be helpful in gaining information on early education programs and policies in Nebraska schools as we work together to provide the best education for students in our state. This study will give you the opportunity to voice your opinions about Pre-K, policies and or programs.

The survey will be administered on line and should take no longer than 10-12 minutes to complete. The survey will consist of seven demographic questions and thirty-nine survey questions. I understand that educators are very busy and I have made every effort to minimize the time needed to take the survey. You are free to ask any questions before agreeing to participate in or during the study. You may call the investigator (myself) at any time or email these questions. My contact information is listed on this letter. Additionally, a small select sample of elementary principals and superintendents will be asked to participate in a follow up interview based on size of schools in order that there is an equal portion of rural and non-rural administrators.

There are no known risks associated with this research. The identity of the districts and your participation in this research is completely voluntary and the information is confidential. All data generated by this study will be reported in an aggregated format that prevents identification of individuals or districts. You are free to decide not to participate in this study. You can withdraw at any time without harming your relationship with the researchers, your school district, or the University of Nebraska- Lincoln. Your decision will not result in any loss to which your district is otherwise entitled. There is no compensation associated with participation in this survey.

Again, if you have any questions or concerns about this study, please contact me (402) 641-8706 or jackie.florendo@doane.edu. Additionally, if you have any questions or concerns about being in the research, please contact the UNL Research Compliance Services office at 402-472-6965 or irb@unl.edu. Thank you in advance for your help with this research study.

Sincerely,
Jackie Florendo
Jackie Florendo; Principal Investigator

Name and Contact information of investigator:

Jackie Florendo; jflorend@unlserve.unl.edu
Office: (402) 641-8706
Advisor: Dr. Jody Isernhagen
University of Nebraska Education Administration Department UNL

By clicking here, you voluntarily agree to participate in this study.
Thank you!

Pre-K Programs in Nebraska Schools Survey

Research Purpose: The purpose of this research study is to examine Nebraska public school administrators' perceptions about Pre-K and its impact on student achievement for at risk children. The research study will provide insight on factors that influence school administrator's decisions to provide Pre-K programs.

Instructions: For questions 1-3, please provide the following demographic information by marking the appropriate box.

Administrator Data Information

1. Primary Position: Please mark the primary position you hold in your school.
 - a. Principal
 - b. Superintendent
2. Gender
 - a. Male
 - b. Female
3. Total years at present position:
 - a. 0-5 years
 - b. 6-10 years
 - c. 11-15 years
 - d. over 15 years

Instructions: For questions 4-7, please respond according to your school or district.

School Data Information

4. (a) Is your school classified as rural or non-rural?
 - a. Rural
 - b. Non-Rural

For the purpose of this survey, a school district is defined as rural if your school district is eligible for the LEA 2012 Small Rural School Achievement Program (SRSA or 2012-2013 Rural Education Achievement Program funds (REAP). (REAP defined as average daily attendance (ADA) at all of the schools served by the LEA is fewer than 500, or each county in which a school served by the LEA is located has a total population density of fewer than 10 persons per square mile; and all of the schools served by the LEA are designated with a school locale code of 7 or 8 by the National Center for Education Statistics. (U.S. Department of Education, 2012. Retrieved from: <http://www2.ed.gov/programs/reapsrsa/eligibility.html>).

- (b) What is your school DISTRICT's student population?
 - (a) Less than 500 students
 - (b) Between 501-900 students
 - (c) Between 901-3000 students
 - (d) Between 3001-9000 students
 - (e) More than 9000 students

5. Please indicate the Free/Reduced Lunch Rate at your school/district based on Nebraska's average as documented in the 2010-2011 *State of School's Report*:
 - a. Below 35%
 - b. Average 35-45%
 - c. Above 45%

6. Please indicate the ELL population at your school /district based on Nebraska's average, as documented in the 2010-2011 *State of School's Report*:
 - a. Below 7%
 - b. Average 7%
 - c. Above 7%

7. Is your school/district a Title I school?
 - a. Title I School
 - b. Non-Title I school

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

PERCEPTIONS OF PRE-K

Questions 8-14 address perceptions about Pre-K and its impact on school achievement for at risk children.

