KINDERGARTEN READINESS PROGRAMS ARE BENEFICIAL TO FULFILING
BENCHMARKS AND STANDARDS

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Abstract

In recent years kindergarten programs have struggled to meet the growing demands placed on them by local school districts. When early education is not mandated or funded, the programs lack necessary resources and are inconsistent. Likewise, there is a gap in the foundational knowledge that students bring to the kindergarten classroom; especially for students of poverty and ethnic diversity. Along with the obstacle of kindergarten teachers having different philosophical perspectives regarding the purpose of kindergarten, they also blame early education or preschool programs for some of their struggles. Therefore, local school districts need to fund and implement locally controlled kindergarten readiness programs to give school districts more control of their students’ academic destiny. Research studies have proven that when early education programs combine play and direct instruction components, results are sustainable for students throughout early elementary school. In light of budget cuts and financial burdens that all schools are facing, educational leaders must work together to devise, fund, and implement sound kindergarten readiness programs to better prepare students for the intense academic rigors of kindergarten and first grade.
Chapter I: Introduction

Statement of the Problem

Over the past 16 decades, education has evolved considerably, especially in regard to the expectations for kindergarten students (Kramer, Caldarrella, Christensen, & Shatzer, 2010). In years past, kindergarten was thought to be a time to develop a child’s social, emotional, and moral skills (Piaget, 1962). However, today, kindergarten marks the beginning of a student’s formal academic instruction (Russell, 2011). This change in curriculum resulted, in part, from shifts in educational philosophies as well as historical milestones including the Cold War, the Civil Rights Movement, and the enactment of No Child Left Behind (Elkind, 2001, McGrath, 1958, NCLB, 2000). Although these changes have been gradual over the past 150 years, few Americans are aware of the academic rigor now expected in kindergarten programs.

Kindergarten classrooms today spend far more time providing instruction on literacy and mathematics, than they do encouraging children to learn through play (Nicolopoulou, 2010). Additionally, many kindergarten programs use highly prescriptive curricula and assess students using standardized tests. As a result of this increased academic intensity, many children struggle to live up to these standards and are deemed as failing students (Nicolopoulou, 2010). As a result of these increased expectations for kindergarten students’ performance, preschool education and kindergarten readiness programs find themselves struggling for balance in their curricula while parents and school leaders decide which programs are most effective. With a variety of private or community based pre-school aged kindergarten readiness programs in existence; parents must decide where to send their child as well as how to afford such a program. The federal government provides funding for some pre-school aged kindergarten readiness programs such as Head Start, but these programs have specific qualification parameters and the research regarding the program’s effectiveness is
scattered. Some school districts provide a school aged kindergarten readiness program, while other districts struggle to convince their school boards these programs are worth the funding. Although there has been a plethora of research to discuss the effectiveness of the various kindergarten readiness programs, there is a gap in the research to support the idea that kindergarten readiness programs funded by local school districts are worth the financial investment and have more sustainable gains for certain students than the gains seen in private programs or even programs such as Head Start.

**Research Question(s)**

1. To what extent do school aged district funded kindergarten readiness programs provide sustainable gains for students in regard to their social and cognitive development?
2. To what extent are school aged district funded kindergarten readiness programs worth the financial investment for local school boards when compared to private pre-school aged and federally funded kindergarten readiness programs?

**Definition of Terms**

*Private pre-school aged programs:* refers to a kindergarten readiness program that is not reliant on local or federal tax dollars to operate. Their curricula may be based on any philosophy that the program adapts to, but their curriculum does not need to comply with any government imposed standards. Students attending these programs may be between the ages of three and the legal age to start school. The programs discussed in this thesis include; Montessori, Waldorf, HighScope, and Bank Streets Developmental Interaction Approach.
Chapter II: Review of Literature

This literature review will begin with the changes in kindergarten and early education programs over the years and progress to current expectations of kindergarten students. Next, the researcher will explain the key components of successful kindergarten and early education programs. It will then analyze the barriers that kindergarten programs currently face including: (a) lack of resources, (b) inconsistencies among early education programs, (c) lack of foundational knowledge in pre-school age children, and (d) different educational philosophies. Various kindergarten readiness programs will be researched including; (a) private, community, or church based pre-school aged programs, (b) federally funded pre-school aged programs, specifically Head Start, and (c) transitional or school aged district operated programs. The effectiveness of each type of programs mentioned above will also be analyzed in this review of the literature.

Kindergarten Education- Changes Over the Years

Over the past 16 decades, education has evolved considerably, especially in regard to the expectations for kindergarten students (Kramer, Caldarella, Christensen, & Shatzer, 2010). In years past, kindergarten was thought to be a time to develop a child’s social, emotional, and moral skills (Piaget, 1962). However, today, kindergarten marks the beginning of a student’s formal academic instruction (Russell, 2011). This change in curriculum resulted, in part, from shifts in educational philosophies. Kindergartens in the United States first evolved from Froebel’s model which focused on the spiritual and moral development of the child (Froebel, 1899). Froebel believed that children were inherently good and education should focus on music, nature study and stories. Froebel’s ideas permeated through the United States until the end of the 19th century. Some of the components of the Froebelain model included the use of manipulatives and circle sitting. Froebel believed that these concrete objects, or “gifts” as he
called them, would teach youngsters the “abstract concepts of unity and harmony” (Elkind, 2001). He suggested teachers use these manipulatives to teach abstract concepts to small children who are not able to think in that manner yet. The idea of circle sitting, or circle time, as it may be called in recent years, stems from Froebel’s natural romantic approach, which suggests that sitting in a circular configuration symbolizes infinity and communion with God (Elkind, 2001).

