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**Superintendents' Decision Making for Funding Full Day
Prekindergarten Programs in Schools That Serve Low-Income Families**

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by

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Dedication

To young children everywhere—born and unborn. May your best hopes be realized through early opportunities to explore all this world has to offer. Equally, may what troubles you be lessened by adults who advocate on your behalf so that you can reach your full potential.

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Superintendents' Decision Making for Funding Full Day Prekindergarten Programs in Schools That Serve Low-Income Families

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While abundant literature exists that outlines the benefits of investing in prekindergarten programs for children as well as the advantages of children attending prekindergarten, attention is needed to identify how decisions are actually made to fund full day prekindergarten programs. Most studies have focused on decision making in general and some studies have focused on the decision making process regarding implementing prekindergarten. Few studies, however, have focused on decision making for funding full day prekindergarten programs for low-income families. Additional research is needed to identify decision making factors and considerations that superintendents use to make decisions to fund full day prekindergarten programs. Therefore, this study identified characteristics superintendents use to describe their decision making processes and factors that were considered when making decisions for funding prekindergarten. Three questions guided the study: 1) How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families? 2) What factors do superintendents consider to

make full day prekindergarten funding decisions? 3) How do superintendents' decision making practices, regarding funding for full day prekindergarten reflect rational decision making?

A purposeful sampling method was used to select three superintendents for this study who had experience with decision making regarding funding for full day prekindergarten programs at the district level, had a minimum of two years in their role as superintendent, and who serve in large public school systems of at least 25,000 students. Face to face interviews, document analysis and observations were the primary data collection protocols.

Findings suggest that superintendents characterize their decision making as collaborative, data-driven, and priority based. This study also found that superintendents appear to consider accessibility to high-quality education, benefit to community and sources of funding as factors when making decisions to fund full day prekindergarten. Further, a comparative analysis of the rational decision making framework and the decision making practices of superintendents suggest that the steps of a rational decision making process are completed to some extent. This study provides insight and information for practicing superintendents who attempt to make decisions for funding full day prekindergarten. Finally, given the nature and findings of the present study, recommendations for practice and further research are offered.

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CHAPTER ONE: INTRODUCTION

Prekindergarten programs have become an important part of preparing for school, however, funding these programs has not been so simple. Early learning through prekindergarten programs was designed to enhance academic skills and behaviors of preschoolers prior to school entry and to address increasing concerns about the lack of school readiness of children living in difficult circumstances, particularly poverty (Duncan & Magnuson, 2013). A multitude of daycare and child care centers exist to care for and educate pre-school aged children. The quality of care and services that these centers provide is relative to the funding and resources available to them and, many times, it is dependent upon what the family can afford (Fox, Levitt, & Nelson, 2010). Quality early learning experiences have significant long-term benefits for a child's readiness for kindergarten and future academic achievement (Heckman & Masterov, 2007). Full day, high-quality prekindergarten programs provide a solid early learning environment and their existence can decrease the need for remediation later in school (Barnett & Carolan, 2013). *High-quality* defined in this context means that the prekindergarten program uses a curriculum that addresses state Prekindergarten Guidelines, teachers are fully certified and meet additional qualifications, and a partnership plan for families to keep them involved exists. It also means that the teachers are trained on developmentally appropriate practices for children and have a full understanding of how young children learn and acquire knowledge (Goldstein, Warde & Peluso, 2013).

When children arrive to kindergarten without a solid foundation of skills, they are likely to fall behind their classmates and, with each year, it becomes harder to catch up (Fox, Levitt, & Nelson 2010). Children who live in poverty experience a lack of skills greater than children from non-impooverished homes (Alexander, Salmon, & Alexander, 2015). The weight of poverty places a heavy burden on public schools as one of the primary institutions to help remedy the effects of poverty (Alexander, Salmon, & Alexander, 2015). Heckman & Masterov (2007) found that investing in young children from disadvantaged environments can correct harmful effects and lead to better outcomes.

The Economic Opportunity Act (EOA) of 1964 and the Elementary and Secondary Education Act (ESEA) of 1965 gave way for the creation of Head Start (Pulliam & Van Patten, 2012). As a part of the “War on Poverty”, Head Start was designed as a federal response to ensure children living in poverty would have access to early learning experiences. As a federally funded program, Head Start provides services for children and families. Programs are typically administrated through contracts with local organizations and school districts (Jenkins, 2014). Services such as health examinations, nutritious meals, and opportunities to develop social-emotional skills are provided for its participants (Jenkins, Farkas, & Duncan et. al, 2016). Federal guidelines require that the Head Start program serve children who are poor—*income below the federal poverty threshold* or nearly poor (United States Department of Health and Human Services, 2006). Head Start continues to be a comprehensive prekindergarten program for low-income families and has served over 25 million children since its inception in

1965 (National Association for the Education of Young Children, 2013). This solution has helped pave the way for many poverty-stricken children in terms of development and readiness prior to entering the school system (Hustedt & Barnett, 2011).

Making sound decisions about strengthening or expanding existing programs require an adequate understanding of past efforts (Magnuson & Shager, 2010). There are at least two other well recognized and widely cited early childhood programs from the last century that aimed to provide high-quality learning experiences for young children (Stevens & English, 2016). The **Perry Preschool Project** provided high-quality prekindergarten to three and four-year-old children identified to be at risk (Barnett, 1985). The curriculum used in this project was focused on active learning that involved decision making, problem solving, and home visits to support the families. This project was examined using a randomized controlled demonstration conducted over a span of five years from 1962-1967. The purpose of The Perry Preschool Project was to determine if prekindergarten showed major impacts on life outcomes. As a result of this study, it was found that children who participated in prekindergarten showed less need for remediation later. Test scores for participants were higher than non-participants and children who participated in this prekindergarten project were more likely to graduate from high school (Heckman & Masterov, 2007).

Another early childhood initiative was **The Abecedarian Program** which served children born between 1972-1977 whose families were low-income. Interventions were begun a few months after birth and data was collected on the participants until the age of twenty-one (Heckman & Masterov, 2007). This purpose of the project was to learn if

early intervention prior to entering school had an effect on intelligence quotient (Heckman & Masterov, 2007). The Abecedarian Program was more intense than the Perry Project in that it was a year-round, full-day intervention (Heckman & Masterov, 2007). Participants from this study received less special education services by the age of fifteen and were more likely to have better jobs later in life (Heckman & Masterov, 2007). The results from this body of research support the idea that an IQ boost can be seen when early intervention occurs during the two years prior to entering kindergarten (Heckman & Masterov, 2007).

Early funding efforts and programs for young children have had a significant, sustained impact on children born into low-income families (Stevens & English, 2016). Thus, how decisions are made regarding full day pre-kindergarten program funding, design and implementation are critical to meet the demands for high-quality prekindergarten programs.

Statement of the Problem

Although participation in a prekindergarten program during the two years prior to entering kindergarten has become more of a typical experience for American children, early learning programs vary in type and eligibility (Hustedt & Barnett, 2011). Programs can vacillate from private programs that depend solely on tuition payments from parents to programs wholly supported by federal, state or local funds (Heckman & Masterov, 2007). Previous research data tells us that nationally, 25% of four year olds (or 1 million children) were enrolled in state prekindergarten during the 2008-2009 school year and

state spending on prekindergarten initiatives was five billion dollars in 2009 (Hustedt & Barnett, 2011). State-funded prekindergarten was, therefore, the largest investment made by states and local districts (Hustedt & Barnett, 2011). Current data from an analysis of 2016-2017 state appropriations for prekindergarten show that thirty states have increased funding levels for prekindergarten programs (Garcia, Heckman & Leaf, et al., 2016). While state-funded prekindergarten initiatives may look different in implementation dependent on their location, what the programs have in common are that they are controlled and directed by state government and offer group learning experiences for children during the years prior to entering kindergarten (Hustedt & Barnett, 2011). Local decision making regarding funding full day early learning programs can be constrained by state funding policies. Funding for early childhood programs is not steady and local districts are tasked with setting early childhood education as a priority and making decisions for funding full day programs (Heckman & Masterov, 2007). Although much of the funding decision-making authority rests primarily at the state level, some decisions can be delegated to local districts (Hustedt & Barnett, 2011). Therefore, local spending decisions, when granted, represent an important aspect of financing prekindergarten programs for districts. Although the inclusion of prekindergarten programs has come to the forefront of political agendas and educational priorities in recent years (Barnett & Epstein, 2009) and researchers note the benefits of full day prekindergarten programs (Magnuson & Shager, 2010), limited research focuses on how funding decisions are made at the district level. For example, studies focused on decision making models in organizations recommend that culture should be included as an important element of the

decision making process (Oliveira, 2007), but only applied this to decision making in general, not specified to funding. An additional study examined decision making and problem solving of superintendents regarding the dilemmas they face in their role (Noppe, Yager, Webb, et al., 2013). Although the results of this study found that superintendents in urban school districts faced numerous issues with decision making, the issues that surfaced in the study were limited to the overall structure of the system and did not address issues related to funding in particular (Noppe, Yager, Webb, et al., 2013). Thus, further research may expand our understanding of superintendents' decision making regarding funding for full day prekindergarten in schools that serve low-income families.

Purpose of the Study

The purpose of this research was to examine decision making of superintendents regarding funding full day prekindergarten programs in schools that serve low-income families. In addition, factors that might influence their decision making were also a focus of this study.

Research Questions

To achieve this purpose, the following research questions were addressed:

- 1) How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families?
- 2) What factors do superintendents consider to make full day prekindergarten funding decisions?

- 3) How do superintendents' decision making practices, regarding funding for full day prekindergarten, reflect rational decision making?

Brief Overview of Methodology

The constructionist framework was the primary paradigm that fit this research purpose. Constructionism claims that meaning is constructed by human beings as they engage with the world they are interpreting (Crotty, 1998). Constructionism, therefore, highlights the way individuals interact with the world as well as how the ideas and things in the world interact to construct meaning of the world (Crotty, 1998). This way of thinking aligned with the purpose of this study in that the researcher desired to examine how superintendents' decision making processes regarding full day prekindergarten programs were prioritized in their budget and spending practices. Additionally, this study used the rational decision making framework to explore how decisions were made for funding full day prekindergarten programs for low-income students. The essence of rational decision making is using a systematic, step-by-step approach to arrive at a decision (Kowalski, 2013). The rational model is organized around a process that includes identifying the problem, generating alternatives, examining options and finally implementing a solution (Kowalski, 2013).

A qualitative research method was applied with a multiple case study approach. Participants were selected using purposeful sampling to recruit superintendents who had a minimum of two years in their role and who served in a large public school system. Selected participants also needed to have experience with decision making regarding

funding for prekindergarten programs at the district level. Data was collected through the use of a semi-structured interview protocol that included interviewing and observing participants. Responses from the interviews were transcribed and notes from observations were reviewed. Both the transcribed interview scripts and observation notes were coded using open, axial and selective methods to determine themes.

Definitions of Terms

The following definitions of terms apply to this study:

Prekindergarten, also referred to as preschool and early childhood, is a classroom based educational experience for children at or below the age of four (Barnett, 2010).

High-Quality is the term that refers to specific components that prekindergarten programs must have in order to be considered effective. The components include curriculum, teacher qualifications, and family outreach (Collier, 2016). Each is measured by its inclusiveness in the prekindergarten program.

Full Day is the term used to describe at least a seven-hour day of school including intermissions and recesses (Texas Education Agency, 2018).

Funding is the amount of financial resources that are received in order to provide prekindergarten services and programs. Funding usually comes from the state as part of the Foundation School Program (FSP), grants, community funding, and tuition (Hustedt & Barnett, 2011).

Readiness is the term that refers to the physical, cognitive, social/ emotional skills, knowledge, and attitudes necessary to achieve success in school and in later learning (The National Association for the Education of Young Children, 2009).

Superintendent is the term that refers to the high level administrator in a public school in charge of a school district and management of the organization.

Decision Making is the term used to describe the process and logic through which individuals arrive at a decision.

Rational Decision Making is the term used to describe using a systematic process to arrive to a solution.

Characteristic is the term to describe a distinguishing trait, quality or property.

Factor is the term used to describe something that actively contributes to the production of a result.

Collaborative means that something is produced or conducted by two or more parties working together.

Delimitations

This study only focused on three superintendents in a central south state regarding their decision making for funding full day early childhood programs. The decision making of all other superintendents as well as other stakeholders in other districts were not taken into account. The intent was to understand their considerations for funding full day prekindergarten programs and not to evaluate their decision making.

Limitations

Qualitative researchers intend to gain insight and a deeper understanding to illustrate a phenomenon and rely on small samples of participants (Hays & Singh, 2012). This study only included three superintendents in specific school districts in a southern central state. Therefore, generalization of the findings was limited.

Assumptions

For the purpose of this study certain assumptions were made. It was assumed that the districts had high-quality early childhood programs. It was also assumed that the three superintendents were the primary actors in decision making regarding funding for full day prekindergarten programs. Finally, was assumed that superintendents would be willing to be interviewed by the researcher as well as honest and accurate in their responses.

Significance of the Study

In this study, an attempt was made to examine the decision making of superintendents regarding how they make decisions for funding early learning programs that are geared toward kindergarten readiness of low-income students. As such, exploration of this topic may add to the body of research regarding decision making for funding full day prekindergarten programs. The results of this study might have potential to inform future superintendents on how to make decisions regarding funding efforts for full day prekindergarten initiatives and programs as well as the factors that influence their funding decision making.

Summary

This first chapter provided an introduction to understanding the need for full day prekindergarten programs and the importance of decision making regarding prekindergarten program funding for early learning. This chapter also included a statement of the problem, purpose of the study, research questions, a brief overview of the methodology, definitions of terms, delimitations, limitations, assumptions and significance of the study. In chapter two, a summary of relevant literature will be reviewed that outlines historical perspectives of early learning, the importance of prekindergarten, risk factors of poverty for low-income families, types of prekindergarten funding models, the influence of policy in funding, superintendent decision making for funding full day prekindergarten, decision making framework and implications for further research.

CHAPTER TWO: LITERATURE REVIEW

The emphasis of this research study was to examine the decision making of superintendents regarding how they make funding decisions for full day prekindergarten programs for children of low-income families. This chapter provides a review of literature that frames key considerations of early learning that superintendents need to understand and consider when making decisions regarding funding to support prekindergarten programs. A historical overview of the establishment of prekindergarten programs, an examination of the importance of prekindergarten, an examination of low-income families' need for prekindergarten, a review of prekindergarten funding models, superintendent decision making for funding full day prekindergarten and the role of policy in funding are included. The rational decision making model is described as the framework that guided the second level of analysis of data.