Directions: When completing the survey, please mark *the* box that most closely represents the experiences at your school. **Please respond based on a scale of 1-4, with 1= None; 2= Little; 3= Somewhat; 4= Large Amount**

Question	None	Little	Somewhat	Large Amount
8. What importance is placed on early childhood education in your school district?	1	2	3	4
9. 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
10. As more preschools are implemented in schools districts throughout Nebraska, 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
11. 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
12. Are educators with endorsements in Pre-K specifically recruited	1	2	3	4

for kindergarten through second grade openings?

13. 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

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

PERCEPTIONS OF PRE-K

Directions: When completing the survey, please mark *the* box that most closely represents the experiences at your school. **Please respond based on a scale of 1-4, with 1= None; 2= Little; 3= Somewhat; 4= Large Amount**

Question	None	Little	Somewhat	Large Amount
14. What factors influence your school or district in pursuit of funding to operate a school district preschool program at this time?				
a. The school district already provides adequate preschool programming at this time.	1	2	3	4
b. The community already provides adequate preschool programs.	1	2	3	4
c. The community has some preschool programs operating and does not want to interfere with the operation or competition of these programs.	1	2	3	4
d. The school district does not have the funding resources to provide early education services regardless of partial funding from other community or state grant funds.	1	2	3	4
e. The school district does not have the facilities or the space to provide an early education preschool program.	1	2	3	4
f. The school district does not have or cannot obtain the human resources needed for operating an early education program.	1	2	3	4

- g. The school district applied for funds through the Nebraska early childhood grant program but was NOT successful. 1 2 3 4
- h. Providing an early education preschool program is not a priority at this time for our school district. 1 2 3 4

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

EARLY CHILDHOOD EDUCATION RESEARCH

Questions 15- 18 address research in the field of early childhood education.

Directions: When completing the survey, please mark *the* box that most closely represents the experiences at your school. **Please respond based on a scale of 1-4, with 1= None; 2= Little; 3= Somewhat; 4= Large Amount**

Question	None	Little	Somewhat	Large Amount
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 its 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

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

CURRICULUM AND HIGH QUALITY CRITERIA

Questions 19-23 address Pre-K curriculum

Directions: When completing the survey, please mark *the* box that most closely represents the experiences at your school. **Please respond based on a scale of 1-4, with 1= None; 2= Little; 3= Somewhat; 4= Large Amount**

Question	None	Little	Somewhat	Large Amount
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

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

RELATIONSHIP OF RESOURCES TO PRE-K PROGRAMMING

Questions 24-28 address the relationship of resources for offering Pre-K programs in Nebraska schools.

Directions: When completing the survey, please mark *the* box that most closely represents the experiences at your school. **Please respond based on a scale of 1-4, with 1= None; 2= Little; 3= Somewhat; 4= Large Amount**

Question	None	Little	Somewhat	Large Amount
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 an 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 an 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 an Pre-K program?	1	2	3	4

Definition of Pre-K (ECE): For the purpose of this study, Pre-K will specifically refer to the preschool years, ages three through five.

STATUS OF PRE-K PROGRAMS IN NEBRASKA SCHOOLS

Questions 29-45 address the current status of early childhood programs in Nebraska schools.

Directions: When completing these questions on the survey, please mark *the* box that most closely represents the experiences at your school or district.

29. Does your School presently offer a school-affiliated preschool program, **other than** a preschool program for special education students with peer models?

- a. Yes _____ b. No _____

If you answered NO to question #29, Skip to number #46.