As times in America changed, so too did the role of kindergarten. John Dewey believed the Froebelian philosophy had value, but he found it to be too abstract and young children should be learning through play (Shapiro, 1983). Dewey’s philosophy of early learning controlled kindergarten ideals for the early part of the 20th century. Dewey's concept of education put a premium on meaningful activity in learning and participation in classroom democracy (Dewey, 1915). Unlike earlier models of teaching, which relied on strict leadership and rote learning, progressive education asserted that students must be invested in what they were learning. Dewey argued that curriculum should be relevant to students' lives. He encouraged learning by doing and the development of practical life skills, were crucial to children's education. Every school, as he wrote in *The School and Society* (1915), must become "an embryonic community life, active with types of occupations that reflect the life of the larger society and permeated throughout with the spirit of art, history and science. When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with instruments of effective self-direction, we shall have the deepest and best guarantee of a larger society which is worthy, lovely and harmonious" (Dewey, 1915, p. 604). This philosophy of education permeated throughout all schools in the early part of the 20th century; however, a cultural shift occurred in the mid 1900’s.
As the United States engaged in the Cold War with Russia to compete for the control of international affairs, schools were one industry forced to change (McGrath, 1958). Specifically, America rivaled with the Soviet Union over increases in technology and science. This Space Race demanded schools to improve their academic rigor in an effort to compete with the intellectually growing Soviet Union (Space Race, 2013). Ultimately, the federal government stepped in, demanded schools to be more accountable and forced all public schools to increase their curricula. In turn, this also required kindergarten programs to focus more on academics and less on social preparedness (McGrath, 1958).

Another historical time period that impacted early education was the Civil Rights Movement (1955-1968). In an effort to bring races closer to an educational equality, federally funded programs were created. One early education program designed to assist schools with this goal was Head Start. This government funded program was created in 1965 to increase the number of students attending preschool in an effort to make a child’s kindergarten year more academically rigorous (Schnur, Brooks-Gunn, Shipman, 1992). Over the last 50 years, since the Head Start program has been established, additional federal, local, and privately funded programs have begun to emerge (Lee & Loeb, 1995). Although each of these programs is slightly different in design, they all serve one purpose and that is to make students life-long learners and promote globally competitive students upon their 12th grade graduation (Lee & Loeb, 1995). These different early education programs will be thoroughly discussed later in this review of literature.

The most recent changes to early education came in the 1990s when some states opted for a full-day kindergarten program (Takanishi & Kauerz, 2008). The Southern states were some of the first to implement such a program. Over the past 20 years many states have followed suit, while others leave the decision up to the local school districts (Elkind, 2011). It
is important to note that not all areas of a state are affected the same way with these growing demands, especially the enactment of No Child Left Behind (NCLB, 2000). NCLB mandates that schools make adequate yearly progress in reading and mathematics on state tests in order to continue to receive federal funding. Scores on state tests for all children, including the impoverished, disabled and minority students, must gradually improve until 2014 when 100% of students in grades three through eight must read and perform in math and science at the proficient level (Powell, Higgins, Aram, & Freed, 2009). With the adoption of NCLB in 2000, schools are now accountable to show improvement in mathematics and reading for all students.

The review of the literature for this section focused on the historical and philosophical changes that have affected kindergarten and early education programs. Although the researcher did attempt to discuss the pivotal points spanning 150 years, the researcher did not exhaust all changes in education nor did she report on teachers’ perspectives regarding these changes. In an effort to answer the research questions, the author provided this background knowledge to allow the reader to better understand the history behind the dynamic changes in kindergarten programs over the years.

**Current Expectations of Kindergarten Programs**

Although these changes in philosophy have been gradual over the past 150 years, few Americans are aware of the academic rigor now expected in kindergarten programs. Kindergarten classrooms today spend far more time providing instruction on literacy and mathematics, than they do encouraging children to learn through play (Nicolopoulou, 2010). Additionally, many kindergarten programs use highly prescriptive curricula and assess students using standardized tests. As a result of this increased academic intensity, many children struggle to live up to these standards and are deemed as failing students (Nicolopoulou, 2010).
As a result of these increased expectations for kindergarten students’ performance, preschool education programs find themselves struggling for balance in their curricula.

An example of how these academic expectations have changed over the past 20 years can be recognized when comparing California state standards for kindergarten programs from 1989 to the standards for kindergarten students in 2013 (California Department of Education, 2013). In California in 1989 the state standards for kindergarten expected students to learn their colors, letters, letter sounds, count from 1 to 30, and identify numbers 1 through 10. However, now the curriculum expects kindergarteners to know 40 site words, all letters and their sounds and be able to decode (read) simple words, interpret charts and graphs, sort and classify, compare and order objects according to their attributes and count to 150 (California Department of Education, 2013). Teaching the six components of writing has been added as a kindergarten standard most recently. Now, kindergarten students are expected to identify the six components of writing and actually keep journals to apply these components. Most kindergarten classrooms spend 15 to 20 minutes of writing each day in addition to teaching units in science, social studies, and socialization.

Another aspect often ignored by data, yet held to the same NCLB standards, is the location of schools. Some research suggests that rural schools have been impacted the most with the changes in kindergarten programs. According to the United States Government Accountability Office (2004), one quarter of the nation’s school districts is rural, many in isolated locations with large populations of economically disadvantaged students. Nearly half of these districts only have two schools (Powell, et al., 2009). Many U.S. rural schools are plagued with declining enrollment and experience difficulty hiring and retaining highly qualified teachers. As a result, many rural schools face more challenges in meeting the provisions of NCLB than non-rural schools.
In a recent study conducted by Powell and colleagues, their goal was to ascertain to what extent rural schools have been impacted by NCLB demands. Data were gathered from 76 certified elementary school teachers in rural Maine and 101 rural elementary school principals in Missouri. Maine elementary teachers were interviewed during the spring 2007 semester. Participants formed a convenience sample representing 14 of 16 rural counties in the state. Fifty-six of the teacher-respondents were female and 26% of the teachers had taught 5 years or fewer. Therefore, these 26% could not compare teaching before and after the enactment of NCLB. Thirty-two percent of the teachers had a master’s degree; 68% had only a bachelor’s degree and 56 teachers representing 75% of the population received their teacher preparation from universities in Maine and 20 had degrees from other colleges and universities (Powell et al., 2009).