Historical Development of Prekindergarten Programs

Prekindergarten first emerged during the late 1800's as a way to meet the needs of families, particularly mothers who needed to join the workforce (Cross, 2008). With men away at war and mothers now employed, the need for childcare became critical. As a result, the United States Office of Defense Health and Welfare Services established childcare programs that created daycare centers (Marks, 1943). Funding for these centers was provided through the Lanham Act, a piece of legislation that served to fund infrastructure projects after the war (Marks, 1943). The language of the bill, however, was reinterpreted so that funding childcare centers could be funneled through it, supplying teachers and other workers the resources to keep daycare centers open (Marks,

1943). Once the war ended, many people felt that these child care centers should remain open and that they were more than an emergency wartime measure (Marks, 1943). As this daycare concept evolved, the development of preschools began (Cross, 2008). Unlike daycare centers, these preschools began to introduce academic skills to children, but were expensive to maintain in part from many of the federal grants established to fund these centers during the war (Cross, 2008). In 1960, 10 percent of the nation's three and four year olds were enrolled in some form of classroom learning, and by 1970, this percentage doubled with the majority of children being cared for in private programs funded by parents (Barnett, 2010).

The Importance of Prekindergarten

Children enter school with varying levels of preparation for learning (Magnuson & Shager, 2010). Researchers consider both pre-academic skills such as number and letter recognition, as well as behavior skills such as sitting still and following directions to determine readiness for kindergarten (Keys, Farkas, & Burchinal et.al., 2013). Children from low-income families, on average, have lower levels of readiness (Ma, Nelson, Shen, et. al., 2015). As such, disadvantaged children may benefit the most from participating in early childhood programs because of being less likely to have exposure to things at home such as literacy and stimulating verbal interactions with others (Magnuson, Ruhm, & Waldfogel, 2004). Prekindergarten is important for children in the early years because such early interventions can potentially prevent gaps from developing or at least lessen their severity (Bassok & Latham, 2017).

Kindergarten Readiness

Research from the Early Childhood Longitudinal Study where a group of children who entered kindergarten in 1998 were tracked and found that, on average, when compared with non-poor children, the poor children scored .65 of a standard deviation lower on an early reading test and .72 of a standard deviation lower on an early math test (Magnuson & Shager, 2010). Given that children learn about a standard deviation worth of skills in their first year of school, this tells us that children living in poverty begin school six months behind their more advantaged peers (Magnuson & Shager, 2010). If children were able to make up this ground quickly, beginning behind would not be an issue. An understanding that early differences in pre-academic skills and behavior foreshadow later academic and behavioral disparities is important (Jenkins, 2014).

School readiness refers to the state of a child's competencies at the time of school entry (kindergarten) that are important for later success (Goldstein, Warde & Peluso, 2013). The significant components that define readiness cause discussion, however. Early views of readiness saw it to be more of a developmental stage that was biologically determined rather than a result of environmental influence (Ma, Nelson, & Shen, 2015). Children were screened to determine if they were ready for school and those who were labeled "not ready" were kept out of school until they were developmentally equipped (Rodriguez & Tamis-LeMonda, 2011). Current views of readiness are based on brain research that show how a child's brain development is influenced by their learning experiences (Ma, Nelson, & Shen, 2015). Children who are not able to develop knowledge naturally through their interactions require explicit intervention and exposure

to developmentally appropriate practice (Rodriguez & Tamis-LeMonda, 2011). A goal of No Child Left Behind legislation that was to be achieved by the year 2000 was for all students in the United States to start school ready to learn (Meisels, 2007). The term readiness, therefore, has to be clear to policy makers and district leaders. One of the most well-known associations for early learning advocacy is the National Association for the Education of Young Children (NAEYC). Ensuring that children are ready for school is one of the organization’s big issues in policy and practice (NAEYC, 2009). Its position on readiness can be seen in Table 1 below.

Table 1: NAEYC Position on Readiness
<ul style="list-style-type: none"> • School readiness requires access to opportunities
<ul style="list-style-type: none"> • School readiness must be flexibly and broadly defined
<ul style="list-style-type: none"> • Kindergarten entry should be based on age, not on mastery of skills
<ul style="list-style-type: none"> • Schools must be ready to help children learn

Table 1 Source: NAEYC, 2009

Student Outcomes

A study conducted by Magnuson, Ruhm and Waldfogel (2004) examined the effects of prekindergarten on school readiness. This quantitative research model was used to look at the year of life prior to entering kindergarten. Data from the Early Childhood Longitudinal Study (ECLS) was used and evidence was found that attending prekindergarten resulted in greater academic benefits, especially for disadvantaged children (Magnuson, Ruhm & Waldfogel, 2004). Specifically, prekindergarten was

associated with higher reading and math readiness skills at the time of kindergarten entry (Magnuson, Ruhm & Waldfogel, 2004).

Plevyak and Morris (2002) conducted an investigation that studied children who attended quality prekindergarten programs and their readiness score on kindergarten screening tests. In this study, it was learned that because children had the opportunity to engage in varied activities and be immersed in literacy and math activities that they scored higher on kindergarten readiness tests than children who did not attend prekindergarten and have these same experiences (Plevyak & Morris, 2002).

A recent report from Duke University indicated that the effects of attending prekindergarten can be seen through the fifth grade (Dodge, Bai, Ladd, et al., 2017). During this particular study, students who attended state-funded early childhood programs between 1995-2010 were tracked and it was shown that these students scored higher on math and literacy tests during third through fifth grade than their peers who did not attend a high-quality prekindergarten program (Dodge, Bai, Ladd, et al., 2017). An additional study followed two generations of families who participated in high-quality prekindergarten programs for low-income families. The results from this study showed that students who attended prekindergarten were more likely to graduate from high school, had higher IQs, experienced better overall health, and were less likely to be incarcerated than their peers who did not attend prekindergarten (Garica, Heckman, Leaf, et al., 2016).

Early Learning and Brain Development

The development that occurs from birth to adulthood has largely been ignored throughout human history as children were often thought of as small adults (Shute & Slee, 2015). As a consequence, little attention was paid to the progression of cognitive abilities, language usage, and physical growth that occurs during childhood and adolescence (Shute & Slee, 2015). Theories of early learning such as Piaget's Cognitive Development Theory and Vygotsky's Sociocultural Theory of Development, however, support the idea that some form of development occurs between birth and the age of entering school (Shute & Slee, 2015). In fact, theories of early learning are based upon tenants of child development and seek to explain how children change and grow during childhood (Shute & Slee, 2015). Overall, the degree to which children are able to grow and develop can be impacted by the stress of poverty (Luby, Belden, Botteron, et.al, 2013). A review of brain development is needed as children from low-income families are prime candidates of benefiting from prekindergarten, yet may not fully realize the gains it offers as a result of poverty (Magnuson & Shager, 2010).

It is widely accepted that children begin learning long before they enter any type of formal schooling and that their development grows at a rapid rate during the first few years of life (Yoshikawa, 2012). Brain research shows how important strong foundational skills are for the development of more complex capabilities (Yoshikawa, 2012). Psychologists refer to the early years as a "sensitive" period for cognitive and socioemotional development, in recognition of the fact that certain skills are most easily acquired during this time (Magnuson & Shager, 2010). Researcher Twardosz (2012)

conducted a study that measured the effects of experience on the brain. In her research, she examined the role experience plays while the brain is still developing—like that of a preschool aged child. Her research uncovered the term “experience-expectant plasticity” which means that the synapses in specific areas of the brain are overproductive and then “pruned” by experiences (Twardosz, 2012). This illustrates the conditions in which many low-income students live, emphasizing the need to provide them with enriched school settings while their brains are developing, particularly children from low-income families.

Low-Income Families’ Need for Prekindergarten

Poverty is linked with risk factors that have a negative impact on outcomes for children (Luby, Belden, Botteron, et. al, 2013). The effects of poverty on brain development have been studied and results showed that things such as poor nutrition, high levels of stress, and unsupportive parenting play a role in later development (Luby, Belden, Botteron, et. al, 2013).

According to a 2016 U.S. Census Bureau report on poverty, 12.7% of the United States population lived in poverty which was equivalent to 40.6 million people (Semega, Fontenot & Kollar, 2017). The poverty rate for *families* in 2016 was 9.8%, representing 8.1 million family units. Of this number, six million were children under the age of 18, 10.9 million were aged 18-64 and 1.6 million were aged 65 years and older (Semega, Fontenot & Kollar, 2017). Overall, children represented 23% of the population. Currently, one out of five children live in poverty, 1.6 million children experience

homelessness and twenty-five percent of children are born into single parent homes (Semega, Fontenot & Kollar, 2017). Compared with other developed countries, poverty rates of the United States are particularly high, as is the likelihood of remaining in poverty over several generations (Alexander, Salmon, & Alexander, 2015). Increasing accessibility to prekindergarten programs can allow families more opportunity for participation and how resources are planned for and utilized can assist with equity issues that plague low income families (Fowler, 2009).

Risk Factors of Poverty

Research conducted by scientists has demonstrated the negative impact poverty has on brain development of young children and has noted that adverse environments place children at risk for social and economic failure (Heckman & Masterov, 2007). As an example, one possible reason for disparity between more and less advantaged children is the quality of the family environment young children experience during the critical timeframe for brain development (Magnuson & Shager, 2010). Further, parents with higher levels of education and financial resources are better able to provide the type of environment needed for the development of academic skills and may be more responsive to their child's social and emotional needs (Magnuson & Shager, 2010). The inability to provide financially for children may result in parents feeling frustrated, helpless and depressed (Manguson & Shager, 2010). These combined factors highlight the disadvantages that poorer children face. Accordingly, there is promise with

providing children living in poverty with enriching social and academic environments that may help to mediate the effects of poverty (Jenkins, 2014).

Lasting Effects of Poverty

Children exposed to poverty have poorer cognitive outcomes and are at higher risk for anti-social behavior and mental disorders (Yoshikawa, 2012). Findings from a study conducted to determine neuro-biological environmental exposures on brain development resulted in understanding that the two brain regions responsible for stress regulation and emotion processing are sensitive to environmental stimuli (Luby, Belden, Botteron, et. al, 2013). For this reason, children who experience unsupportive parenting, poor nutrition, inadequate education, and high levels of traumatic life events have a stronger likelihood to have poorer outcomes (Luby, Belden, Botteron, et. al, 2013). The importance of early learning experiences for children where they can receive nurturing, such as a high-quality prekindergarten program, may help protect them from stressful life events and therefore improve brain development (Luby, Belden, Botteron, et. al, 2013). Although these opportunities for children to attend prekindergarten programs are beneficial, the mere existence of such programs does not guarantee that students actually enroll and attend (Community Organizing and Family Issues, 2009). Possible barriers to attending prekindergarten include lack of transportation, conflicting work schedules, lack of information about prekindergarten options, and a scarcity of prekindergarten slots (Community Organizing and Family Issues, 2009).

Prekindergarten Funding Models

The last decade of prekindergarten funding and policy in the United States has been characterized by both change and stability. Enrollment in prekindergarten has increased, yet vast inequalities across the states have been seen (Barnett & Carolan, 2013). An examination of state prekindergarten programs in 2006-2007 by the National Institute for Early Education Research (NIEER) reports sizable variations in funding across states (Barnett & Carolan, 2013). As a result, some states have progressed significantly in their prekindergarten program offerings while other states continue to not offer any programs for prekindergarten at all.

Prekindergarten programs are designed to give children quality learning experiences and to prepare them to enter kindergarten (Barnett, Carolan, Squires, & Clark Brown, 2013). Prekindergarten programs serve children ages three to four and focus on readiness for kindergarten (Keys, Farkas, Burchinal, et.al, 2013). Nationally, 28% of all 4-year olds were enrolled in prekindergarten across 40 states in 2010 compared to 11% of 4-year olds enrolled in Head Start (Barnett, Carolan, & Fitzgerald et.al., 2011). Today, 60% of preschool aged children participate in either prekindergarten or Head Start (Jenkins, Farkas, & Duncan et. al, 2016).

Within the past decade, states have seen a decline in state expenditure per child, especially in 2011-2012 after federal stimulus funds were depleted (Barnett & Carolan, 2013). Although funding weakened during the Great Recession, states overall have increased their investments in prekindergarten programs during the last 20 years (Barnett & Carolan, 2013). Currently, nine states plus D.C, include prekindergarten in their state

education funding formulas (Barnett & Kasmin, 2016). These states include Colorado, D.C., Iowa, Kentucky, Maine, Oklahoma, Texas, Vermont, West Virginia and Wisconsin. (Barnett & Kasmin, 2016). Other states include their voluntary prekindergarten programs within their state constitution resulting in equity and access be upheld over time as a priority as opposed to becoming an annual discretionary decision (Barnett & Kasmin, 2016). In 2016-2017, six states did not provide state funding for prekindergarten programs. These states were Idaho, Montana, New Hampshire, South Dakota, North Dakota and Wyoming (Barnett & Kasmin, 2016).

Funding options for prekindergarten programs in the United States include state funded programs with either a targeted or universal eligibility, programs that employ private and public partnerships, and programs funded with special earmarked revenue. Federal aid in the form of grants can also be used to fund prekindergarten programs for young children.

State Funded Model—Targeted and Universal Eligibly

Each year, state legislatures appropriate specific amounts from their budgets to fund their states' prekindergarten program (Stone, 2008). This type of funding requires legislative approval as is susceptible to budget cuts because of legislators dealing with competing priorities (Stone, 2008). State funded prekindergarten programs are typically half or whole day programs for children three and four years old geared toward participation during one or two years prior to entering kindergarten (Jenkins, 2014). Currently, forty states offer prekindergarten programs although they differ in service,

access and eligibility. While all prekindergarten programs aim to provide solid early learning experiences, they differ in their goals, governance, funding, structure and standards (Barnett & Carolan, 2013). An example of this is that some state prekindergarten programs offer services such as transportation and health screenings—benefits usually reserved for students when they enter kindergarten (Barnett & Carolan, 2013). Most prekindergarten programs target low-income children with a growing number considering a universal approach.

Targeted Eligibility

The more widely known models of prekindergarten programs are those with targeted eligibility (Hustedt & Barnett, 2011). A targeted program means that the program is available to a subset of children such as those with a disability, who are at-risk or who come from a low-income family (Hustedt & Barnett, 2011). As such, targeted prekindergarten programs are based on eligibility criteria, usually child or family characteristics such as income and language proficiency (Barnett et. al., 2013). The rationale behind offering prekindergarten targeted towards at-risk children is that these are the children who stand to benefit the most from a prekindergarten program (Hustedt & Barnett, 2011). An argument also exists that public funds are better spent on families who cannot afford to pay prekindergarten tuition on their own because of it being easier to garner public support for families in need. (Hustedt & Barnett, 2011).