30. How many years has your school offered this program, counting the current school year)

- a. 3 years or less b. between 4-8 years c. more than 8 years

31. What is the total number of preschool age children served by the preschool program in your district? _____

- a. Less than 30 b. Between 30-64 c. 65 or more

32. Presuming your preschool program serves 4 year olds, do you also serve 3 year olds in your program?

- a. Yes b. No

33. Is the preschool program offered to **ALL CHILDREN** in your school district or a selected group of children based on qualifying criteria?

- a. All children b. Selected group of children based on
qualifying criteria

If you responded, "Selected group of children based on qualifying criteria" for question #33 above, please complete questions 34-42; If you responded "All Children", for question #33, skip to question #43.

For questions 34-42, please identify the population of children who are eligible to be served in the school-based, Pre-K program.

34. Children whose family income qualifies them for participation in the free or reduced lunch program.

- a. Yes b. No

35. Children who reside in a home where a language other than spoken English is used as the primary means of communication.
a. Yes b. No
36. Children who were born prematurely or at low birth weight as verified by a physician.
a. Yes b. No
37. Children whose parents are younger than eighteen or who have not completed high school.
a. Yes b. No
38. Children who have been verified with a disability.
a. Yes b. No
39. Children who qualify for or who are enrolled in the federal Head Start program.
a. Yes b. No
40. Children who qualify for or who are enrolled in another Title I program.
a. Yes b. No
41. Children qualify because of parent's paying the child's partial or full tuition to attend (parent pay program).
a. Yes b. No
42. Children attend because their name has been selected in a lottery system.
a. Yes b. No

-
-
43. If you currently operate a preschool program, how is your preschool program funded? (**Mark all that apply**)
- a. Nebraska Early Childhood Education Grant funds OR Initially funded through early education grant funds, now the program is funded as a part of the Nebraska school funding formula. (Mark YES if you district has classrooms that are or have been, funded with Nebraska Early Childhood Education Grant funds).
 - b. Head start
 - c. Even Start or adult education
 - d. Parent education
 - e. Parent pay
 - f. Special Education
 - g. Title Funds; please describe which title funds are being used specifically
 - h. Other; please describe _____
-

44. If your school funded early education program is operating in partnership with a contracted community provider such as Head Start, what services does the school district provide in the partnership to operate the partnership preschool program? (mark all that apply)
- a. Space/facility
 - b. Staff
 - c. Equipment and/or materials
 - d. Transportation
 - e. Access to school health services/information
 - f. Access to school's guidance/counseling services
 - g. Administrative support
 - h. Professional development
 - i. Other: please describe _____
-
45. If your publicly funded Pre-K is operating in partnership with a contracted community provider, approximately what percentage of the Pre-K total operating budget is supported by the school district?
- a. 0%-10%
 - b. 11%-25%
 - c. 26%-50%
 - d. 51%-75%
 - e. More than 76%
 - f. The school district does not have a preschool program.
 - g. Other; Please explain:
-
-
46. The information obtained from this study will be helpful in gaining information on Pre-Ks and policies in Nebraska schools. If there is other information about early childhood education, policies and or programs issues for Nebraska schools you believe would be helpful for this study, please provide this information in the space below:

Thank you for your time and participation in this study.

Survey Questionnaire Item Abstract Table/ Matrix

Variable: Research Questions	Question on Survey
Demographic Information (survey participants)	1-7
Purpose statement: Nebraska school administrator's perceptions about early childhood education and its impact on school achievement for at risk children.	8-13
Research question #1: Administrator's knowledge of early education research	15-18
Research question #2: Administrator's knowledge of early childhood education curriculum	19-23
Research question #3: Relationship of resources to Pre-K	24-28
Research question #4: Are there differences in administrators' perceptions about Pre-K?	1-7
Research question #5: What types of Pre-Ks currently exist in Nebraska schools?	29-45
Research question #6: What other factors influence administrator perceptions about Pre-Ks?	14 & 46

Appendix B

Telephone Script for Contacting Potential Interviewees

Telephone Script for Contacting Potential Interviewees

Name of Interview Participant: _____

Administrative Role at School District _____

School District _____

School Building (if applicable) _____

Email addresses: _____

Phone number: _____

Hello, XXXXX. I am a doctoral student in the Education Administration Department at the University of Nebraska-Lincoln conducting an independent, mixed methods research study. Just recently you were sent an on line survey to complete that will assist me in investigating what school administrators know about quality early childhood education programs and the impact of these programs on overall school achievement.