In an effort to make the study more reliable and valid, the researchers followed strict guidelines, especially as they related to the interview procedures. Teachers were interviewed by trained student interviewers to collect sufficient data for credible and dependable trends to emerge. Additionally, rural elementary principals in Missouri were surveyed regarding their curricular and instructional decisions prior and subsequent to the implementation of NCLB policies in their school. Twenty-four percent of Missouri’s rural elementary school districts participated in the survey. Surveys included demographic items, such as if their school was rural, urban, or suburban. A total of 165 surveys were returned, resulting in a 29% return rate. Of these surveys, 101 of the respondents indicated their school was a rural elementary school (Powell et al., 2009).

After all data were gathered, it was grouped according to grade levels; kindergarten to third grade (K-3) was one group and grades four through six (4-6) were another. A comparison of before and after NCLB at both grade levels showed significant changes in use of
instructional time for teaching reading. Specifically, in grades K-3 teachers spent an average of 80.67 (M=80.67) minutes per day prior to NCLB and an average of 90.83 (M=90.83) minutes after the enactment of NCLB resulting in a t(89)=3.63, p<.001. The effect size was d=0.38 which, according to Cohen (1988), is a small to medium effect size. Similar results were also found for grades four through six. Prior to NCLB, the average time spent teaching reading was 68.01 (M=68.01) minutes per day and post NCLB, the time had increased to an average of 77.56 (M=77.56) minutes resulting in a t(87)=3.73, p<.001. Once again the effect size was d=0.4, or small to medium (Powell et al., 2009).

Non-instructional times were also examined in but grouped in three different grade spans; kindergarten through second grade (K-2), grades three and four (3-4), and grades five and six (5-6). Specifically, the researchers looked at nap times in kindergarten and the amount of time allotted for recess times in all grade spans. Prior to NCLB, kindergarteners were allotted an average of 29.33 (M=29.33) minutes to nap daily compared to post NCLB, where the time was reduced to 26.73 (M=26.73), t(74)= 2.82, p<.01 with a small to medium effect size of d=.04. The decreased time for recess post NCLB was significant at all three levels grade level bands. Kindergarten through second grade cut recess from 37.04 (M=37.04) minutes a day to 32.26 (M=32.26) minutes post NCLB, t(92) =4.90, p < .001 with a medium effect size of d=0.51. For grades 3-4, recess was cut from 32.47 minutes (M=32.47) to 28.31 (M=28.31) minutes after NCLB, t(88)=4.22, p < .001 with an effect size of d=0.45. The cuts in recess were also significant for grades 5-6, with 27.63 minutes (M=27.63) prior to NCLB, cut to 24.94 minutes (M=24.94) after NCLB, t(77)=2.44, p < .05; and a small to medium effect size d=0.28 (Powell et al., 2009, p. 23).

Although the results of the above study are specific to rural schools, the data garnered reflects the academic changes that schools must face in order to meet the demands of NCLB.
As one can see, these demands affect kindergarten programs and support the other research stating kindergarten students are spending more time in the classroom engaging in reading and mathematics, and less time playing and resting. These changes and how they affect the different philosophies of kindergarten programs will be discussed later in this review of the literature.

**Key Components of Early Education and Kindergarten Programs**

The National Association for the Education of Young Children (NAEYC, 2009) developed a list of developmentally appropriate principles for young children. These 12 principles were based on literature about how children develop and learn. They concluded that these principles should be the basis of all early education programs and they are inter-related and not to be thought of as separate entities. These principles include: (a) all the domains of development and learning—physical, social and emotional, and cognitive are closely interrelated; (b) many aspects of children’s learning and development follow well documented sequences; (c) development and learning proceed at varying rates from child to child; (d) development and learning result from a dynamic and continuous interaction of biological maturation and experience; (e) early experiences have profound effects on a child’s development and learning; (f) development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities; (g) children develop best when they have secure, consistent relationships with adults and peers; (h) development and learning occur in and are influenced by multiple social and cultural contexts; (i) children learn in a variety of ways; (j) play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence; (k) learning increases when children are challenged at a level just beyond their current mastery, and when they have many opportunities to practice newly acquired skills; (l) children’s experiences shape their disposition and
ultimately their motivation to learn. These twelve principles regarding child learning and development must be the basis for educational decisions in the classroom. The NAEYC suggests that school leaders keep the above principles in mind when designing instruction, specifically as they relate to the following five categories: (a) creating a caring community of learners, (b) teaching to enhance development and learning, (c) planning curriculum to achieve important goals, (d) assessing children’s development and learning, and (e) establishing reciprocal relationships with families (NAEYC, 2009).

The first area of practice, creating a community of learners, is important for early childhood centers to understand because they are often a child’s first community outside of the home. Therefore, children need to learn how to treat others as well as how they should expect to be treated. The role of the community is to provide a physical, emotional, and cognitive environment conducive to that development and learning. The foundation for the community is consistent, positive, caring relationships between the adults and children, among children, among teachers, and between teachers and families. It is the responsibility of all members of the learning community to consider and contribute to one another’s well-being and learning. In addition, as part of the kindergarten readiness program, children will gain experiences in different activities that will foster social development, good manners, and responsibility.

Another key principle, teaching to enhance development and learning, emphasizes that teachers are responsible for fostering the caring learning community through their vast repertoire of teaching strategies, and their knowledge of each individual student’s developmental level. In other words, teachers are responsible for guiding students to learn in a positive community based upon what the child is ready to learn and how the child learns best. According to decades of early childhood education research, children ages three through five learn best using a constructivist approach (Piaget, 1962; Vygotsky, 1963). This term refers to
how knowledge is constructed in human beings when information comes into contact with existing knowledge that had been developed by their prior experiences. In education, constructivists emphasize that the way knowledge is created affects a student’s ability to adapt to the world (Piaget, 1962).

Along with the idea that early education programs must understand child development to promote learning, they also must utilize curriculum planning to achieve important goals (NAEYC, 2009). Kindergarten readiness programs generally have a carefully planned curriculum that will help any child develop better concentration and a longer attention span while he or she is also learning basic concepts taught. Teachers should utilize a curriculum framework that aligns with state or local standards as well as one that promotes continuous learning. The idea of continuous learning directly connects to the fourth key principle, assessing children’s development and learning. Research indicates that teachers should instruct students at the next level beyond a student’s independent level (NAEYC, 2009). Vygotsky (1963) first coined this idea of learning as the Zone of Proximal Development. In order to implement this design of instruction, teachers must first assess their students’ levels, and then design instruction accordingly. This assessment process must be ongoing and used to design effective instruction.