Universal Eligibility

Although the United States has promoted prekindergarten programs that target families of low-income for the last 50 years, some argue that it is time to move toward a different approach to which all families have access to prekindergarten independent of other risk factors (Barnett, 2010). The term “Universal Pre-K” means that the program is open to any pre-school aged student. Currently, only three states offer fully Universal Pre-K programs for students: Florida, Georgia and Oklahoma. Other states may be partially universal meaning that they only have an age requirement, but lack the space and resources to accommodate all preschool aged students (Barnett et al., 2013). The most successful state for the Universal Pre-K program is Oklahoma which has been in place since 1998. In Oklahoma, 75% of the state’s four year olds are in a prekindergarten classroom (Barnett et al., 2013).

Private and Private/Public Partnerships

Privately funded care is the option most commonly used for children who do not attend a state targeted model prekindergarten or Head Start program and who do not receive child care subsidies (Keys, Farkas, Burchinal, et.al., 2013). Privately funded means that the parents and families pay for the care directly without any assistance from the state or federal government. Examples of privately funded care are preschools, nursery schools, day care centers and non-parental care provided by family, friends, and neighbors (Keys, Farkas, Burchinal, et.al., 2013). Typically, families who choose this route for prekindergarten do not qualify for targeted programs because of income ineligibility (Keys, Farkas, Burchinal, et.al., 2013). As research on the economic benefits

of prekindergarten becomes better understood, business leaders and philanthropists have stepped forward to form partnerships designed to jumpstart state investments in prekindergarten (Stone, 2008). These public-private partnerships can also fund an early childhood endowment, support a model early care and education program or help states design a quality improvement system for prekindergarten programs (Stone, 2008).

Funding Earmarked for Early Learning

As state funded prekindergarten programs grow, policymakers must come to understand the pressing need for more substantial and sustainable funding that has to possibility to increase over time (Stone, 2008). Some states have turned to alternative sources such as lottery money, gaming revenues and dedicated taxes to fund prekindergarten programs (Stone, 2008). Lotteries provide significant funds that when used for education, can boost investment in prekindergarten programs (Stone, 2008). Funding secured through lotteries is generally accepted by the public because it does not require legislative approval (Stone, 2008). “Sin” taxes can also serve as a source of revenue for prekindergarten programs (Stone, 2008). These type of taxes include revenue generated by tobacco, beer and special sales taxes. A drawback to these alternate funding sources for prekindergarten are that they consume a greater share of the resources of low-income citizens, putting a disproportionate burden on them (Stone, 2008).

Federal Aid and Grant Opportunities

Although the major portion of prekindergarten funding comes from state and local governments, federal aid is available and can be used to enhance and expand

prekindergarten (Stone, 2008). Federal efforts such as Temporary Assistance to Needy Families (TANF), The Child Care and Development Block Grant (CCDBG) and The McKinney-Vento Homeless Assistance Act serve to support low-income families, subsidize the cost of living and assist with childcare costs (Stone, 2008).

President Obama's *Race to the Top: Early Learning Challenge* was announced as a part of the American Recovery and Reinvestment Act of 2009 (AARA). This law set out for states to compete for grant funds to support early learning programs (U.S. Department of Education, 2009). The grant provided 500 million dollars to winning states whose policy makers showed innovation and improvement to early learning programs as a way to close the achievement gap between low-income children and their peers (U.S. Department of Education, 2009). To date, 18 states plus D.C. have been awarded funds to assist with their efforts in implementing comprehensive education reform (U.S. Department of Education, 2018).

The Influence of Policy in Funding

Prekindergarten programs have been built with support from across the political spectrum (Karch, 2013). Prekindergarten has often been publicized as a policy issue that is bigger than the “red state-blue-state” divide because the politics surrounding prekindergarten differ between the national and state levels (Karch, 2013). The potential of prekindergarten to reduce poverty and address inequality attracts the “left wing” democrats while the opportunity for return on investment and benefit-to-cost ratios

appeals to the “right wing” republicans (Karch 2013). Where district leaders are on the political spectrum could influence their decisions for funding prekindergarten.

Every Student Succeeds Act

The Every Student Succeeds Act (ESSA) of 2015 was signed by President Obama on December 10, 2015 and set to reauthorize the Elementary and Secondary Education Act (ESEA) that has been in place for the past fifty years (USDE, 2018). ESSA provides provisions for equal opportunity for all students relative to preparing them for college and careers (USDE, 2018). A highlight under ESSA is that it expands the federal government’s commitment to investing in and increasing access to prekindergarten (USDE, 2018). One goal under ESSA is that it requires states to measure school performance using a minimum of five ways: Academic achievement, academic progress, English language proficiency, high school graduation rates, and school quality. *Kindergarten readiness* falls under school quality and is an effective measure that states can use to achieve the goals under ESSA (USDE, 2018).

This federal law unfolds on state policy in that it decreases the amount of federal mandates and gives states more flexibility and authority than in the past (Brown & Sumsion, 2016). With each state operating under its own constitution, legislation and regulations, how each state distributes its authority will vary from one state to the next (Brown & Sumsion, 2016). Educational leaders gathered at an institute in 2015 to discuss the state’s role in implementing ESSA (Brown & Sumsion, 2016). A product of this meeting was a guide for states to use when determining its roles that are essential for

states to lead as well as roles that are “unsuitable” (Brown & Sumsion, 2016). One essential role that was identified specified for states to sense make was to enforce statutes and policies through regulation, compliance monitoring and technical assistance (Brown & Sumsion, 2016). This panel of educators also noted, however, that states should not dictate how districts spend their money nor should they drive resources toward ineffective programs (Brown & Sumsion, 2016).

Partisan Politics

Partisan politics is the idea that differing values drive political choices at the state level (Glitterman, 2010). Traditionally, early childhood development funding policies have conflicted with conservative values of public involvement in family life meaning that education itself is seen as a public responsibility, yet the care of children as a private one (Rose, 2010). As an example, conservative states are often less likely to have preschool programs and have weaker child care regulations (Karch, 2010). Democratic states are usually more motivated about publically funded prekindergarten programs than Republican states and, as a result, Democratic states may have an increase in the possibility of state funds being allocated to prekindergarten education (Karch, 2010). As research builds in favor of positive outcomes as a result of attending a high-quality, full day prekindergarten program, policymakers will have to rethink how early childhood education can be included into their state funding plans (Stone, 2008). With the enactment of the Every Student Succeeds Act in 2015, states have the opportunity to

reevaluate decisions regarding prekindergarten funding, hopefully resulting in the most at-risk students being given priority from an early age (Karch 2010).

Superintendent Decision Making

Superintendents in educational settings are often judged based on how quickly they are able to move the academic needle in producing positive student achievement results (Noppe, Yager, Webb, et al., 2013, p. 105). The goal of decreasing the achievement gap that surfaces by third grade is of significance as it relates to the importance of early childhood education and the amount of funding that is allocated to supporting quality educational experiences through prekindergarten programs (Noppe, Yager, Webb, et al., 2013, p. 105). Funding for full day prekindergarten depends on decisions not only made at the federal and state level, but at the local level with the superintendent (Hustedt & Barnett, 2011, p. 176). Curtis & City (2009) assert that making decisions involves developing strategic initiatives that “help the organization identify small amounts of high-leverage strategies for improvement”. Further, they assert that “effective superintendents articulate his or her theory of action and put that theory into use by way of strategy that helps guide decisions” (Curtis & City, 2009). Strategies are comprised of strategic objectives or goals that frame the areas that the organization will focus (Levin & Fullan, 2008). These areas of focus can also be referred to as priorities, initiatives, or goals.

Decision Making Models

Attention to decision making has progressed over time and has been the focus of research in various disciplines and contexts (Oliveira, 2007). Organizations such as American Association of School Administrators (AASA) have found that superintendents face issues on a regular basis (2005). The superintendent is similar to a CEO in other major organizations in that he is no longer limited to oversight and direction (Noppe, Yager, Webb, et al., 2013, p. 104), but has to engage in decision making regarding programs and funding sources. An analysis of six decision making models was conducted to determine which model was most effective (Noppe, Yager, Webb, et al., 2013). Table 2 below shows the types of decision making models that were analyzed along with a brief description.

Decision Making Model	Description
Classical	Straightforward; there is one best solution
Administrative	Decisions satisfy the situation, but not ideal
Incremental	Muddle through decision; baby steps
Mixed Scanning	Mix of shallow and deep examination of data
Garbage-Can	Irrational decision making
Political	Functions to satisfy an individual's goals

Table 2 Source: Noppe, Yager, Webb, et al., 2013

Analysis of the six models suggested that there was not one best way to make a decision, but that it was the situation that determined which strategy was most likely to

yield an acceptable result (Noppe, Yager, Webb, et al., 2013). The decision making models that were used the most by superintendents in the study were incremental, classical and mixed-scanning (Noppe, Yager, Webb, et al., 2013). The model that was used the least was the garbage can approach using irrational decision making (Noppe, Yager, Webb, et al., 2013). Selection of decision making models may also depend on the goal at hand including programs or initiatives.

Collaborative Decision Making

Research on collaborative decision making was conducted to determine how superintendents in the United States work with stakeholders in the decision making process (Brazer, Rich & Ross, 2010, p. 196). Specifically, an examination of how three superintendents involved a variety of stakeholders in creating strategic decisions to implement the direction set for each school district in the study was conducted. Superintendents were found to deliberately construct “stakeholder webs” where they invited participants to serve on committees to address a specific instructional challenge (Brazer, Rich & Ross, 2010, p. 199). These “webs” allowed superintendents to account for the interchange among participants as they endeavored to influence the ultimate decision (Brazer, Rich & Ross, 2010, p. 199).

A tactic cited by this research that superintendents used when engaging in collaborative decision making was to interact with people from multiple constituencies. This allowed the participants to believe that they were part of a meaningful process. It is important to note that even with the use of this tactic, the outcomes of the committees were inadvertently aligned with the superintendents’ preferences and were seldom outcomes that the superintendent would not support (Brazer, Rich & Ross, 2010, p. 212).

Decision Making Models to Implement Programs

Research on how educational leaders made decisions to add a transitional kindergarten program was conducted using the four frames model described by Bolman and Deal (2008). Transitional kindergarten was defined in this study as a type of program for children chronologically of age to enter kindergarten, but developmentally behind (Laird, 2012, p. 9). Using Bolman and Deal's Four Frame Model of Leadership, this study focused on the organizational elements that influenced the decision of the leaders (Laird, 2012, p. 5). To fully examine the process of decision making using the four frame model, it is important to have an understanding of each. Table 3 below describes each frame and provides an overview of the model.

Structural Frame	The organization is viewed as a machine with members filling clearly defined roles
Human Resource Frame	The organization is viewed as places that provide energy and fulfill needs of its people
Political Frame	The organization is viewed as political arenas
Symbolic Frame	The organization focuses on symbols and culture

Table 3 Source: Bolman and Deal, 2008

The four leadership frames encourage leaders to view situations through multiple lenses (Bolman & Deal, 2008). This framework has been suggested as very appropriate for understanding schools because leaders can move comfortably between them (Laird, 2012, p. 6). The results of this study showed evidence from each frame impacting the decisions of the leaders with the human resource frame having the greatest influence on the decision making process when adding a transitional kindergarten program (Laird,

2012, p. 126). Statements such as “the program was added to meet the needs of children” lead the researcher to make this assumption (Laird, 2012, p. 82).

Decision Making on Funding Universal Prekindergarten

Researchers also focused on specific funding for universal prekindergarten. For instance, Casto and Sipple (2011) studied decision making processes used by educational administrators regarding the level of community partnering that is required to implement statewide universal prekindergarten programs in five rural districts in New York State. Arum (2000), as cited by Casto & Sipple (2011), asserts that educational leaders are subject to influences on decision making as a result of being a part of a local school community as well as a broader institutional community. The local school community consists of the immediate geographic area such as the neighborhood along with its relative wealth, cultural elements and social capital of the local residents (Casto & Sipple, 2011, p. 135). The institutional community includes people and organizations that the school is responsive to such as the district, professional organizations, superintendent groups and state and federal education departments (Casto & Sipple, 2011, p. 135). Scott’s (2001) model of institutions was used in this study to help examine decision making processes and situates itself on three pillars that he terms categories of constraint—*regulative, normative and cultural-cognitive*. Decisions made in a regulatory manner include institutional structures such as laws or rules that constrain behavior (Casto & Sipple, 2011, p. 140). Decisions made in a normative manner include the elements of an institution that constrains behavior through a system of values,

expectations, norms and roles (Casto & Sipple, 2011, p. 140). Decisions made in a cultural-cognitive manner are hard to see and identify because of the embedded nature such as shared understanding or reality and the interaction between cultural influence and the individuals process of interpretation (Casto & Sipple, 2011, p. 140).

The results of this study indicated that educational administrators were motivated by all three of Scott's (2001) categories of constraint (Casto & Sipple, 2011, p. 150). In one district in the study, district administrators were conscious of the regulations of universal prekindergarten and also understood the professionalized view of offering prekindergarten which motivated them to make decisions based on the local belief that implementation of universal prekindergarten was needed (Casto & Sipple, 2011, p. 160). A superintendent, according to this study, had a vision for a prekindergarten through twelfth grade and recognized that universal prekindergarten would play an important role in improving literacy and future graduation rates (Casto & Sipple, 2011, p. 160). Lastly, another district examined in this study anticipated that universal prekindergarten would be offered and, therefore, had an unspoken expectation of the inclusion of a universal program within the district (Casto & Sipple, 2011, p. 160).

Rational Decision Making

As stated elsewhere, decision making is a critical responsibility that school leaders must address, particularly at the district level. Decision making can be defined as a cognitive process resulting in the selection of a belief or a course of action among several alternative possibilities. Given its importance, decision making has received

considerable attention by practitioners and researchers alike in an effort to develop guidelines or frameworks that may guide school leaders as they attempt to make decisions that will ultimately result in the best outcome for all students.

One such a framework is known as rational decision making (Hart, 2018; Kowalski, 2013; Sadler-Smith & Shefy, 2004, Simon, 1993). This framework involves using a systematic process to arrive to a solution by identifying a problem, generating alternatives, examining options and implementing a solution (Kowalski, 2013).

Early accounts of decision making with a rational approach suggest that effective decisions are made when the decision maker uses a systematic process and understands what the decision is about as well as the fundamental certainties the decision must fulfill (Drucker, 1967). Decisions are made using the defined elements of clarifying and outlining the problem, specifying the answer to the problem, deciding what is right rather than acceptable, building the decision into action and then testing the validity and effectiveness of the decision against the actual course of events of how the decision is being carried out, however, the judgement of the decision maker as a part of a logical process is also essential (Drucker, 1967). Therefore, individuals who follow a rational process must think of decision makers as rational beings (Kowalski, 2013).