The second part of this study is to conduct interviews with an equal number of elementary principals and superintendents throughout the state. I have selected you as a possible interview participant in this research study due to your district's unique background and characteristics. This study will also give you the opportunity to voice your opinions about early childhood education, Pre-K programming in Nebraska schools, policies and or programs.

The selection of interviewees was made based on a sample size of schools in order that there is an equal portion of rural and non-rural administrators. Additionally, the schools selected are based on proportionately similar demographic information from the different levels of free/reduced lunch (FRL) rates. The research will include a short interview lasting approximately 40 minutes. The interviews are targeted for June of 2012, but I am flexible and willing to work the interview around your schedule. I would be happy to interview in person or conduct a skype or phone interview, which ever works best for your schedule.

The interview will consist of eight questions. I understand that educators are very busy and I will make every effort to accommodate your schedule and minimize the time allotted for the interview. You will be free to ask any questions before agreeing to participate in or during the study. You may call me at any time or email questions. If you agree to the study, I will be mailing a permission letter of consent for you to fill out with my contact information listed. There will be no compensation for participating in this research.

Again, the information obtained from this study will be helpful in gaining information on early education programs and policies in Nebraska schools as we work together to provide the best education for students in our state.

There are no known risks associated with this research. The identity of the districts and your participation in this research is completely voluntary and the information is confidential. All data generated by this study will be reported in an aggregated format that prevents identification

of individuals or districts. You are free to decide not to participate in this study or to withdraw your participation from the study at any time. Your decision will not result in any loss to which your district in any manner.

Again, if you agree to the study, I will be mailing a permission letter of consent for you to fill out with my contact information listed. There will be no compensation for participating in this research. You will be given a copy of this consent form to keep.

Do you have any questions or concerns about this study? Would you be willing to participate?

If so, complete information below:

Phone interview/ Personal Interview/ Skype Interview (circle as desired from administrator)

The best days in June and times of the day for the interview to take place include:

Thank you in advance for your help with this research study! The consent letter will be mailed out in the next few days. Please complete the consent letter and send back in the stamp, enclosed envelope. I look forward to visiting with you more very soon.

Jackie Florendo

Appendix C

Letter of Consent



COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

Title of Research: Nebraska Public School Administrators' Perceptions of Pre-K Education

Date
Name
District
Address
City State Zip

Dear Administrator:

Title of Research: Nebraska Public School Administrators' Perceptions of Pre-K Education
June/July, 2012

I am a doctoral student in the Education Administration Department at the University of Nebraska-Lincoln conducting an independent, research study. The title of my study is, "Nebraska Public School Administrators' Perceptions of Pre-K". This research study will investigate what school administrators know about quality early childhood education programs and the impact of these programs on overall school achievement. Furthermore, it will try to investigate what resources are available to provide these programs.

You have been selected to participate in this research study due to your district's unique background and characteristics. The audiotape interview consists of ten questions regarding Nebraska Pre-K programs and policies relevant to your school and district. I understand that educators are very busy and I will make every effort to accommodate your schedule and minimize the time allotted for the interview. The interviews are targeted for June – early fall of 2012.

There are no known risks associated with this research. The information obtained from this study will be helpful in gaining information on early education programs and policies in Nebraska schools as we work together to provide the best education for students in our state. This study will also give you the opportunity to voice your opinions about early childhood education, Pre-K programming in Nebraska schools, policies and or programs.

The identity of the districts and your participation in this research is completely voluntary and the information is confidential. All data generated by this study will be reported in an aggregated format that prevents identification of individuals or districts. There is no compensation for participating in the study, however I would be happy to provide a copy of the research results once the study is completed.