The final key element in an early education program is to establish reciprocal relationships with families. This means that parents and caregivers are seen as an important part of the decision making process regarding the child’s learning goals. Two way communications, between home and school, are established and strengthened in order for parents to be a part of this process. Similarly, parents should be made to feel welcome at all times in the educational setting (NAEYC, 2009).
In conclusion, although these key principles were all from one source, Developmentally Appropriate Practice in Early Childhood Programs (NAEYC, 2009) it has been updated since the first edition which was published in 1987 making this source current and reputable. The organization, NAEYC, is fully accredited and the principles were reported after a great deal of literature was reviewed by their team of professionals. These principles also reflect the change in times as explained earlier in this review of literature. However, to succinctly conclude the book’s points, kindergarten readiness programs must provide opportunities for cognitive learning through high quality teaching in educationally conducive settings. To successfully tap into a child's diverse learning style and ability, the program's curriculum must encourage playful learning that involves music, movement, and touch. The programs are designed to allow the children to learn skills and acquire fundamental knowledge necessary for optimal development, not just in kindergarten but also in higher education. Generally, kindergarten readiness programs should help kids develop skills in using writing tools, recognition of letters, shapes, and colors, socialization, body awareness, cooperation, participation, and language development. Additionally, kindergarten readiness programs will also help reduce or eliminate the anxiety or apprehension that children normally experience as they get used to the idea of leaving their homes and preschools for a new environment. The program will help build their confidence and will create a smoother transition.

Barriers Kindergarten and Early Education Programs Currently Face

In years past, kindergarten was the forum where students were encouraged to create meaning in their worlds through play. However, with the increase in academic rigor, constructing knowledge through play is no longer a vital part of kindergarten. Instead, kindergarten teachers and educational leaders expect students to arrive to the kindergarten classroom with this much needed foundational knowledge which is required for students to
master the newly taught academic skills. The obstacles that kindergarten programs face which hinder their effective implementation of academic rigor include the: (a) lack of resources including; human, material, and financial; (b) inconsistency among early education programs; (c) lack of foundational knowledge of students aged birth through five; and (d) difference of educational philosophies.

Lack of resources

Undoubtedly kindergarten programs, along with all school levels around the country, face the problem of limited staff, materials, and funding. With budget cuts looming for school districts across the country many kindergarten programs are the first group to feel the impact. According to Oliff and Leachman (2011), elementary and high schools are receiving less state funding than last year in at least 37 states, and in at least 30 states, school funding is below 2008 levels – often far below. These cuts are partly because the federal government reduced spending on education in most states. Similarly, states and local school districts are unable to raise taxes and the needed funds to keep schools balancing their budgets. The cuts have significant consequences, both now and in the future. They are causing immediate public- and private-sector job loss, and in the long term are likely to reduce student achievement and economic growth. The $100 billion for education provided by the American Reinvestment and Recovery Act (ARRA), better known as the economic stimulus package, helped to offset some of the harshest effects, but these funds have been nearly depleted (Rentner, D. S., & Kober, N. (2012).

As a result of this financial crisis, education programs are feeling the hit; especially early education programs like kindergarten and pre-kindergarten. For some it seems like a logical place to reduce spending, but for the 40 states that do provide pre-kindergarten or preschool programs, and the 1.3 million children affected, the loss in funding could result in a
ripple effect in later educational years (Barnett, Epstein, Carolan, Fitzgerald, Ackerman, & Friedman, 2010). One example of funding cuts took place in Georgia where the pre-kindergarten school year was shortened from 180 to 160 days for 86,000 four-year-olds. Additionally, states like Arizona, Florida, Georgia, Illinois, Massachusetts, North Carolina, Texas and others, have cut funding from early education programs to help close their budget shortfalls. This year, Texas eliminated state grants for pre-kindergarten expansion programs that served approximately 100,000 mostly at-risk children, or more than 40 percent of the state’s pre-kindergarten students (Oliff & Leachman, 2011).

Another byproduct of these budget cuts includes increased class sizes for pre-kindergarten and kindergarten students. By increasing class size, schools can cut down on needed teachers and materials. However, according to Project STAR, a program designed to begin with kindergarten students and follow them for four years, the long term effects were detrimental (Hanushek, 1999). The project consisted of three treatment groups; (a) small classes (13-17 students), regular classes (22-25 students), and regular classes (22-25 students) with a teacher’s aide. Schools were solicited for participation, with the stipulation that any school participating must be large enough to have at least one class in each treatment group. The initial sample included 6,324 kindergarten students in 79 schools and 326 teachers. These were split between 1,900 in small classes and 4,424 in regular classes. After the first year, the two separate regular class treatments were effectively combined, because there were no perceived differences in student performance. However, according to Hanushek (1999), the results indicated that students in small classes performed significantly better than those in regular sized classes or even regular classes with aides, and that the achievement advantage of small classes remained constant through the third grade.
The study mentioned above, describing the results of Project Star, validate the support for small class sizes. Although that is not directly related to the research questions, it was significant to include because it shows a possible benefit of implementing district controlled kindergarten readiness programs in so much that local district leaders could control the class population size thereby increasing sustainability in improving cognitive gains. Additionally, because the sample size was considerably large, the results are more valid than smaller studies yielding similar or conflicting data.

**Inconsistencies among early education programs**

Yet another obstacle that prevents many kindergarten programs from achieving the academic results required by district leaders is the inconsistency among the early education programs in which the students attend. For many years, preschool education and elementary education remained separate. In fact, the education system has not thought of preschool as a full-fledged part of American public education. One of the main reasons for the separation as well as the differences among early education programs, is because preschool is neither universally funded by the public nor mandatory (Takanishi & Kauerz, 2008). Additionally, preschool programs exist within a patchwork quilt of sponsorship and delivery systems and vary widely among teacher credentials. Many programs came into being primarily to offer child care for parents who worked. However, in recent years, preschool’s educational purpose and potential have been increasingly recognized, yet there still seems to be no consistency among preschool programs, making it difficult for kindergarten programs to thrive equally around the nation.