Others argue that the rational decision making process encompasses three actions: identifying and attending to problems, considering alternatives or solutions, and evaluating and choosing among solutions (Simon, 1993). By finding the problem, individuals and organizations should decide what to focus on and then set priorities appropriately, craft alternative solutions that have promise to address the selected

priorities, and then judge how the resulting solutions have addressed the initial problem (Simon, 1993). However, this author also finds limits to the rational model. For instance, time and ability to understand the problem, neglect of searching for solutions and inattention to correctly anticipating possible outcomes. Simon (1993) suggests that given these limitations, rationality is bounded. A study analyzing both the rational and bounded rationality models suggests that when following a rational process, decisions are made under certainty (Lunenburg, 2010). On the other hand, when using a bounded rationality approach, decision makers “are limited by time constraints, cost, and the ability to process information so they generate a partial list of alternative solutions to the problem based on their experience, intuition, and advice from others, and perhaps even some creative thought. Rationality is, therefore, “limited” (Lunenburg, 2010, p. 8).

Some define decision making as the “learned habitual response pattern exhibited by an individual when confronted with a decision situation” (Scott & Bruce, 1995, p. 820). A study conducted to analyze four decision making styles included an exploration of the rational decision making style which was characterized by a “thorough search for and logical evaluation of alternatives” (Scott & Bruce, 1995, p. 820). Other decision making styles included in this study were that of an *intuitive* style characterized by depending on feelings, a *dependent* style described as searching for advice from others, and an *avoidant* style described as attempting to avoid decision making. Results from this study indicated that individuals do not rely on a single decision making style, but rather a combination of styles when making decisions (Scott & Bruce, 1995, p. 829). Further, rational decision makers were found to consider problems rather than avoid them

and to take deliberate and logical approaches to making a decision (Scott & Bruce, 1995, p. 830).

According to others, “the rational model requires a step-by-step approach, including problem definition, generating alternatives, and implementing a solution after examining all options” (Kowalski, 2013, as cited by Hart, 2018, p. 16). However, such an approach may be influenced by certain factors that must be considered. For instance, a study to determine the factors that influence superintendents’ decisions when resolving professional dilemmas and whether the superintendents used a rational or intuitive process was conducted (Hart, 2018). Results of this study highlight three main factors, namely, the students well-being, the public context, and opinion of advisor (Hart, 2018). In addition, this study pointed to the idea that superintendents used a rational process when time was not a factor that limited the decision making process (Hart, 2018, p. 20). Further, superintendents described “integrating a rational approach and their intuition, with neither used with the complete exclusion of the other” (Hart, 2018, p. 20). This suggests that superintendents may rely on their knowledge and feelings without conscious reasoning depending on the essence of the identified problem, as well as on the guidelines of rational decision-making, but must be mindful of the need to balance rationality and intuition in decision making (Sadler-Smith & Shefy, 2004, p. 88).

Davis & Davis (2003), as cited by Sadler-Smith & Shefy (2004, p. 76), argue that rational analysis is used to respond to strategic decision making in organizations and necessitates that information be collected, collated, analyzed, and interpreted so that alternatives can be formulated and a logical choice can be arrived to by the decision

maker. Rationality is seen as the norm in strategic decision making and is justified by the assumption that executives are inherent rational beings who seek to maximize outcomes in organizations where successful strategies are the result of deliberate planning (Sadler-Smith & Shefy, 2004, p. 77). The rational method can undoubtedly lead to effective decisions, however, when outcomes are difficult to predict through rational means, executives need to “acknowledge the uncertainties, be more tolerant of ambiguities, and be able to respond to complexities in pragmatic, fast ways in the face of the unknown” (Sadler-Smith & Shefy, 2004, p. 78). Additionally, executives must be able to recognize and rely on the potential of their intuition (Sadler-Smith & Shefy, 2004, p. 78). “They must be aware that seniority, or expertise level, could legitimize the use of intuitive approaches over rational methods, however, executives were found to still feel required to display rationality in order to convince others of the legitimacy of their actions” (Sadler-Smith & Shefy, 2004, p. 80). Finally, according to Sadler-Smith & Shefy (2004, p. 88), rational and intuitive systems should be woven together so that decision makers can make intelligent use of intuitive judgements. Further, Oliveira (2017) asserts that decision and behavior are thought to be the core characteristics of decision making phenomena because both the beliefs about specific events and humans’ subjective reactions to them are involved in the process and of human thought and reaction to the external world.

While researchers suggest that both rational thinking and intuition have a place in selecting a course of action or solution with optimal results, this study aimed to determine the extent to which superintendents’ decision making reflects rational decision making

when considering the need to support and finance prekindergarten programs. Therefore, the rational decision-making model advanced by Schoenfeld (2011) was employed to conduct an analysis of participants’ decision-making process.

Step in Process	Description
Step 1—Identify the problem	Problem is identified along with an orientation to the context of the situation
Step 2—Generate alternatives	Alternatives (solutions) are generated to address the identified problem
Step 3—Evaluate alternatives	Determine if alternative is feasible, satisfactory and impactful
Step 4—Choose an alternative	Choose the alternative that will best assist attainment of the goal
Step 5—Implement the decision	Implement the decision choice
Step 6—Evaluate the decision effectiveness	Monitor and evaluate if the alternative is effective and met the goal

Table 4 Source: Schoenfeld, 2011

While the above rational decision making process was advanced by Schoenfeld (2011), others have contributed to the body of literature, thus expanding our understanding of the six steps as outlined above. These include:

Identifying the problem. Clear identification of the problem is a critical initial step in the decision making process which requires focusing on the specific situation. As Kepner & Tregoe (2005), suggest, providing a strong definition of the problem affects the quality of the decision and subsequent steps.

Generating alternatives. Once the decision maker identifies the problem, there is a need to bring potential courses of action to consideration. In order to do this, “decision makers must determine the anticipated goals they expect to realize through their decision and learn as much as possible regarding how likely each alternative will

assist in achieving the anticipated outcome” (Schoenfeld, 2011, p. 19). Further, decision makers may use brainstorming as a way to generate various courses of action to resolve the problem at hand (Garvin, 2008, p. 32).

Evaluating alternatives. After the problem has been identified and alternatives have been generated as possible solutions to the problem, it is imperative to judge the merit and potential of the selected alternatives. Consideration of whether the alternative is feasible or easily accomplished as well as satisfactory to address the whole problem helps to evaluate the impact of the identified alternatives during this part of the decision making process (Schoenfeld, 2011, p. 19).

Choosing an alternative. Once all alternatives have been analyzed, the best possible one should be selected. When choosing the best alternative, decision makers make an attempt to choose the solution that will best address the problem that is the most feasible, satisfactory and impactful with achieving the desired goal (Schoenfeld, 2011, p. 20).

Implementing the decision. After choosing the alternative that will address the problem, the next step is the implementation and carrying out of the decision (Schoenfeld, 2011, p. 20). Suggestions for successful decision implementation are provided by Ahmed (2011) who recommends that the alternative be clearly understood and accepted as the necessary course of action, that resources be provided to allow the alternative (solution) able to be successful, and that a timeline be established that clearly assigns responsibilities to those who are implementing the decision.

Evaluating decision effectiveness. The final step in this rational decision making process is to measure the effectiveness of the decision relative to how it helps produce the desired result (Schoenfeld, 2011, p. 20). As decision-makers evaluate the effectiveness of the decision, the process becomes a continuous one (Lunenburg, 2010).

Reported limitations of the rational approach, however, are that the decision maker may not always have the time or ability to fully understand the problem, explore multiple solutions and predict all of the possible outcomes resulting limited rationality (Lunenburg, 2010). Decision makers, therefore, may undergo the process known as “satisficing” where they use their intuition, experience, and advice from others to come to a compromise solution (Lunenburg, 2010).

Summary

This chapter included an examination of the literature related to prekindergarten programs. A review of the development of prekindergarten was presented. The chapter continued with a review of the importance of prekindergarten (Magnuson & Shager, 2010; Ma, Nelson, Shen, et. al., 2015; Goldstein, Warde & Peluso, 2013; Plevyak & Morris, 2002; Magnuson, Ruhm & Waldfogel, 2004), low-income family’s need for prekindergarten (Semega, Fontenot & Kollar, 2017; Jenkins, 2014; Heckman & Masterov, 2007), and the funding models available to implement prekindergarten programs (Barnett & Carolan, 2013; Keys, Farkas, Burchinal, et.al, 2013; Jenkins, Farkas, & Duncan et. al, 2016; Stone, 2008). How policy influences funding prekindergarten was also examined (Karch, 2013; Brown & Sumsion, 2016) along with

decision making models (Noppe, Yager, Webb, et al., 2013; Brazer, Rich & Ross, 2010; Casto & Sipple, 2011; Oliveira, 2017). Finally, rational decision making was reviewed (Kowalski, 2013; Simon, 1993; Drucker, 1967; Scott & Bruce, 1995; Hart, 2018; Sadler-Smith & Shefy, 2004; Lunenburg, 2010, Schoenfeld, 2011).

While abundant literature exists that outlines the benefits of investing in prekindergarten programs for children as well as the advantages of children attending prekindergarten, attention is needed to identify how decisions are actually made to fund full day prekindergarten programs. Most studies have focused on decision making in general and some studies have focused on the decision making process regarding implementing prekindergarten. Few studies, however, have focused on decision making for funding full day prekindergarten programs for low-income families. Additional qualitative studies on decision making relative to full day prekindergarten funding would benefit district leaders with being cognizant of the decision making process they use to arrive at decisions. Therefore, further research is needed to explore how superintendents characterize their decision making when funding full day prekindergarten programs as well as the factors considered in the process.

CHAPTER THREE: METHODOLOGY AND PROCEDURES

Early childhood programs are geared toward boosting the development of prekindergarten age children so that they are ready to enter kindergarten (Duncan & Magnuson, 2013). Children who live with families of poverty have additional challenges that must be overcome in order to arrive to kindergarten as prepared as their higher socioeconomic peers (Hustedt & Barnett, 2011). This chapter describes the methodology and procedures that were used in this study. It presents the purpose, research questions that framed this inquiry, the research design, site description, participant selection and data collection process that were employed and the procedures that were used to analyze the data that was collected.

Purpose of the Study

The purpose of this research was to examine decision making of superintendents regarding funding full day prekindergarten programs in schools that serve low-income families. In addition, factors that might influence their decision making were also a focus of this study.

Research Questions

The following research questions were addressed:

- 1) How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families?
- 2) What factors do superintendents consider to make full day prekindergarten funding decisions?

- 3) How do superintendents' decision making practices regarding full day funding for prekindergarten reflect rational decision making?

Research Method and Design

Methodology is influenced by core philosophies of science and involves the actual practice of qualitative inquiry (Hays & Singh, 2012). The constructivist framework is a worldview in which individuals seek to understand the world through subjective meanings of their experiences (Creswell, 2013). The goal of research using this view is to rely heavily on the participant's view of the situation (Creswell, 2013). Since understanding is formed through the interaction with others, this methodology fits this research as the intent was to construct meaning from the perceptions of superintendents regarding their decision making practices.

A qualitative research design was utilized in this study. Creswell (2013) defines the qualitative approach as "one that begins with assumptions that inform the study of research problems addressing the meaning individuals ascribe to a social or human problem". Qualitative research allows researchers to gather up-close information through directly talking to people and seeing them behave in their natural setting (Creswell, 2013). Creswell (2013) notes that we use qualitative research to find a detailed understanding of the issue and when we want to empower individuals to share their stories. Since the study was to examine decision making of superintendents regarding how they make decisions for full day prekindergarten funding, the use of the qualitative method was appropriate as it allowed the researcher to obtain detailed information.

According to Creswell (2013), qualitative approaches allow the researcher to “collect data in the field at the site where participants experience the issue or problem under study”. Further, in qualitative research, the researcher is a key instrument. The researcher collects data through observing behavior and interviewing participants (Creswell, 2013). Additionally, qualitative studies allow researchers to gather multiple forms of data such as interviews, observations and documents (Creswell, 2013).

Although the use of qualitative methods has benefits, it also has some limitations. Qualitative research is heavily dependent on the individual skills of the researcher (Creswell, 2013). As such, researcher error may exist due to the limited experience on the part of the researcher. Researcher bias is also present in qualitative research design as a result of the considerable time spent in the field at research sites (Creswell, 2013). The researcher is directly involved in the manipulation of data as a participant in the process and therefore the inherent bias of the researcher must be acknowledged (Creswell, 2013). To address these limitations, the researcher will report multiple perspectives of the findings. Another limitation of qualitative research design is that it often only includes a small sample size that cannot be generalized to larger populations (Creswell, 2013). The researcher included rich descriptions in the report so that a deep understanding of the phenomenon could be examined (Creswell, 2013).

A multiple case study was employed as the specific research design. Yin (2009) asserts the case study approach allows the researcher to develop an in-depth understanding of multiple cases or explore an issue using the cases as a specific illustration. Researchers should identify if their case involves an individual, several

individuals, a program, an event or an activity (Yin, 2009). For the purposes of this study, the case study involved several individuals at multiple locations.

Description of Site and Sample

Site selection should be guided by the focus of the research and study (Hays & Singh, 2012). Since this research study attempted to examine decision making of superintendents regarding funding full day prekindergarten programs in schools that serve low-income families, three districts were selected according to the following criteria:

1. Districts with at least 25,000 students and offer full day prekindergarten programs were selected for this study.
2. Districts that are considered Title I based on the number of low-income students they serve were selected for this study.

A purposeful sampling method was used to select three superintendents for this study. Purposeful sampling is a technique that allows the researcher to select information rich cases that when studied will illuminate the question under study (Patton, 2002). This method was the most suitable when determining the considerations of superintendents relative to how they make decisions for funding full day prekindergarten programs. When a researcher uses select individuals and sites for study, an attempt is made to “purposefully inform” an understanding of the research problem (Creswell, 2013).

The size of the sample in qualitative research depends largely on the degree to which the research purpose is met (Merriam, 2002). Qualitative methodologists agree

that the size of the sample should be consistent with the number of participants needed to answer the proposed research questions and the number should be guided by the study's purpose (Patton, 2002). Through a comprehensive sampling method, the researcher selected candidates who were able to provide the depth of information needed for study (Patton, 2002). A total of three participants were selected according to the following criteria:

1. All participants selected had experience with decision making regarding funding for full day prekindergarten programs at the district level.
2. Superintendents selected had a minimum of two years in their role.
3. Participants selected served in a large public school system in a southern central state.

Data Collection Protocols

Hays and Singh (2012) assert that research questions are a guide for data collection and that the methods used to collect data need to be flexible. Maxwell (2005) asserts that the use of multiple methods can add to the depth of the data collected. As such, this study utilized face to face interviews, observations and documents.

Interviews

Interviewing can be thought of as a series of steps in a procedure and is supported by authors such as Kvale and Brinkmann (2009) and Rubin and Rubin (2012).