You are free to ask any questions before agreeing to participate in or during the study. You may call the investigator (myself) or secondary investigator (advisor at UNL Dr. Jody Isernhagen) at any time or email these questions to the contact information listed on this letter. If you would like to speak to someone else, please call the Research Compliance Services Office at 402-472-6926 or irb@unl.edu.

Your participation is voluntary. You are free to decide not to participate in this study or to withdraw your participation from this study at any time. Your decision will not result in any loss to your district in any manner, with the researcher or the University of Nebraska-Lincoln or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

Your signature on page two certifies that you have decided to voluntarily participate having read and understood the information presented. Please sign and return /email page 2 back to the researcher. Please keep a copy of this letter for your records.

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300



Thank you in advance for your help with this research study.

Please sign and email/ send this page back to the researcher. Email address is:
jflorend@unlserve.unl.edu

Signature of Research Participant

Date

____ I agree to be audio taped during the interview.

Contact information of Participant:

Printed Name: _____

Phone: _____

Email: _____

Address: _____

Primary Investigator

Jackie Florendo
 Doctoral Candidate
jflorend@unlserve.unl.edu
 Office and Cell: 402-641-8706
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Secondary Investigator

Jody Isernhagen, Doctorate Student Advisor
 Associate Professor of Educational Administration
 University of Nebraska Lincoln
jisernhagen3@unl.edu
 402-472-1088

The best days in June and time(s) of the day for the interview to take place include:

Appendix D

Interview Protocol

Interview Protocol

Nebraska Public School Administrator's Perceptions of Pre-K

Research Purpose: The purpose of this research study is to examine Nebraska school administrators' perceptions about Pre-K and its impact on student achievement for at risk children.

Date of Interview: _____ Time of Interview: _____
 Location of Interview: _____

Participant Profile

Participant _____
 District and School: _____
 Position: _____ Superintendent _____ Principal @ Elementary
 Years at Present Position _____ Total years in Education _____

School /District Data

Rural/ Urban School District Rural: _____ Non-Rural: _____
 School Population: _____
 Eligible for REAP funds _____
 Percentage of Students eligible for Free/Reduced Lunch Rate _____ %
 Percentage of ELL students in school/District _____ %
 Title 1 School: Yes _____ No _____
 School Identified as in Needs of Improvement: Yes _____ No _____

Introduction:

1. Thank you for taking the time to visit with me today. I am interviewing school administrators in the state of Nebraska as part of a mixed methods study to help for my dissertation study. The purpose of this research study is to examine Nebraska school administrators' perceptions about Pre-K and its impact on student achievement for at risk children.
2. I want to assure you that the information from this interview is strictly confidential. Information provided by you is reported in aggregated form only. Districts, schools and individuals are not identified.
3. It is important that everyone is a willing participant of this study. If at any time you feel uncomfortable with the interview, you are free to decide not to participate or continue. Are you willing to participate in this interview?
4. I am going to record this interview so that the interview can be transcribed (a typed copy of the interview will be made) so I have an accurate rendering of your responses.
5. If I have difficulty with the transcription, I may ask you to review the transcript as it is important that your words are accurate.
6. I am interesting in learning about the perceptions you hold regarding Pre-K and its role in a public school. Please feel free to discuss your views openly.
7. To begin, please state your name, school, district and give your permission to record this interview (Turn on tape player).

Interview Questions

1. Tell me about your school, early childhood programs, particularly pre-k in your school district and your role in Pre-K in your district.
 - a. DO you operate a pre-k program other than one for special education preschool
 - b. ___IF YES: Ages served; number served; Who is eligible to participate? How is it funded? Partnerships? What role does the school play / percentage is managed by the school?
 - c. ___IF NO: What factors influence your school/district in this decision: adequate community pre-k; competition with businesses; funding; facilities; teacher resources; other
 - d. Early education programs currently operating
 - e. Who are served by Pre-K services?
 - f. How many children does it serve?
 - g. School District Academic Achievement/ AYP Proficiency

2. What is your perspective on Pre-K? Can you describe ways in which Pre-K could be beneficial to your district, in your perspective? What is the basis for your perception?