The information reported out by Takanishi and Kauerez (2008), although lacking in specific research study data, does pertain to the research questions. Specifically, they suggest that because early education programs are not mandated, there is an inconsistency among the
expectations of each. Therefore, the researcher suggests that if districts control and implement their own school aged kindergarten readiness programs, they will have more focus on targeted goals that will promote sustainable improvements needed in the areas of social and cognitive development.

**Lack of foundational knowledge in pre-school age children**

Yet another barrier that hinders kindergarten programs is the idea that not all children enter the formal school years with the same foundational knowledge. Since not all students qualify for a federally funded program such as Head Start or can afford to attend a privately funded organization such as a community pre-school, there is often a gap in children’s foundational learning. This gap in learning is most evident for students considered to be; (a) low income, (b) of minority race, and (c) English Language Learners (Glazer, 1988). There is considerable evidence that suggests the kinds of experiences, resources, and support that most effectively prepare young children for formal education are most commonly available to middle-class children rather than their less advantaged peers (Nicolopoulou, 2010). Often there is also a mismatch between the “school” culture and children’s cultural backgrounds (Heath, 1983). One prime difference in children’s early learning experiences is in their exposure to language, which is fundamental in literacy development as well as in all areas of thinking and learning. On average, children who grow up in low-income families have dramatically less experience with language in their homes than do middle-class children (Hart & Risley, 1999). They hear far fewer words and are engaged in fewer extended conversations.

Additionally, children from families living in poverty or in households where parent education is low, typically enter school with lower levels of foundational skills, such as those in language, reading, and mathematics (Barbarin, Bryant, McCandies, Burchnal, Early, Clifford, & Pianta, 2006). Aber, Burnley, Featherman, Phillips, Raudenbush, and Rowan
(2006), conducted a study regarding the long and short term effects that race and socio-economic levels have on cognitive development specifically in mathematics. Although their study did not share the sample population size, or the location where the study took place, they opined that kindergarten students labeled economically disadvantaged had average cognitive scores that were 60% below those of their more affluent peers. When students’ mathematics scores were disaggregated by race, African Americans scored 21% lower than their white peers and Hispanic students scored 19% lower. Moreover, after looking at this data longitudinally, Aber et al. (2006) suggest that these achievement gaps tend to increase rather than diminish over time.

**Different educational philosophies**

Perhaps one of the greatest issues kindergarten programs face is the different perspectives that educational leaders, teachers, and parents often have on the purpose of kindergarten. Many researchers suggest that young students learn best through play, while others support the idea that the purpose of early education programs is to begin academic instruction (Nicolopoulou, 2010; Piaget, 1962; Vygotsky, 1963).

**Implementation of direct instruction**

Those who favor building academic rigor in the kindergarten and early education classroom also believe strongly is using direct instruction to do so. Direct Instruction (DI), first coined by Engelmann in 1964, refers is a method of teaching that seeks efficiency and effectiveness of instruction through program design, organization of instruction, and positive student-teacher interaction. DI is a scripted approach in which the teacher presents activities and the children responded to them. Classroom activities are presented in sequences of academic lessons, emphasizing positive reinforcements of correct responses. Teachers clearly define the academic goals in reading, arithmetic, and language (Engelmann, 1969).
The National Reading Panel (2009) recently concluded that pre-literacy and early literacy instruction is appropriate for kindergarten students and an important element of promoting higher achievement in later grades. Data from several hundred students in two different schools were analyzed. Achievement was measured using the Dynamic Indicators of Basic Skills (DIBELS). Results indicated that the students who received Direct Instruction programs in kindergarten had significantly higher achievement in early elementary school.

These results replicated those found in other studies, providing consistent evidence of the effectiveness of Direct Instruction in kindergarten classrooms to promote later academic achievement (Engelmann & Stockard, 2008). The results further indicated that those who received Direct Instruction in the areas of phonemic awareness, phonics, fluency, vocabulary, and text comprehension significantly outperformed the comparison group when they reached third grade in reading as well as mathematics and language (Engelmann & Stockard, 2008).

One of the earlier studies referred to above was a quasi-experimental study conducted by Waldron-Soler, Martella, Marchand-Martella, Warner, Miller, and Tso (2002) involving 36 children ages three through five, gains were significant when Direct Instruction was used to teach language development. Specifically in this study, there were 28 typical children and eight with developmental delays coming from three different preschools. In preschool A there were 12 typical children and four with developmental delays, in preschool B there were 16 typical children, and preschool C housed four children all with developmental delays. All students were given the Peabody Picture Vocabulary Test Third Edition (PPVT-3), the Expressive Vocabulary Test, and the Social Skills Rating System (SSRS): Preschool Teacher Questionnaire as a pretest and then again 15 weeks later after the experimental group received direct instruction with program called Language for Learning was implemented with fidelity. The results indicated that the students in the experimental outperformed those in the control on
all posttests. Also statistically significant was the impact that the direct instruction program had on language development for students who were classified as developmentally delayed. The research also indicated that although both delayed and typical students made gains on all tests, delayed students made proportionally greater gains on the PPVT-3 and the SSRS (Waldron-Soler, et al., 2002).

The traditional kindergarten classroom that most adults remember from childhood, with plenty of space and time for unstructured play and discovery, art and music, practicing social skills, and learning to enjoy learning, has largely disappeared. The latest research indicates that, on a typical day, children in all-day kindergarten programs spend two or three hours a day on literacy and math instruction compared to less than 30 minutes a day engaging in free play or “choice time” (Engelmann, 2007). This intense academic rigor is because kindergartners are now under great pressure to meet enormous expectations, including academic standards that until recently were reserved for first grade (Miller & Almon, 2009).

For those that support the idea of saturating kindergarten programs with direct instruction, play is seen as a low priority or a time-wasting distraction (Engelmann & Stockard, 2008) Additionally, studies have indicated that when kindergarten readiness programs focused on academic rigor instead of play, students’ anxiety was lessened when they entered first grade (NAEYC, 2009). One reason students taught in academic rigor programs had less apprehension than their peers was because they more confident entering the first grade classroom because they knew their letters, sounds, shapes, numbers, and even several sight words (NAEYC, 2009).