According to Kvale and Brinkmann (2009), interviews have seven steps that produce a logical sequence of stages that include determining the inquiry, designing the study,

interviewing the participants, transcribing the dialogue, analyzing the data, verifying the validity of the data and finally reporting. Rubin and Rubin (2012) assert, however, that interviews should be conducted in steps, but that the sequence should not be fixed. The researcher, using this latter method, would be able to change the questions asked during the interview. For the purposes of this study, the researcher adhered to the method that best supported getting the most useful information to answer the research questions. The interviews included questions to gain background and demographic data of the participant, “value” questions to seek the participant’s personal belief about funding for prekindergarten, and “knowledge” questions to learn how much the participants understood about kindergarten readiness and how they make decisions to fund prekindergarten programs (Hays & Singh, 2012).

Data for this study was obtained from participants through individual interviews using a semi-structured interview protocol. Open-ended interview questions in a semi-structured format were used. The researcher had the option to ask questions “out of order” and follow the flow of the discussion. This protocol was developed by the researcher and a pilot interview was conducted with a superintendent of a neighboring district. The participant chosen for the pilot interview will had the same characteristics as the participants in the study. The use of pilot interviews enhanced the data collection instrument and allowed the researcher to practice the interview process before conducting official data collection that would be used in the study. Yin (2009) recommends pilot testing as a way to refine data collection plans and develop relevant lines of questions.

The practice of piloting the interview questions also ensure validity and reliability (Hays & Singh, 2012).

Observations

Observations used in qualitative research are primary resources for data collection (Hays & Singh, 2012). Patton (2002) notes benefits for the use of observations as allowing the researcher to capture and understand the context and to get details of a situation first hand. Given that this study examined how superintendents make decisions about funding full day prekindergarten programs, observing the natural setting was appropriate. The researcher observed superintendents during meetings regarding the costs and benefits of early childhood programs and funding practices of prekindergarten. The role of the researcher during observations was to attempt to document the actions of study participants during venues in which superintendents were engaged with decision making concerning full day prekindergarten programs (Patton, 2002). This type of observation allowed the researcher to note the participants exhibiting naturally occurring behaviors (Hays & Singh, 2012) and interactions with those involved in the decision making meetings.

Document Review

Written materials can provide insight to participants' experience with a phenomenon (Hays & Singh, 2012). In this study, documents such as reports and meeting minutes were used to gain further understanding of the decision making process superintendents use regarding funding full day prekindergarten programs.

Data Collection Procedures

Prior to any research being conducted, the researcher requested approval from the Institutional Review Board (IRB) office at the University of Texas at Austin. After receiving approval from the IRB at the University of Texas at Austin, the researcher piloted the interview questions with a superintendent from an alternate district. Approval from the districts that were included in the study was obtained as well as permission from the district where the interview questions were piloted. The researcher then began contacting the superintendents purposefully selected for this study who met the selection criteria. Phone calls were made first to set up a meeting for the purpose of introducing and formally inviting participants into the study. Interviews were scheduled to occur at the office of the participants and took place at a time and location convenient for the participant. Interviews lasted up to 60 minutes each. Observations of meetings where decisions are being made about prekindergarten funding were conducted during the regularly scheduled cabinet level or board meetings held weekly or monthly during work hours.

Data Analysis Procedures

Data collected from this study was analyzed to make sense of the responses and to determine themes in the data (Patton, 2002). Interviews were transcribed by the researcher before the coding process began. Corbin and Strauss (2008) assert that coding occurs in three stages: open coding, axial coding and selective coding. For this study, the researcher used open coding to develop categories of information (Patton, 2002). These categories were reviewed and adjusted to inform themes that emerged. The

researcher also use axial coding as a process of relating categories to their subcategories (Corbin & Strauss, 2008). Axial coding integrates and synthesizes the themes obtained from coding to create a connection to the major element of study (Corbin & Strauss, 2008). Finally, the researcher used selective coding to establish a central category that connected all of the themes derived from the coding process (Corbin & Strauss, 2008). Selective coding allowed the researcher to create a storyline from the data (Creswell, 2013).

Research quality measures that were used during this study to maximize trustworthiness were to consider the validity of the research. Creswell (2013) asserts that validity in qualitative research is used to ensure the accuracy of the data. Triangulation was used as a technique to cross-check information gathered in order to locate commonalities in the data (Creswell, 2013). Triangulation was further accomplished by reviewing data collected from at least 3 to 4 interviews and observations (Creswell, 2013). This study relied on information gathered from three participants so the triangulation of data was completed by comparing information across each interview and observation. A member checking strategy was employed to further establish trustworthiness by requesting that participants review interview transcripts for accuracy (Guba & Lincoln, 1994). Finally, descriptive field notes were developed during the observation period and captured details of the setting observed (Hays & Singh, 2012).

Summary

This chapter provided a description of the methodology and procedures that were used in examining the decision making of superintendents regarding funding full day prekindergarten programs. The chapter began with identifying the purpose of the study and accompanying research questions. Qualitative research methodology was identified as the approach that was used in this study along with the chosen research design of the use of a case study. Information was given about the sampling process and the procedures and instruments that were used during the data collection and analysis process. In the following chapter, data that was obtained during the study is presented along with the major themes identified from the research.

CHAPTER FOUR: FINDINGS

Introduction

This chapter presents the findings of the study and an analysis of the data collected from face to face interviews, observations, district documents and district websites. Research procedures and findings are also presented.

The purpose of this study was to examine decision making of superintendents regarding funding full day prekindergarten programs in schools that serve low-income families. Additionally, using qualitative methods such as face-to-face interviews and document analysis, the researcher explored the extent to which the participants' decision making practices reflect rational decision making. The following research questions guided the research process and determined the methods in the study:

1. How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families?
2. What factors do superintendents consider to make full day prekindergarten funding decisions?
3. How do superintendents' decision making practices, regarding funding for full day prekindergarten, reflect rational decision making?

A brief overview of the research method that was used is presented. Next, a description of the school districts where the investigations were conducted is provided followed by an introduction of each of the three superintendents who participated in the study. Lastly, each of the three research questions is addressed.

Study Context

The present study was completed in school districts located in a southern central state and three superintendents participated. For the purposes of confidentiality, this study

refers to the school districts as District A, District B and District C. This section offers a profile of each district. An exploration of the school districts' documents and websites provided information regarding the vision, mission, strategic goals and priorities, and demographics.

District A Profile

District A sits in the core of a large city with a population of 967,000 people. District A covers 172 square miles over 5 counties and has an upward growth rate each year. The community that District A serves is comprised of 49% White, 8% African American, 35% Hispanic, and 8% other. Twenty-four percent of the city has a primary language of Spanish and the mean household income is \$91,000 (Retrieved from District A City Website, January 18, 2019).

A vision statement communicates the desired state of being of an organization. As reflected in District A's district documents, the vision states "District A will reinvent the urban school experience" (Retrieved from District A, November 5, 2018).

A mission statement guides the actions and communicates the intended manner an organization will realize its vision. As such, District A's documents reveal its commitment to "fulfilling the mission put forth by the state of Texas, which is to ensure that all Texas children have access to a quality education that enables them to achieve their potential and fully participate now and in the future in the social, economic, and educational opportunities of our state and nation" (Retrieved from District A, November 5, 2018). Further, District A is focused on mutual commitments and expectations for all stakeholders. The expectation of District A is for all students to graduate on-time and to prepare students for college, career, and life in a highly changing and competitive world (Retrieved from District A, November 5, 2018).

Strategic Goals and Priorities. District A’s goals and priorities are communicated as strategies and commitments and are available to the public through its website. The seventeen strategies of the district are geared toward “reinventing the urban school experience” and are grouped within eleven commitments. The stated commitments are: 1) Achieve excellence by delivering a high-quality education to every student, 2) Implement the transformative use of technology, 3) Ensure all students perform at or above grade level in math and reading, 4) Prepare all students to graduate on time, 5) Develop civically-engaged students, 6) Create a positive organizational culture that values customer service and every employee, 7) Develop effective organization structures, 8) Generate, leverage, and utilize strategically all resources, 9) Engage authentically with students, parents/guardians, teachers and community, 10) Build ownership in District A among internal and external stakeholders, and 11) Develop and maintain community partnerships. The district’s strategies and commitments are represented in Table 5.

Table 5—Commitments and Strategies of District A	
Commitment 1: Achieve excellence by delivering a high-quality education	Strategy 1.1—Individualize teaching and learning
	Strategy 1.2—Provide students with a variety of unique opportunities for unlimited learning
	Strategy 1.3—Provide services and supports for every student on every campus
Commitment 2: Implement the transformative use of technology	Strategy 2.1—Integrate technology into curriculum and instruction
	Strategy 2.2—Provide flexible learning environments
	Strategy 2.3—Promote technology through organizational structure
Commitment 3: Ensure all students perform at or above grade level in math and reading	Strategy 3.1—Improve the reading and writing of all students
	Strategy 3.2—Improve the numerical fluency and problem solving skills of all students

	Strategy 3.3—Support early childhood, pre-k, and early grade levels to promote math and reading for all students
Commitment 4: Prepare all students to graduate on time	Strategy 4.1—Provide high quality interventions and resources to support all students
Commitment 5: Develop civically-engaged students	Strategy 5.1—Provide opportunities for civic engagement to all students
Commitment 6: Create a positive organizational culture that values customer service and every employee	Strategy 6.1—Create a positive organizational culture that values customer service and every employee
Commitment 7: Develop effective organizational structures	Strategy 7.1—Ensure organizational capacity
Commitment 8: Generate, leverage, and utilize strategically all resources	Strategy 8.1—Acquire necessary resources
Commitment 9: Engage authentically with students, parents/guardians, teachers and community	Strategy 9.1—Actively involve and value all families
Commitment 10: Build ownership in District A among internal and external stakeholders	Strategy 10.1—District A schools will be the premier choice for families
Commitment 11: Develop and maintain community partnerships	Strategy 11.1—Build relationships with the city of X and other public, private, and nonprofit entities

Table 5 Source: District A’s Website

Demographics. The current enrollment of District A is approximately 80,000 students. The district’s student ethnicity is 55% Hispanic, 30% White, 7% African American and 8% other. District A’s teacher ethnicity is 30% Hispanic, 61% White, 6% African American and 3% other. Students considered as English Language Learners represent 27% of the total population and 52% of students are considered low socio-economic status.

District A offers full day prekindergarten programs for eligible four-year-old students in 49 school sites and half day programs for eligible three-year-old students in 7 school locations. The district also offers tuition based prekindergarten for non-eligible three and four-year-old students. An exploration of district documents revealed that

5,046 students are served in the prekindergarten program of the district. A review of the departmental website showed eligibility described as follows: *District A prekindergarten program serves children who turn 3 (Pre-K 3) or 4 (Pre-K 4) by September 1 of the current year and who are 1) Limited English proficient, 2) educationally disadvantaged, 3) A child of an active military parent, 4) A child of a parent who was injured or killed during active military duty, 5) A child who has been in the care of the Department of Family and Protective Services, 6) A child who is homeless, or 7) A child of a person who received the Star of Texas award as a peace officer.*

District B Profile

District B is located city center of a large growing metropolitan area of approximately 874,000 people. District B covers 210 square miles over 5 cities within the county. The community that District B serves is comprised of 41% White, 19% African American, 34% Hispanic, and 6% other. Spanish is spoken by 23% percent of the city as its primary language and the mean household income is \$54,876 (Retrieved from District B City Website, January 18, 2019).

As reflected in District B's district documents, the vision of District B states that the district is "Igniting in every child a passion for learning" (Retrieved from District B, November 5, 2018). District B's documents revealed its mission as "preparing all students for success in college, career, and community leadership" (Retrieved from District B, November 5, 2018).

Strategic Goals and Priorities. District B's goals and priorities are available to the public through documents on its website. The district operates under four key strategic goals. The stated goals are 1) Increase student achievement, 2) Improve

operational effectiveness and efficiency, 3) Enhance family and community engagement and 4) Develop a workforce that is student and customer-centered.

Along with these key strategic goals, District B believes in the following values that serve as the district’s priorities. The stated values noted in district documents are: Student Achievement, Stakeholder Collaboration, Leadership Development, Respect for Diversity, Equity in Access, Perseverance, and Commitment and Continuous Improvement. Table 6 shows a representation of these goals and core values.

Table 6: Goals and Core Values of District B	
Goals of District B	Core Values of District B
<ul style="list-style-type: none"> • Increase student achievement • Improve operational effectiveness and efficiency • Enhance family and community engagement • Develop a workforce that is student and customer-centered 	<ul style="list-style-type: none"> • Student Achievement • Stakeholder Collaboration • Leadership Development • Respect for Diversity • Equity in Access • Perseverance and Commitment • Continuous Improvement

Table 6 Source: District B’s Documents on Public Website

Demographics. The current enrollment of District B is approximately 86,000 students. The district’s student ethnicity is 62% Hispanic, 11% White, 23% African American and 4% other. District B’s teacher ethnicity is 22% Hispanic, 54% White, 22% African American and 2% other. Students considered as English Language Learners represent 31% of the total population and 77% of students are considered low socio-economic status. District B provides full day prekindergarten in 55 locations across the district. District B does not offer prekindergarten for three-year-old children.

An examination of district documents reveals that “In District B, there is a place for every prekindergarten student. If your child does not meet federal qualifying

guidelines, he or she is designated as a Universal Pre-K (UPK) student. Individual campuses must serve the needs of qualifying prekindergarten students first and then may fill available slots with UPK students” (Retrieved from District B, November 5, 2018). District B also offers tuition based prekindergarten for four year olds residing outside of the district. District documents reveal that 5,373 students are currently served in prekindergarten classes in the district.

District C Profile

District C sits in the middle of a large, diverse metropolitan area with a population of 1.2 million people. District C covers 384 square miles over 12 counties and is comprised of 15 cities. The community that District C serves is comprised of 29% White, 24% African American, 41% Hispanic, and 5% other. Thirty-nine percent of the city has a primary language of Spanish and the mean household income is \$43,000 (Retrieved from District C City Website, January 18, 2019).

District C is dedicated to reaching its goals. To that end, District C’s documents reveal the vision of the district as “District C seeks to be a premier urban school district” (Retrieved from District C, November 6, 2018). To achieve its vision, District C has a mission statement that guides the actions that employees take on a daily basis. District documents reveal District C is committed to “educating all students for success” (Retrieved from District C, November 6, 2018).

Goals and Priorities. District C has four student outcome goals that govern the day to day actions of the employees. The stated goals on the district’s website are 1) Student achievement on all state assessments in all subject areas at Approaches or above will increase from 66 percent to 75 percent by 2022 , 2) Student achievement on the third-grade assessment in reading at Approaches or above will increase from 62 percent

to 75 percent by 2022, 3) Student achievement on state assessments in two or more subjects at Meets or above will increase from 34 percent to 40 percent by 2022, and 4) Student participation in extracurricular or co-curricular activities will increase from 59 percent to 65 percent by 2022. District C works to achieve its goals through four key priorities that are illustrated in Table 7.