Please explain your answer/ Give me an example.

Probes:

- ___ Academic reasons
- ___ Brain Research and its impact on young children
- ___ Research on resource savings
- ___ Resources available
- ___ Community/ Stakeholder Pressure

- b. Tell me about the most important significant research regarding Pre-K education that is relevant to school districts and education:

___ To YOUR school in particular;
 ___ is this impacted by demographics in any way? Please explain.

Is Pre-K discussed in the school improvement process? To what degree?

Is Pre-K a goal or mentioned within your school improvement plan/ District goals ?

3. What is the role of Pre-K particularly for students who enter school with potential "risk" factors such as ELL, lower socio-economic factors, etc.? Do you see it useful to improve academic achievement?

Probes:

- ___ Are Pre-K services considered in school improvement plans?
- ___ Are parent /adult education services provided?

4. What resources (human, financial, materials etc.) does your district devote to early education programming before children enter kindergarten? Probes:

- ___ Personnel working with early education services (as well Administration of programs)
- ___ Physical resources
- ___ Financial resources
- ___ Describe the quantity of resources

5.. Do resources impact current or potential Pre-K programming?

Probes:

- Personnel working with early education services/teachers (as well Administration of programs)
- Physical resources
- Building
- Financial resources
- Describe the quantity of resources

Teacher Qualifications and Recruitment:

- a. Do you find it difficult to recruit qualified early childhood education teachers?
 Other comments regarding teacher.
- b. What qualifications are important to your school district in recruitment of pre-primary and primary grade teaches, for endorsements in early childhood education?

Probes:

- Birth - age 3 endorsed
- Pre-K endorsed
- Kindergarten
- Special education endorsed Birth - age 5
- Special education endorsed Pre-grade 3 (can be the teacher on record to teach Pre-K - 3rd grade and be teacher on record for special education in these areas; would this teacher also need to be elementary education endorsed to be hired?)
- Special education endorsed Birth - age 5 (can be the teacher on record to teach, home visits etc. for Birth - 3 (Six Pence program) and Pre-K and be teacher on record for special education in these areas; would this teacher also need to be elementary education endorsed to be hired?)
- Others

- b. Are there any other outside factors that impact your ability or desire of delivery of Pre-K programming? Outside factors such as community, community agencies or services etc.

6. Can you describe the curriculum, schedule and/or other attributes that you feel would be important for a preschool in your school district?

Probes:

- | | |
|--|--|
| <input type="checkbox"/> DAP | <input type="checkbox"/> Healthy meals, snacks |
| <input type="checkbox"/> Learning Centers | <input type="checkbox"/> Social opportunities |
| <input type="checkbox"/> Reading to children | <input type="checkbox"/> Cutting, writing name |
| <input type="checkbox"/> Learning through Play | <input type="checkbox"/> Learning Alphabet |
| <input type="checkbox"/> School Readiness Skills | |
| <input type="checkbox"/> Learning to line up | <input type="checkbox"/> PARENT Element |

7. Tell me about any effort to educate the stakeholders in your community on the benefits of early education services?

Probes:

- _____ What types of information are publicized?
- _____ How often? Where does the information come from?
- _____ What types of media services are used to educate the community

8. According to my quantitative study, Pre-K is viewed as an important education service by Nebraska school administrators. Do you agree?

IF Pre-K is important and should be implemented or expanded in Nebraska schools , what efforts need to be made in order for this to occur?

Probes:

- _____ Statistics of Survey results show that most administrators believe this.
- _____ Awareness efforts of the benefits of early education
- _____ Media efforts

9. What comments, recommendations, or final observations would you like to add that can benefit this study?

Thank you!