In an effort to better answer the research questions, the author reviewed these current, valid, and reliable studies in regard to the benefits of using direct instruction in a school district funded kindergarten readiness program. In order for the researcher to ascertain whether
programs such as these will promote sustainable growth in the areas of social and cognitive
development, the researcher reported on studies able to be generalized in different populations.
Although there is considerable evidence to support the implementation of direct instruction in a
kindergarten classroom, there are also data to suggest children learn best through play while in
kindergarten.

**Importance of a play-based curriculum**

Some research suggests that young children learn differently from older children or
adults, and their ways of making sense of the world rely heavily on play, exploration, and
imagination (Nicolopoulou, 2010). Young children’s play is not simply frivolous; it is an
intensely absorbing activity that serves as a powerful matrix for learning and development
(Bodrova & Leong, 1996). Research has confirmed the value of children’s social pretend play,
in particular, for promoting both cognitive development and the development of forms of
social competence including cooperation, self-regulation, and interpersonal understanding
(Bodrova & Leong, 1996; Bredekamp, 1987; Nicolopoulou, 2010; Stone, 1995). A certain
amount of child-directed free play is indeed necessary and developmentally valuable. Most
preschool and kindergarten children are in what Piaget described as the preoperational stage of
cognitive development (Piaget, 1962). Letters and numerals typically mean little to the three-
to six-year-olds in this stage. These children use concrete rather than abstract symbols to
represent objects and ideas (Bodrova & Leong, 1996). Through pretending, children develop
the ability mentally to represent the world (Bredekamp, 1987; Stone, 1995). A play-based
curriculum offers children opportunities throughout the day to develop the ability to think
abstractly by experiencing real objects using their senses (Bredekamp, 1987; Kostelnik,
Soderman, & Whiren, 1993). Blocks can represent an airplane or a train. High heels can
transform a preschooer into a mother or princess. Blocks and high heels are three
dimensional, tangible objects. Sufficient practice using concrete objects as symbols is a necessary prerequisite to later understand and comprehend print (Stone, 1995).

Additionally, various forms of play have a critical role in promoting these socio emotional skills during children’s early years. The foundations for social relationships are laid in the early years (Kostelnik, Stein, Whiren, & Soderman, 1993). This is the time when children discover the roles they may play, the rules for getting along in society, the consequences for not following rules, and how to make friends. The only way to learn these concepts is to engage actively with others. If preschool programs do not allow children enough time to accomplish fundamental social tasks, the stage is set for social problems later on. If adolescents are expected to know how to work and live with others, and solve problems peacefully, they should learn the process through play early in life.

Education programs may have barriers that prevent them from achieving the academic rigor expected of them by first grade. One of these barriers that affect kindergarten programs’ effectiveness is the different educational philosophies that exist among early education teachers and leaders. Some research supports the idea that youngsters need a great deal of direct instruction in the early years in order to be successful students later in life (Bodrova & Leong, 1996; Bredekamp, 1987; Nicolopoulou, 2010; Stone, 1995). Other research indicates that children learn best through play and they are too young to benefit from such academically intense practices (Biswas-Diener, 2011; Kleeck & Schuele, 2010; Nance, 2009). However, even when educational programs design a balanced approach to combine both elements, differing educational philosophies is not the only barriers these programs face.

In conclusion, kindergarten programs have struggled over the past decade to meet the growing demands placed on them by local school districts. When early education is not mandated or funded, the programs lack necessary resources and are inconsistent. Likewise,
there is a gap in the foundational knowledge that students bring to the kindergarten classroom; especially for students of poverty and ethnic diversity. Along with the obstacle of kindergarten teachers having different philosophical perspectives regarding the purpose of kindergarten, they also blame early education or preschool programs for some of their struggles. Therefore, the information reported in this section of the review of the literature helps to answer the research questions and supports the argument that locally controlled kindergarten readiness programs would give school districts more control of their students’ academic destiny.

**Kindergarten Readiness Programs**

Research indicates that students who attend any type of early education program have more success in school especially in the areas of social and cognitive development (Biswas-Diener, 2011; Bodrova & Leong, 1996; Bredekamp, 1987; Kleeck & Schuele, 2010; Nance, 2009; Nicolopoulou, 2010; Stone, 1995). To support those studies, Duhley (2011) suggested that the increased availability of kindergarten programs decreases the probability that a child is below his/her grade for his/her age. More importantly, he opined that these differences increase when disaggregating the data for some demographic groups. Specifically, Hispanic males who attended any type of preschool were 17% less likely to be behind grade level than their non attending preschool peers. However, white and black male students had no measurable differences according to the study. In contrast, black and Hispanic female students had statistically significant effects in terms of decreasing their likelihood of being below grade for their age. His study also indicated that non-English-speaking children benefited, especially those whose parents were immigrants. Additionally, the study indicated that the poorest children were less likely to be below grade level for their age after attending a preschool program, while there were no significant effects for middle-class or upper-middle class children.
Studies such as this reveal to parents and education leaders that for many of our students, especially those of minority ethnicity, low socio-economic status, and English Language Learners (ELLs) preschool programs are beneficial. The debate exists as to which type of program is most beneficial for each student. Some factors to consider are the programs; (a) the educational philosophy behind each program, (b) entrance requirements, and (c) cost.