Table 7: Student Outcome Goals and Priorities of District C			
SO Goal 1 Student achievement on all state assessments in all subject areas at Approaches or above will increase from 66 percent to 75 percent by 2022	SO Goal 2 Student achievement on the third-grade assessment in reading at Approaches or above will increase from 62 percent to 75 percent by 2022	SO Goal 3 Student achievement on state assessments in two or more subject at Meets or above will increase from 34 percent to 40 percent by 2022	SO Goal 4 Student participation in extracurricular or co-curricular activities will increase from 59 percent to 65 percent by 2022
Priority 1:Strategic Compensation	Priority 2: Early Learning	Priority 3:Collegiate Academies	Priority 4:Public School Choice

Table 7 Source: District C’s Website

Demographics. The current enrollment of District C is approximately 155,000 students. The district’s student ethnicity is 70% Hispanic, 5% White, 22% African American, and 3% other. District C’s teacher ethnicity is 29% Hispanic, 31% White, 35% African American, and 5% other. District documents reveal that 44% of students are Limited English Proficient and 88% are low socio-economic status (Retrieved from District C, November 6, 2018).

District C offers full day prekindergarten programs for eligible four-year-old students in 145 of its schools. The district also offers half day prekindergarten programs for eligible three-year-old students in 61 school locations. Tuition based prekindergarten for non-eligible three and four-year-old students is also available at 30 school sites.

District data reveal that 11,175 students are being served in prekindergarten programs in the district. A review of the departmental website revealed eligibility described in this way: District C offers both free and tuition based prekindergarten programs. For both programs, a child must be three or four years old on or before September 1 of the current year to be eligible. Children can attend free prekindergarten in District C if they meet one of the following: 1) *The child is eligible to take part in the free or reduced school lunch program,* 2) *The child is unable to speak and comprehend the English language,* 3) *The child is homeless,* 4) *The child is a dependent of an active duty member of the U.S. or Armed Forces,* 5) *The child is or has been in foster care,* or 5) *The child is a dependent of a recipient of the Star of Texas Award.*

Table 8 represents a demographic summary of all participating districts in this study (Retrieved from District A, District B, District C, November 7, 2018).

Table 8: Participating District Demographics			
	District A	District B	District C
Total Enrollment	80,000	86,000	155,000
Hispanic Students	55%	62%	70%
White Students	30%	11%	5%
African American Students	7%	23%	22%
Limited English Proficient	27%	31%	44%
Economically Disadvantaged	52%	77%	88%
Half or Full Day Prekindergarten Programs Offered for 3 Year Olds	Half	No	Half
Full Day Prekindergarten Programs Offered for 4 Year Olds	Full	Full	Full
Universal Prekindergarten Programs Offered	No	Yes	No
Tuition Prekindergarten Offered	No	Yes	Yes

Table 8 Source: Retrieved from District Websites, November 7, 2018

Participant Profiles

This study included one superintendent from each of the three participating districts. Study participants were in their role as the superintendent for at least two years at the time of this study and each has had direct experience with making decisions for funding full day prekindergarten for low-income families. All three superintendents were male and held doctoral degrees in Educational Leadership. Two of the three superintendents in this study held state Texas Superintendency Certification. The span of total years of serving as a superintendent ranged from 9-24. This study refers to the superintendents who participated as Superintendent A, Superintendent B, and Superintendent C. The profile of participants is noted and represented in Table 9 below:

Superintendent	Years in Role	Years in District as Super.	Gender	Degree Held	Texas Super. Cert. Held	Other Positions Held
A	9	5	Male	Ph.D. in Educational Leadership	Yes	Teacher AP Principal Central Office
B	16	3	Male	Ph.D. in Educational Leadership and Policy Studies	Yes	Teacher, AP Principal Central Office
C	24	10	Male	Ph.D. in Educational Leadership	Yes	Teacher Coach AP Central Office

Table 9 Source: Interview with Superintendent from District A, July 23, 2018; Superintendent from District B, August 1, 2018; Superintendent from District C, September 4, 2018.

Findings

This section presents the findings in the research according to the three research questions guiding this study. Findings for each question are described including excerpts from each interview.

Question 1: How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families?

According to participants, the decision making processes that were used when making decisions for funding full day prekindergarten were characterized as collaborative, data-driven and priority based.

Collaborative Decision Making

Collaborative decision making that included others in the decision making process emerged as one way superintendents characterized their decision making. Inclusiveness of external stakeholders such as business leaders and non-profit organizations as well as internal stakeholders such as cabinet level employees and principals were members of this collaborative process. Examples of collaborative processes include: think tank structures, cabinet level meetings, focus groups and stakeholder surveys. These processes were used to give others in the organization the opportunity to provide input on the decision being made. These processes were also used as a way to hear the voice of the stakeholder and then vet the information through smaller groups to come to the final decision.

According to the data, organizations such as school districts have internal and external stakeholders that make decisions with others, ensuring that more than one

perspective is considered. For instance, Superintendent A stated: “Decisions go through a series of layers...when we are making decisions that will impact the schools, we engage with principals at their level, then to the associate superintendents and then to the cabinet level people.” Additionally, this superintendent shared how student expectations are considered when making decisions: “Decision making always comes from what the expectations are, the goals and whether our programs are working or not.”

Superintendent B noted that working with various stakeholders such as community members, cabinet level administrators and campus personnel was a way to help build the rationale to fund prekindergarten for low-income families. He said, “It’s our responsibility to keep the district on track...when I got here, we were a very traditional kind of top-down district...we have not been on the cutting edge of change...we were good people, but we lacked systems to include others in decision making.” This superintendent further stated: “We had to change our focus...we could not depend on decisions that only came from the top because that was why we were making little growth in student achievement...it is important to make decisions for a large, urban district in a way that includes a multitude of people who represent the district and community.” He noted that “that the only way I know how to be a superintendent after sixteen years is through a collective impact model...build a cross sector collaboration of educators, business people, the philanthropic community, non-profits and faith leaders and pull the rope in the same direction.”

Superintendent C was direct and clear when characterizing the process he uses to make decisions. He observed, “It’s not about me, it’s about us...I don’t get to make decisions alone...it’s not my money...it’s not the superintendent, it’s the superintendency.” This superintendent used his experience as a forty-year veteran of education to realize that he is but one player in the decision making process. He had a

keen sense of his role and how he should carry out decision making to benefit the “will of the people”. He stated, “I’m starting my 10th year as the superintendent of this district and even in my work as a superintendent in other districts, it always comes down to how you get input from those you serve.”

While superintendents characterized their decision making process as collective in nature by considering stakeholders’ ideas other than their own, it also appears that superintendents analyze data to ensure the right decisions are being made.

Data Driven Decision Making

It appears that the superintendents in this study used some personal experience and intuition in their work to perform their leadership. However, data driven emerged as a central characteristic in how they described their decision making processes to fund full day prekindergarten for low-income families. According to the participating superintendents, data provided the most reliable information about student achievement, poverty and current research to make a decision not based solely on emotion, but on the facts of the situation. As Superintendent A asked, “What do we want our students to be, to know and be able to do? What do our data indicate on where we are making progress?” He further explained that the data related to the population he serves by saying: “Because we are a district with over 50% poverty, we have to stay on top of how our programs are working to meet the need...we have annual reviews of programs to find out where we need to make our changes.” As he thought about the students in the district, he remarked, “we have to make an impact on students and student learning...particularly for kids who historically have not done well...our data indicate that they have not done well over time and it’s up to me to question that and to use that type of data to make decisions that will help them get jobs necessary for them to be productive.”

Superintendent B spoke about data relative to child development. He stated, “The most relevant years of a child’s life developmentally is before kindergarten...90% of the brain develops before children enter school so we are all in on full day prekindergarten.” He further described student achievement data of students in his district as a metric used during decision making: “In District B, we only have 35% of third graders reading on grade level...we know that it is important to reach kids when their brains are doing the most developing and prekindergarten is it...the entire continuum from birth to third grade is the first leg on the stool.”

Superintendent C spoke about data findings from a research study that non-supporters of prekindergarten used that found funding prekindergarten as ineffective. He then described how he uses the data that he sees in his own district: “Everybody quotes the Vanderbilt study where they say that investing in prekindergarten won’t close the achievement gap in children of low-income families...one study does not make the case for me...we are getting the results we want since we have been putting an emphasis on putting our money with the four year olds.” He went on to describe what he has seen during his time as the superintendent: “It’s been four or five years for these kids who first started in prekindergarten to now be in third grade...we finally see the results...effort is good, but results are better.”

Data use by superintendents informs their decisions to fund full day prekindergarten for low income families. Furthermore, making decisions based on priorities was also a theme that emerged from the interview data.

Priority Based Decision Making

Decisions that were based on a priority, or greatest importance, was a characteristic of decision making according to information gathered through interviews

and district records. Priorities set by the superintendent informed the strategic initiatives of the school district. Priority based decisions, therefore, allowed for the superintendents to speak of their districts' long-term and short-term decisions to fund prekindergarten. For instance, Superintendent A noted that prioritization occurs each year as a function of the five-year strategic plan. He explained that each year, his district has to make decisions on what they will and will not fund. The constituency seemed to play a role in how priorities are set each year. He remarked: "Having prekindergarten is a community expectation...I've always kept funding full day prekindergarten close to me and I'm very fortunate here that they [constituency] are very much in favor of full day prekindergarten." The superintendent acknowledged how much prekindergarten is much about literacy and he drew from his own experiences of school to support his belief that young students should be provided with positive school environments: "When I was a teacher, I taught grades 1 through 5 and when I experienced students in my class who didn't know how to read, that stayed with me...I always knew that making things equitable for kids would help them get a good start and that prekindergarten must be a priority."

Superintendent B used his collective approach to decision making when setting priorities for decisions: "I worked with them [external and internal stakeholders] and knew that I couldn't get them aligned on all three of my priorities as the superintendent...they jumped on the early childhood piece so I doubled down on it so my other priorities could fall into place." According to the data, this superintendent had three major initiatives that served as priorities for the school district: 1) Early Literacy, 2) Middle Years Math, and 3) College and Career Readiness. These three priorities are nestled in the district's four major goals as noted in the district's improvement plan. The superintendent disclosed how these few priorities came to be: "When I got here, we had

800 programs and multiple initiatives and it was a mishmash of an executive director going to a conference, falling in love with a math program and implementing it on Monday.” He continued to explain how that was a factor in student achievement declining over the last decade: “What I have tried to do here in the last two and a half years is build some systems of accountability and narrow the focus...so right now we don’t have 800 initiatives, we have three.” The superintendent simply stated “prekindergarten is one of my top priorities because when you build a house, you want to have a strong foundation.”

Superintendent C worked previously in the district and then returned which gave him perspective on how the district’s priorities had evolved: “We had a pretty decent program, but when I left and came back...it was very obvious to me that [prekindergarten] became a strategic initiative even though they didn’t call it that.” This superintendent also used his philosophy on including others in decision making to set his priorities. He set out to hear from 100 people through asking them the same 10 questions as a part of his re-entry plan into the district. Below is an excerpt from his discussion.

“When I asked 100 people 10 questions, one of the questions asked what they were the proudest of that has happened in the last three years. One of the things that kept coming up was the strong, strong support for early childhood education, which was different from my first administration in this district. So I learned that we have internal and external forces supporting the drive and prekindergarten became an obvious priority.”

Superintendent C believed that decision making was not solely about individual preferences and recognized that stakeholder support contributed to setting priorities to go to the top of the list. Further, he noted the difference between long and short term priorities: “Some things are innovative and some things are of need...what is your

greatest need and what will be the best in the long term? Decisions should be made based on both long and short term priorities.”

Question 2: What factors do superintendents consider to make full day prekindergarten funding decisions?

The data revealed multiple factors that superintendents consider to make full day prekindergarten funding decisions. While some factors revealed during data analysis were unique to some superintendents and not others, specific factors that were the same for all three superintendents could be classified in three major themes: accessibility to high-quality early education, benefit to community, and sources of funding.

Accessibility to High Quality Early Education

Accessibility to high-quality prekindergarten was a primary factor considered when making decisions to fund full day prekindergarten. Making learning environments accessible as early as possible to low-income families emphasized the importance of serving all students. Superintendent A focused on figuring out how to help all kids learn. He clarified this idea by stating: “The mindset to figure out how we help all our kids learn means that you think about all kids. When we have students not achieving, my orientation is what are we going to do for our student groups...with our students who don’t have the economic advantages of other families... who is achieving and who is not...that’s what influences my decisions to offer prekindergarten programs for our students.” To make high-quality prekindergarten available to all students, the superintendent noted, “We do have a full day prekindergarten program for four year olds and a half day program for three year olds. We have this throughout the district at our campuses that have the highest number of economically disadvantaged students.”

Superintendent B explained why access to high quality programs should be considered when planning prekindergarten classrooms in his district: “We had a 2013 bond where there was a great investment in prekindergarten classrooms. However, we were operating in silos so the facilities people had ideas about where the prekindergarten classrooms should go and other departments had other ideas. The result of this was that the district built preschool classrooms where they fit and not necessarily where they were needed.” He further described a special committee that was created to ensure that the district was building facilities based on need: “The most important subcommittee that we have in our district is our Facilities Master Plan Committee...because this committee needs to be informed on what programs we want to build. From the early childhood people, where is the need? From the arts people, what types of building should be built to meet your needs?” This superintendent was very candid in explaining why access had been a problem in his district: “We had a lack of long term vision in terms of the importance of preschool and the need. There are campuses on the same side of town separated by a large, major thoroughfare where one community has eighty or ninety percent of their kids going to prekindergarten and another community only having forty percent participating. This is a function of not thinking this through.”

Superintendent C was clear that he knew that at-risk factors associated with poverty, such as less exposure to literacy, cause some children to be at an advantage over others. Specifically related to how he thought of access to prekindergarten as a factor when making decisions to continue to fund full day programs each year, he remarked: “Prekindergarten gives children an equalized chance. Now the kids who have never seen a book or never picked up a book are starting to learn instructional and academic concepts when they are very young and it helps change the cycle of poverty.” From his account, exposing children to literacy and reading at an early age fostered an appreciation

of books. He expressed “many of our students in poverty don’t have the experience of books early on like families with agency...I’ve coined the phrase we have to get kids school ready in order to get kids college ready.”

Access to prekindergarten programs was an important factor that was considered by the superintendents in this study which prompted them to be intentional of the location and quality of each program. Providing access to children through early programs was also of value to the larger community.

Benefit to Community

Consideration of the school community and how superintendents described their commitment and dedication to not only their school districts, but to the communities at large emerged as a factor considered by superintendents during their decision making process to fund full day prekindergarten programs. Superintendents understood how one of the functions of the school district was to make the community stronger and that the community was strengthened when school districts put kids first. This was achieved through community partnerships which promoted equity in student outcomes, college readiness and improved city economy.

To illustrate this point, Superintendent A said: “Prekindergarten is something the community wants...it helps create a strong community with well-educated individuals who want to be successful in a very diverse environment.” He emphasized that funding prekindergarten benefits the community by noting that “what we do today is the success of the city tomorrow...we will thrive on an educated group of students who will graduate from high school and go on to post-secondary studies. I fully believe to break the cycle of poverty; we have to break the barriers now. We all love our city today, but we want to love it even more tomorrow.” A connection to community constituencies was also

reported as a benefit: “I’m connected to think tanks of groups in this city...I sit on some of their boards...we can see what our expectations are as a district and we can see what their expectations are as community organizations.” This superintendent also realized that all children do not start off at the same point. He expressed: “full day prekindergarten is one of those high leverage points that will give kids opportunities that they may not have had...equity and benefit in student outcomes is a definite factor to consider.”

As another example that supported how funding prekindergarten benefits more than the immediate school district, Superintendent B stated: “We are all about building a better [names city] and to do something that will help more kids be college graduates will help the economy. We have an initiative around literacy that is chaired by myself, the mayor and the Chairman and CEO of [a strong community player].” Working from the “outside in” starting with external stakeholders and moving to internal stakeholders allowed this superintendent to build a strong connection with non-profits, faith leaders, and elected officials of the city. Similarly, he articulated his belief that we have to be here for the students first: “If it weren’t for the students, we wouldn’t need teachers, parents, and schools...serving kids is what drives me.” Further, he stated “having the moral authority to make decisions to fund prekindergarten was the best investment that could be made in public education and it the biggest benefit to the community.”

Superintendent C initially offered a different perspective and spoke of the constraints associated with getting the larger community to see the benefits of funding prekindergarten: “Since the return on investment doesn’t happen immediately, getting everyone on board can be complex.” He recounted resistance from some of the community members when he set early childhood education at the top of his priority list: “The daycare centers saw the district putting an emphasis on prekindergarten as an

invasion of their profit mode...if we were going to have three and four year olds in our schools, they would have less students at the daycare center.” He went on to tell how even with this reluctance of the daycare centers to see the advantages, he created a “win-win” by helping the daycare centers build capacity through sending a certified teacher to work at the centers which improved the quality of their programs. Additionally, a group called [name omitted] helped navigate this circumstance and eased some of these political issues. The response of Superintendent C concurred with the superintendents in the other districts as he humbly stated that he personally believed that funding prekindergarten was the “right thing to do.” He further continued to show his understanding of the long term return on investment of prekindergarten, but that he still believed that funding it [prekindergarten] was the right thing to do for the greater good and long term benefit for the students.

It seemed that the superintendents agreed that prekindergarten was a strong educational initiative that would prove to help strengthen student achievement in later years as well as strengthen the community at large. Paying for it, however, appeared to be a constraint.

Sources of Funding

Searching for resources to financially support prekindergarten emerged as a factor. Additional sources of funding such as district budgets, bonds and grants are examples of necessary considerations that had to be made in the midst of decreased aid from the state for education as a whole, not just for prekindergarten. This, coupled with the requirement for districts with wealthy property taxes to send money back to the state as a way to recapture funds for districts with poorer property taxes, made funding sources a definite element to consider. In his words, Superintendent A noted: “It is becoming

much more challenging to pay for it [prekindergarten]...for us, we pay around 8 or 9 million dollars out of our general fund to pay for full day prekindergarten...yes, we want to fund this, but the new question is how we will pay for it because it has gotten much more challenging.” According to him, “the funding grant from the state that came out a few years ago had so many constraints that came with it that it wasn’t worth it.” Add this to his account of how much money that had to be sent back to the state as a part of recapture and it became clear that his district sent more money back than it took to run the entire district that year. He noted this as a challenge for the tax payers of the district. In an effort to consider funding sources, he stated the following: “How do I deal with this? I have folks visit classrooms, having folks talk to teachers who understand early childhood education and have folks read about it...this way one can become more informed of what we are trying to do and the need for funding prekindergarten.”

Superintendent B told of his district’s community passing a half billion-dollar bond in 2013 with a great deal of the money being allocated to creating prekindergarten classrooms. He noted, however, a constraint: “the district operated in silos when I first became the superintendent and the funding sources mirrored this separateness...money wasn’t being spent efficiently based on the need for prekindergarten, but instead funding sources were being considered based on different departmental needs.” A strategy he used to address this was to institute a long-term vision for prekindergarten so that programs could be strategically planned and funded.

According to Superintendent C, when his district did not receive any new money from the state, he had to divvy up the current money which caused there to be winners and losers: “The winners are going to be happy and the losers are going to be mad...in a political context, that creates a lot of dissonance and disagreement.” Additionally, this superintendent stated that internal funding constraints caused concern: “We had people

who were asking why prekindergarten was getting all of the money...wondering why other departments did not have as many specialists and coaches...wondering why prekindergarten got all of the support.” He explained that his internal stakeholders were not against early childhood, but questioned why it should be a top funding priority over other district initiatives. A strategy that this superintendent used for funding purposes was to be vocal and to get people to support him: “I needed to explain the why... in all of my speeches that I have in my stakeholder meetings such as “conversations with the superintendent”, “community conversations” and “dialogue with the superintendent”, I always talked about how by getting kids school ready leads to having them be more college ready. Funding prekindergarten is a way to achieve this.” Table 10 illustrates these factors.

Table 10: Factors Considered During Decision Making			
Factors	Superintendent A	Superintendent B	Superintendent C
Accessibility	Provided full day prekindergarten program for four year olds and half day program for three year olds	Created committee to ensure district was building facilities based on the need for prekindergarten	Exposed kids to early literacy by making prekindergarten accessible to families
Benefit to Community	Connected to community constituencies through partnerships	Worked through initiatives involving city personnel	Supported daycare centers by sending a certified teacher to work at their programs
Sources of Funding	District budget and grants	Bond funds	District budget and bonds

Table 10 Source: Interview with Superintendent from District A, July 23, 2018; Superintendent from District B, August 1, 2018; Superintendent from District C, September 4, 2018.

Question 3: To what extent do superintendents' decision making practices regarding funding for full day prekindergarten rational decision making?

To determine how superintendents' decision making reflected a rational decision making process, a second level of data analysis was completed. The intent of this analysis was to explore whether or not superintendents' decision making related to the steps outlined in a rational model. For purposes of this study, extent was defined as the level to which some decisions were or were not believed to mirror or illustrate a rational process.

The rational decision making model, as advanced by Schoenfeld (2011) includes six sequential steps. They are 1) identifying the problem, 2) generating alternatives, 3) evaluating alternatives, 4) choosing an alternative, 5) implementing the decision and 6) evaluating the decision.

The researcher wished to deepen understanding of the role of the rational decision process as an underlying method for decision making. In order to explore the extent to which superintendents use the rational decision making process, responses from their interviews were coded according to their descriptions about how they made decisions. The findings are described below:

Step 1: Identify the Problem

Problem identification is the first step in the rational process as presented by Schoenfeld (2011). Decision makers identify not only the problem, but also orient themselves to the context of the situation. Superintendents in this study seemed to

express their desire for students, especially those who were at risk, to be successful and identified a lack of kindergarten readiness as an overall problem for how students perform throughout their school years. Superintendent A described the problem in terms of student outcomes not being proficient enough to promote a well-educated, strong community. He remarked: “In order to build a better city, students need to have better outcomes so they can become employed and contribute to the community.”

Superintendent B identified the problem as one related to below grade level reading. According to him, “Students need a strong foundation in the early years before entering kindergarten so that they can read on-grade level by the time they reach third grade...some of our third graders are reading two grade levels below their expected level.”

Superintendent C seemed to observe the problem as one of equity in terms of resource allocation. From his viewpoint, low-income children do not have the same advantages as children from middle or high-income households: “Students do not have an equalized chance and are not fully prepared to graduate high school...prekindergarten allows low-income students the opportunity to start at a readiness level closer to their non-at-risk peers.”

Step 2: Generate Alternatives

Generating alternatives to address the problem allows decision makers to have choices. To combat the problem of student academic outcomes not being proficient enough to promote a well-educated community, Superintendent A considered creating

more opportunities for children to attend prekindergarten among other things. He described the alternative of partnering with outside daycare organizations in the city who run half-day programs to pair with the half-day programs within the school district the state already funds, thus creating additional full-day opportunities for students of low-income families. He explained: “The thinking is we will create additional opportunities for kids in this city to attend prekindergarten...since we will provide the certified teacher for these partnership programs, we will be able to have more students arrive to kindergarten ready while building stronger ties with the community.” Superintendent A also considered using grant funds to help pay the cost of implementing full day prekindergarten programs in his district as well as focusing on the quality of existing prekindergarten programs. He reported: “Prekindergarten is expensive...using grant funds from the state would help subsidize the cost and allow us to better implement full day prekindergarten...the students lack readiness...they will have more skills when they enter kindergarten by attending prekindergarten.”

To provide alternatives to address the problem of students reading below grade level, Superintendent B considered partnering with businesses, faith leaders, and non-profits in a collective impact model to create reading mentors for the students. He remarked: “If we get people motivated to read to our kids, they will form relationships of trust which should help them academically...adults could come into our schools are read to and with our students to help them improve their reading abilities.” Superintendent B also considered using bond funds to finance full day prekindergarten as well as a consideration to narrow the focus of the district into three major priorities. He said: “As I

stated before, narrowing what we are focusing on allows us to get great at a few things instead of just good at a lot of things...one of the main foci for the district is early literacy and that means being strategic about getting kids exposed to literacy in prekindergarten.”

Superintendent C seemed to consider the alternative of expanding prekindergarten programs and resources across the district to address the problem of resource equity. He described how the district had grown in its interest of prekindergarten over the last few years: “When I came back to this district, I noticed that prekindergarten had become a priority because people representing different parts of the city wanted it...we had lots of people interested in it...but no one really wanted to pay for it.” Superintendent C also seemed to consider using a larger share of the general fund money already allocated to the district to fund prekindergarten as a top initiative. He remarked: “It costs millions of dollars to pay for full day prekindergarten. If you say something is your priority, you have to put your money there...you may have to take from other places to pay for it.”

Step 3: Evaluate Alternatives

To evaluate the alternatives generated by each district, superintendents seemed to reference the vision and mission of their perspective districts and weigh the alternatives against how well they aligned with the stated priorities of the district. Similarly, superintendents appeared to evaluate how reasonable each alternative was in fully achieving the goal. Superintendent A remarked: “We have a five-year strategic plan that we use to make sure that the decisions we make are aligned with what we say is important to us...we use this plan to keep our decisions tight.” In attempting to choose

the best alternative, Superintendent A seemed to consider which solution would best address the problem of students not producing outcomes proficient enough to create a well-educated community. He stated: “I look at our core beliefs and the programs we have in place to support them...I look to see what has been most successful...the classroom is the instructional core and initiatives that impact the core positively are considered the top levers...I make my decisions based on what makes it to the top of the list of what impacts the classrooms in a positive way the most.”

Superintendent B described the manner in which he evaluates alternatives in the decision making process. He reported that he refers back to his core values and ranks his decision choices based on how they align with these values. To address the problem of students not reading on-grade level, he spoke of needing to determine which alternative would get him closer to realizing his goal of students reading on grade level by the third grade. He stated: “We have to make sure we are providing as much opportunity as possible to push our students to achieving their highest level and that requires a strategic focus on early literacy through prekindergarten.”

Superintendent C seemed to refer back to the student outcome goals his district employs in order to evaluate alternatives to problems. According to him, consideration is given to how successful he thinks each alternative would be if implemented: “We have to think about the whole picture when we make decisions. Our district initiatives are our priorities, but we also have to determine if what we are wanting to implement will be supported and successful.”

Step 4: Choose an Alternative

After identifying the problem, generating alternatives, and evaluating each alternative, superintendents attempted to select the one that would best address the problem and achieve the goal. Superintendent A chose the alternative of partnering with an outside organization to create additional prekindergarten programs for low-income students as the solution to best address the need for student outcomes to be proficient enough to build a strong, well-educated community. Although the option of focusing on the quality of existing prekindergarten programs would have been impactful, he seemed to choose the alternative that would allow his district to serve as many students as possible.

Superintendent B chose the alternative of narrowing the focus of the district to three top initiatives, namely, early literacy, middle years math and career/college readiness. In his view, a strategic approach to raise on grade level reading was the most impactful and feasible option. According to him, community partnerships and mentoring would be beneficial, but a laser focus on early literacy would accelerate attainment of the goal of on-grade level reading by third grade.

Superintendent C chose the alternative of reallocating existing general funds to pay for prekindergarten to address the problem of program resource equity. He stated that since prekindergarten was one of the district's top three priorities that additional money would need to be spent for personnel, programming, resources and recruitment. According to him, equity is different from equality: "Equity means that you are going to put the resources where they are needed, not splitting up the resources equally among all

of the departments...we say prekindergarten is a priority so we have to put the money required to fully achieve our goal into it.”

Step 5: Implement the Decision

To implement decisions, each superintendent seemed to consider time, resources and persons responsible to carry out the decision. Superintendent A provided a certified teacher to serve the students in the newly created prekindergarten partnership programs. His district also created a timeline for piloting this partnership before expanding it to additional classrooms. He stated: “We got approved to run this program at one outside organization site...we will run this program using one of our teachers, see how it goes and then expand this partnership to other organizations over the next three years.”

Superintendent B pooled resources to funnel through the top three initiatives of the school district, one being early literacy. In doing this, a greater amount of personnel and financial resources were allocated to focusing on prekindergarten programs. This decision also seemed to allow for roles and responsibilities to be assigned to appropriate personnel to carry out the decision. “Our Executive Director of prekindergarten through second grade, Dr. [name omitted], as he explained, is responsible for ensuring that internal efforts align with our initiatives...[name omitted] from the [name of organization] organizes the prekindergarten efforts in the city that help us strengthen our prekindergarten programs.”

Superintendent C restructured personnel in the district and created an early learning department that focused on the needs of prekindergarten. Personnel working as

prekindergarten specialists were hired to assist prekindergarten teachers with program implementation. Developmentally appropriate classroom resources were purchased for prekindergarten and money for strong recruitment efforts were reserved from the general fund to implement this decision. Superintendent C stated: “I had sleepless nights making this decision...staff from other departments were jealous of early learning wondering why they were getting all of the support...I knew I had to put prekindergarten first in line for funding so we could reassign personnel to support prekindergarten.”

Step 6: Evaluate Decision Effectiveness

In order to evaluate the effectiveness of the decisions, superintendents seemed to use a variety of data points to determine if the decision was successful in achieving the goal. Superintendent A used an annual scorecard that evaluates how the programs of the district are helping the district achieve its student performance goals. He stated: “We use artifacts of our work to evaluate programs through the use of an annual scorecard...this scorecard is a result of survey data and student metric data to determine if our programs are being effective.”

Superintendent B used third grade reading levels and end of year reading state assessment scores to determine if the decision to narrow the focus of the school district on three top initiatives was being impactful in assisting children to read on grade level by the third grade. According to him: “Third grade reading percentage correlates with post-secondary attainment...we increased from 29 percent to 35 percent in the last two

years...we use these third grade metrics to determine if our early literacy efforts are working.”