Although the different philosophies regarding the implementation of direct instruction or a play based curriculum described in the previous section are at opposite ends of the spectrum, much research supports a combination of play and direct instruction in early education programs (NAEYC, 2009). It is important to devise educational practices that can systematically integrate the play element into the preschool curriculum in ways that promote learning and development (NAEYC, 2009). Generally speaking, all kindergarten readiness should have a carefully planned curriculum that will help any child develop better concentration and a longer attention span while he or she is also learning basic concepts taught in kindergarten. These basic skills include: (a) using writing tools; (b) recognizing letters, shapes, and colors; (c) developing social skills including cooperation, participation, and body awareness; and (d) language development. In addition, as part of kindergarten readiness programs, children will gain experiences in different activities that will foster social, emotional, and cognitive development (NAEYC, 2009). Most kindergarten readiness programs provide opportunities for cognitive learning through high quality teaching in educationally conducive settings. The programs are designed to allow the children to learn skills and acquire fundamental knowledge necessary for optimal development, not just in kindergarten but also in higher education. Generally, kindergarten readiness programs should help students develop skills that will foster life-long learners.
In an effort to answer the research questions and better understand the various types of programs available, the following sub-sections will discuss the: (a) private pre-school aged kindergarten readiness programs available, (b) federally funded programs especially Head Start, and (c) district controlled school aged programs. Studies that report the effectiveness of each follows the explanation section.

**Private pre-school aged programs**

Prekindergarten or preschool aged programs differ from district controlled school aged kindergarten readiness programs in so much that children in these types of programs are not typically school age and therefore would not qualify for traditional kindergarten programs. These programs may be based in many different locations and be operated and funded by different organizations, such as child care centers or religious organizations. The cost of these programs range from nominal fees to extraordinary depending on the venue selected. These private programs are funded solely by the families of the students’ attending. Enrollment is generally limited to keep class sizes manageable for staff and teachers. The quality of each program also varies.

In an effort to answer the research questions completely, the researcher investigated other programs that have been successful in combining play and direct instruction including the; (a) Montessori Method, (b) Waldorf Method, (c) HighScope Approach, and (d) Bank Street Approach. It is important to note that this list is not exhaustive, but rather reports on the types of instruction and the foundational elements offered by some of the more common private type pre-school aged kindergarten readiness programs. The effectiveness of these types of programs will be reported later in this review of literature and will be more generalized to reflect private pre-school programs as whole, not individual programs’ effectiveness rates.
The Montessori approach was developed more than 100 years ago by Maria Montessori. The Montessori school philosophy is the idea of fostering engagement by offering children individual choice and harnessing intrinsic motivation (Biswas-Diener, 2011). “Work” is the term used by Montessori students and teachers to describe a wide range of educational activities that stem from playing. These activities can range from feeding and playing with classroom animals to manipulating shapes and color blocks. Using the term “work” to describe the children’s activities, lends a sense of dignity and importance to what they do, and sets up kids for a lifetime of believing that work can be fun, rewarding, and educational (Biswas-Diener, 2011).

According to the Association of Waldorf Schools of North America this approach to education founded by Rudolf Steiner, an Austrian scientist and philosopher in 1919, has been used in North America for nearly 80 years (Kleeck & Schuele, 2010). In the Waldorf preschool and kindergarten the teacher has two major goals. The first is to engage children in practical, domestic, and artistic activities such as; baking, gardening, handicrafts, and painting. The second is to nurture children’s power of imagination via storytelling and by encouraging fantasy play with toys that are “less finished”. For example, dolls have minimum details to foster more open-ended imaginative play. There is an emphasis on festivals and ceremonies that provide the backdrop for many activities encouraging diversity and acceptance among students (Kleeck & Schuele, 2010).

Yet another preschool program, The HighScope curriculum model, developed by Weikart and his associates in 1970, focuses on the importance of children as active learners and the need for adults to arrange their classrooms in discrete, well-equipped high interest areas (HighScope, 2010). Each day, children plan, carry out, and review their own activities that include small- and large-group activities as well as time spent outdoors. Teachers facilitate
intellectual, social, and physical key experiences which founders of the HighScope model believe are the domains of children's initiative including; social relations, creative representation, music and movement, language and literacy, and the logical and mathematical operations (HighScope, 2010).

The Bank Street’s Developmental Interaction Approach is based on the theories of Jean Piaget, Erik Erikson, John Dewey and Lucy Sprague Mitchell, among others. The Developmental Interaction Approach stresses that the optimal educational process maximizes children’s direct and rich interactions with a wide variety of materials, ideas, and people in their environment (Nance, 2009). The approach aims for actively involving children and acquiring competence through choice, active investigation, independent pursuit, and learning through discovery. This model operates on the idea that children’s social, cognitive, and emotional foundations are critically influenced by age seven. Therefore, it is the role of parents and educators to work together to mold children to become life-long learners seeking knowledge.

In summation, after looking at the above types of preschool programs, one thing they have in common is autonomy. Each one of these privately funded programs is able to employ the philosophy that they believe is most effective in fostering students’ developmental growth. Similarly, all of these privatized programs thrive off of parents paying tuition which limits the population of students that will be served to those who are able to afford such luxuries.

Effectiveness of private pre-school aged programs

One of the benefits of private pre-school aged kindergarten readiness programs are the autonomy they have specifically in regard to; (a) scope and sequence of curriculum, (b) instructional strategies utilized, (c) allocation of funds, and (d) enrollment capacity and diversity.
Current research regarding privately operated pre-kindergarten programs targeted for children one year before they are age eligible for kindergarten, prove the programs are successful. Specifically, studies indicated that higher-quality and non-public programs had more positive effects on language usage and cognitive development compared to other types of child care programs, even transitional programs (Christoffersen, 2009). Some studies have also demonstrated that pre-kindergarten programs may be particularly beneficial for non-white children and those from lower-income households (Christoffersen, 2009). However, because these studies only include students enrolled in private programs that require tuition, students falling into the lower-income bracket are often eliminated because they cannot afford to attend; thereby limiting the reliability and validity of these studies to generalize the results.

**School aged or district kindergarten readiness programs**

School aged kindergarten readiness programs sometimes called transitional kindergarten, junior kindergarten, or two-year kindergarten, are programs designed for children who are age-eligible to attend a traditional kindergarten program. These programs are typically organized, funded and operated by local school districts and school boards. Some districts have children attend this program because their parents and/or educational personnel feel they are not ready to begin formal kindergarten. Children in these programs are most often children with late spring or summer birthdays and may not be mature enough to attend formal kindergarten. Although taught by a licensed teacher, these programs may vary in length of day and scope of curriculum when compared to the regular kindergarten program within the same district. Children who attend these transitional kindergartens are expected to also complete a year of the regular kindergarten program before progressing to first grade.