Superintendent C used kindergarten readiness assessments to determine if the decision to allocate additional money and resources into prekindergarten were helping students develop the necessary skills in order to be ready for kindergarten. As he explained, “The time it takes to capitalize on our prekindergarten investment is long so we use kindergarten readiness assessments to give instant feedback on whether our investment is working or not...what we are seeing is that it is paying off and that we are getting the results.”

Apparently, superintendents in this study follow a rational decision model to some extent. However, according to the data, they also rely on their own intuition when making decisions. For instance, Superintendent A considered focusing on the quality of the existing prekindergarten programs in his district, but knew that partnering with outside organizations would have a bigger impact on building the well-educated community he envisioned. He stated: “I believe that when stakeholders see our partnering efforts that we will earn their trust and additional resources to help us achieve our goals.”

Superintendent B seemed to use his experience in his role as superintendent in his current and previous district to know that strategic thinking accelerates goal accomplishment. He remarked: “My experience has taught me that we have to focus on a few things and do them well...otherwise we will be spread too thin and won’t accomplish anything.”

Although Superintendent C knew that expanding prekindergarten programs across the district would give more children access to prekindergarten, he used his judgement to instead put additional resources into existing prekindergarten programs in an effort to strengthen the department to have the resources needed to accomplish the goal.

According to him, “I’ve been a superintendent for a long time now...and I know that it takes money to get things off the ground.”

Table 11 that follows provides a comparative analysis of the six steps of rational decision making and superintendent decision making.

Table 11: Six Steps of Rational Decision Making Compared to Superintendent Decision Making						
Rational Decision Making Steps	Identifies Problem	Generates Alternatives	Evaluates Alternatives	Chooses Alternative	Implements Decision	Evaluates Decision
Superintendent A	Academic outcomes do not promote a well-educated community	1. Partner with outside org. 2. Grant funds 3. Quality of Programs	Compared to 5 year strategic plan	Partnered with outside organization to create additional full day programs	Provided certified PK teacher for partnership program; created timeline	Employed scorecards
Superintendent B	Reading is below grade level in third grade	1. Partner with faith and business leaders 2. Bond funds 3. Narrow focus	Considered core values and district vision	Narrowed district’s focus to top three priorities; one as early literacy	Assigned roles to personnel focused on literacy; pooled resources	Analyzed third grade reading data
Superintendent C	Non-equitable resource disbursement for PK	1. Expansion of PK programs 2. Reallocation of general funds	Checked alignment between alternative and goals	Reallocated general funds to strengthen PK depart. and resources	Reassigned personnel to create an early learning depart. with specialists	Used kinder readiness instrument

Table 11 Source: Interview with Superintendent from District A, July 23, 2018; Superintendent from District B, August 1, 2018; Superintendent from District C, September 4, 2018

CHAPTER FIVE: CONCLUSIONS AND FURTHER RESEARCH IMPLICATIONS

Introduction

Reportedly, attending a high-quality prekindergarten program during the two years prior to entering kindergarten can potentially prevent learning gaps from developing (Bassok & Latham, 2017). Research has also revealed that funding programs for young children have had a significant, sustained impact on children born into poverty (Stevens & English, 2016). Research regarding how superintendents make decisions at the district level for funding prekindergarten programs for low income families, however, is limited. Therefore, this study examined the decision making of superintendents regarding funding full day prekindergarten programs for low-income families as well as factors that might have influenced their decision making.

This chapter includes a re-statement of the problem, purpose of the study, research questions, methodology, and a discussion of the findings. It concludes with implications for further research practice related to decision making.

Statement of the Problem

While some researchers describe the benefits of investing in prekindergarten programs for children (Stevens & English, 2016), few have reported the decision making models used by superintendents (Oliveria, 2007). Further examination of how decisions are made by superintendents and the factors that influence their decisions is needed.

Purpose of the Study

The purpose of this study was to examine the decision making of superintendents regarding funding full day prekindergarten programs in schools that serve low-income families as well as factors that may influence their decisions. An effort was also made to determine to what extent superintendents' decision making practices reflect the rational decision process.

Research Questions

This study was guided by the following research questions:

1. How do superintendents characterize their decision making processes for funding full day prekindergarten programs serving low-income families?
2. What factors do superintendents consider to make full day prekindergarten funding decisions?
3. How do superintendents' decision making practices regarding full day funding for prekindergarten reflect rational decision making?

Methodology

A qualitative case study method was used to collect and report data for this study. The research was conducted in three selected Texas urban school districts with enrollments of at least 25,000 students. The research took place during July 2018 and September 2018. After identifying the participants for this study, individual interviews were conducted as the primary data gathering tool. A total of three interviews of three superintendents were conducted for this study. All interviews were audio recorded and transcribed. Documents and observations were also completed as a part of this process. The resulting data was then analyzed.

The researcher used three coding methods to analyze the data. First, open coding was used to develop categories of information (Patton, 2002). Axial coding was then used to synthesize themes that emerged (Corbin & Strauss, 2008). Finally, the researcher used selective coding to establish central categories of the themes derived from the coding process (Corbin & Strauss, 2008).

Summary of Findings

The findings of this study focused on examining three areas: 1) determining how superintendents characterized their decision making practices for funding full day prekindergarten for low-income families, 2) identifying the factors that superintendents used to make decisions, and 3) determining the extent superintendents' decision making practices reflect rational decision making.

Superintendents' Decision Making Characterizations

A total of three characteristics of superintendent decision making emerged from the study. These are discussed including a connection to the existing literature. According to the results, superintendent decision making is characterized as collaborative, data-driven, and priority based.

Decision Making is Collaborative

Findings suggest that a collaborative decision making process is used to bring together internal and external stakeholders for the purpose of getting input to reach an outcome. Such a process may include various formats such as cabinet level meetings with high level district leaders, think tank configurations with central and campus level leaders, and community meetings with interested public. This finding is congruent with Brazer, Rich & Ross' (2010) assertion that collaborative decision making by

superintendents is inclusive of multiple stakeholders. Similarly, concurring with the characterization that decision making used be collaborative, Brazer, Rich & Ross (2010) report that superintendents tend to meet with small groups of constituents who have multiple perspectives as a way to bring goal-oriented members together to give input on an outcome.

Further, through collaborative decision making, superintendents are able to consider more than one perspective. This practice supports Brazer, Rich & Ross' (2010) finding that a superintendent intentionally created a team that consisted of one board member, the president of the location teachers' association, and representation of school principals.

Decision Making is Data-Driven

According to the findings, decision making practices can also be characterized as data-based. By employing various data sources, superintendents may use poverty statistics, brain development research, and student achievement data to make decisions. These findings are consistent with previous research. For instance, statistics from the 2016 U.S. Census Bureau report on poverty, one out of five children live in poverty in the United States and over 1.6 million children experience homelessness (Semega, Fontenot & Kollar, 2017). Such data allows superintendents to identify low-income level families and children they serve. By focusing on how poverty affects children's readiness when they arrive to kindergarten, superintendents are able to fund prekindergarten for children from disadvantaged families. This echoes Magnuson, Ruhm & Waldfogel's (2004) assertion that children from low-income families benefit the most from early childhood experiences due to lack of exposure to literacy and stimulating verbal interactions at home.

Another example of data driven decision making relates to brain development research. Early learning theories such as Piaget's Cognitive Development Theory and Vygotsky's Sociocultural Theory of Development reinforce the idea that progression occurs between birth and the age of entering school and therefore, superintendents funding early learning experiences for children during the year or two prior to being of school age becomes a priority because children from low-income families are prime candidates of benefitting from prekindergarten (Magnuson & Shager, 2010).

Student academic data is also important to make decisions for funding prekindergarten so that children are better ready for entering school and sustaining positive outcomes through graduation. By considering student data, superintendents can track students who attend prekindergarten and learn how well they perform beginning in third grade on state assessments. This supports the findings of research from an Early Childhood Longitudinal Study which reported that children who attend prekindergarten score higher on an early reading test (Magnuson & Shager, 2010).

Decision Making is Priority Based

According to the findings, superintendents' decision making processes are also characterized as being based on student priorities or a top initiative to fund prekindergarten programs. Decision making based on priorities is congruent with Curtis & City's (2009) assertion that effective superintendents use strategies to be explicit about their rank ordering goals for early childhood education. By prioritizing alternatives or programs, superintendents are able to determine few leading initiatives and focus on ways to accomplish them.

Factors and Considerations

According to the findings, specific factors are considered when making decisions for funding prekindergarten for children of low-income families. These factors appeared to be related to accessibility to high-quality education, benefit to community, and sources of funding.

Accessibility to High-Quality Prekindergarten

Findings suggest that accessibility to prekindergarten tends to provide students with high-quality programs. Ensuring all students have access to a high quality program requires consulting with facility master planning offices to determine the areas of the city with the highest need so that programs can be established. Since transportation is not typically provided for students to attend prekindergarten, considering location certainly factors into accessibility. Accessibility also refers to decisions on how to best use available resources to ensure that prekindergarten programs are accessible to families and children.

Benefit to Community

Findings suggest that consideration of potential benefits for the community is an important factor that contributes to decision making. Communities are made stronger when the school system places children first. Therefore, superintendents aim to increase graduation rates so that students may move on to post-secondary studies. High-quality prekindergarten programs also have a parent component that requires districts to engage with families as a part of the education process and keep families in the community involved. This is consistent with the notion that students who attend prekindergarten are more likely to graduate high school, experience better overall health, and who were less likely to be incarcerated (Garcia, Heckman, Leaf, et al., 2016).

In addition, superintendents' intention to provide high-quality prekindergarten programs help combat the reported academic gaps from expanding or worsening. This is congruent with Bassok & Latham's (2017) research that prekindergarten serves as an intervention that can potentially lessen the severity of academic gaps in student achievement.

Sources of Funding

It appears from the findings that because there is a decline in availability of funding from the state, there is a need to make proper provisions for high-quality programs. As a result, considering various sources of funding appears to affect decision making to sustain prekindergarten programs. This is in concert with Barnett & Carolan's (2013) assertion that states have seen a decline in expenditure per child over the past decade and therefore superintendents having to declare prekindergarten as a top funding priority—one that would get funded despite districts receiving less funding from the state.

Consideration of the amount of funding available as well as how much is needed to provide full day prekindergarten programs for children from low-income families seems to be essential. Targeted eligibility prekindergarten programs are funded by the state, however, only as half day programs. To address this, it appears that superintendents tend to subsidize costs using alternate sources of funding such as grant money and funds redirected from other district operations. This is congruent with Hustedt & Barnett's (2011) research that found that districts have to underwrite costs so that children can experienced full day prekindergarten learning experiences.

It also appears from the findings that as superintendents acknowledge the importance of providing full day prekindergarten programs for low income students they

search for ways to give them a chance comparable to their non-at-risk peers. Investing in prekindergarten seems to be essential to assist children to begin at the same starting point. This underscores Hustedt & Barnett's (2011) contention that public funds are better spent on families who cannot afford to pay private prekindergarten tuition and the return on investment will be great.

Rational Decision Making Practices

According to the findings, superintendents' decision making practices reflect a rational process to some extent. For instance, superintendents tend to follow a rational process through identifying the problem, generating alternatives to address the problem, evaluating the alternatives to determine their feasibility, choosing the alternative that best addressed the problem, implementing the decision and finally evaluating the decision effectiveness (Schoenfeld, 2011). Superintendents, however, also seem to rely on their intuition and judgement when making decisions. This supports Hart's (2018) finding in that superintendents integrate intuition with rationality when making decisions. Further, this is congruent with research that suggests that superintendents may rely on their own knowledge and feelings as well as the steps of rational decision making (Sadler-Smith & Shefy, 2004). Superintendents also seem to use the context of the situation to determine the best solution. This is aligned with research that found that superintendents may need to have situational awareness to make decisions within the context of the district (Noppe, 2013).

In summary, findings of the comparative analysis of the rational decision making framework and the decision making practices of superintendents suggest that the steps of a rational decision making process are completed to some extent.

Implications for Practice and Further Research

This study was undertaken to examine how superintendents characterized their decision making practices when making funding decisions for full day prekindergarten for low income families and factors that they considered when making these decisions. Attention was also given to how superintendents' decision making practices reflected a rational process. Only three superintendents participated in this study who had a minimum of two years in their role as superintendent and who served in a large school system in a southern central state. Data was primarily collected through interviews and observations. While the decision making practices identified in this study mirror some aspects of a rational process, superintendent's own intuition may limit the application of a true rational framework. However, given the nature and findings, recommendations for practice and further research can be generated.

Recommendations for Practice

Superintendents interested in making decisions to fund full day prekindergarten programs may need to:

- Set strategic goals for early childhood education that make prekindergarten a top priority.
- Engage in collaborative decision making to consider perspectives from various stakeholders

- Consider factors such as geographic need and benefit to the overall community when establishing prekindergarten programs.
- Engage in decision making that blends a rational and intuitive approach

Recommendations for Research

Given the scope of this study, there is a need for further research. For instance, others may:

- Expand the sample of participants to include principals' perceptions about factors that should be considered when funding full day prekindergarten.
- Conduct a study analyzing alternative decision making models superintendents follow when considering to fund full day prekindergarten
- Explore political constraints that impact decision making at the district level regarding funding full day prekindergarten for low-income families.

CONCLUSION

Prekindergarten has proven to assist four year olds to become school ready by the time they enter kindergarten. Research has highlighted benefits that can be seen later in life as a result of attending a high-quality prekindergarten program. Providing full day prekindergarten for children of low-income families is widely supported by school districts and communities, however, how to finance it remains a constraint. Decision making around funding full day prekindergarten remains at individual school district's discretion with top decision makers at the threshold. How the principal leader—the superintendent—creates strategic plans that include funding to subsidize the half day

programs afforded by the state is central to how likely full day prekindergarten programs will be instituted.

To increase the potential of garnering funding support from stakeholders, superintendents must engage various groups in the process of decision making. Hosting events for the purpose of hearing others' perspectives is critical for collaborative type decisions to be made. Decisions that are priority based and data driven have potential to ensure an effective decision making process.

Accessibility is an important factor to consider when establishing full day prekindergarten programs and must be considered. Given that one in five children lives in poverty emphasizes the need to provide the youngest of learners with a high quality early childhood experience as a way to give them a better chance to begin kindergarten as ready as their non-disadvantaged peers. Another element central to what must be factored into the decision making process is the obligation to the community. Superintendents must be committed to the surrounding community and understand how prekindergarten programs help build strong citizens.

Providing full day learning opportunities for prekindergarten aged children from low-income families will help reduce the risks associated with children living in poverty and will promote healthier adults able to contribute to society. Superintendent decision making to fund these types of high-quality programs may increase successful student academic outcomes.

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