In 1990 “redshirting” of kindergarten age children became a popular tool (Paul, 2010). “Redshirting” in sports has always been a popular option to allow players to grow physically
and mentally, and is now an option for families with young kindergarten children. In the past, parents with young kindergarten children had limited options; keep the child in preschool an additional year, keep them home, or watch them struggle in the traditional kindergarten classroom.

Unlike private preschool aged programs that provide a primary foundation for children ages three through five where parents pay a fee or tuition, a transitional program is operated and funded by the individual school district and has no cost to parents. Additionally, these private programs may or may not be aligned with district and state standards and therefore, may not be targeting the needs of the child (Lausch, 2012).

Currently, 39 states and the District of Columbia have designed, implemented, and funded their own pre-kindergarten programs on a large-scale. Though eligibility requirements differ across states, most state-funded pre-kindergarten programs give enrollment priority to children whose families have low income, or who are otherwise at risk for poor school achievement (Puma, Bell, Cook, Heid, Shapiro, Broene, & Spier, 2010). Along with the decision regarding requirements for enrollment, school districts also must decide what should be taught in these programs. Most districts align the curriculum so that the child will be well prepared for the academic rigor of traditional kindergarten. School teachers focus on appropriate school behaviors, letter and sound recognition, and number sense (Lausch, 2012).

*Effectiveness of school aged kindergarten readiness programs*

As a result of the academic demands placed on students in kindergarten, many parents and school district leaders encourage students to enroll in a transitional type kindergarten program. Many parents, especially those who are well educated and affluent whose child falls close to the state age cutoff, want another option beside traditional preschool programs, which often only operate for a few hours a day or a few days per week (Christoffersen, 2009). With
the development of transitional kindergarten programs; however, comes the question of their effectiveness. Debate exists about how to find and determine the most effective and appropriate program for young children. The literature on the effectiveness of school aged, district managed kindergarten programs is not as plentiful as is the evidence for programs like Head Start. Previous research on these school aged kindergarten readiness programs has indicated both positive and negative outcomes for young children, with more sizeable gains seen in the short term rather than long term range. Some studies are hampered by issues such as non-representative samples, selection bias, and inappropriate testing materials (Christoffersen, 2009).

A careful meta-analysis of state-funded, district operated preschool programs in 13 states found statistically significant positive impacts on some aspects of child development including; cognitive, language, and social in all of the states. Specifically, a study of Georgia’s universal pre-kindergarten program found that 82% of former pre-kindergarten students rated average or better on third-grade readiness tests in comparison to national norms (Gormley, Gayer, Phillips, & Dawson, 2005). The study also found that economically disadvantaged children attending Georgia’s pre-kindergarten program who began preschool scoring below national norms on a letter and word recognition test, began kindergarten scoring above national norms (Gormley, et. al., 2005). The researchers opined that these results were significant and sustainable because the state ensures a high quality program with highly qualified teachers. The program in Georgia is designed to assist all students to be more prepared for the academic rigor that lies ahead and results indicate this program is more successful than other private programs in the area (Gormley, et al., 2005).

Unlike the study conducted by Magnuson, Ruhm, & Waldfogel, (2007), most previous studies combine all types of early education programs into one category, even though the
effects may differ depending on program quality or emphasis. With this general approach, the study may hide variability in specific types of program effects because early education classrooms vary greatly in quality and approach to engaging children in academic learning activities (Pianta, LaParo, Payne, Cox, & Bradley, 2002). With the exception of Head Start, few studies consider whether specific types of preschool programs are more or less beneficial than others. Yet child–staff ratios, class sizes, and caregiver education and pay are important determinants of program quality (NICHD ECCRN, 2002; Phillips, Mekos, Scarr, McCartney, & Abott-Shim, 2001). The data on these indicators suggest that school-based prekindergarten is of relatively high quality (Ripple, Gilliam, Chanana, & Zigler, 1999; Smith, Kleiner, Parsad, Farris, & Green, 2003). Additionally, most states have developed prekindergarten curriculum standards, although few have adopted comprehensive standards and established mechanisms to assure that they are met (Barnett, Hustedt, Robin, & Schulman, 2004; Schulman, Blank, & Ewen, 1999). Nonetheless, state-funded prekindergartens’ increasing attention to developmentally appropriate curriculum suggests that these programs may be of higher educational quality than other preschools or child care centers. In Gilliam and Zigler’s (2004) review of 20 state evaluation efforts, most prior studies of prekindergarten are poorly designed therefore causing debate about the validity of their findings. One exception is Gormley, Gayer, Phillips, and Dawson’s (2004) evaluation of the Tulsa prekindergarten program, which took advantage of the strict age cut-off for entry to compare children attending prekindergarten with those who missed the age cut off. The results suggest that the prekindergarten program boosted children’s academic skills by 0.38–0.74 of a standard deviation, depending on the outcome. An additional study analyzed prekindergarten programs as distinct from other types of preschool or center-based care. Magnuson, Meyers, Ruhm, and Waldfogel (2004) used data from the Early Childhood Longitudinal Study–Kindergarten Class of 1998–1999 (ECLS-K), to
provide evidence that prekindergarten reaps greater academic benefits than other center-based programs, especially for disadvantaged children. The ECLS-K collects information on school performance and a rich array of family background, school, early education and child care experiences. One reason for these dramatic gains in well designed state run programs could be the fact that teachers are more highly qualified and earn more money than teachers at private prekindergarten programs. For example, in Tulsa’s prekindergarten program over 86% of the teachers have a Bachelor’s degree compared to only 40% of teachers in private programs (Blau, 2001; Smith et al., 2003).

Specifically, the Mageneson et al., (2004) longitudinal study mentioned above was further analyzed for sustainable gains by Magnuson, Ruhm, and Waldfogel (2007). The continued focus of the study was to compare various prekindergarten programs in terms of academic outcomes as well as social goals for sustainability, and the results support the idea that school district based prekindergarten programs are more successful than private programs. Their study consisted of over 10,000 youngsters from around the country of various ethnic and financial groups. The study explained all limitations and factored the data according to the limitations so as not to skew the results.

First, the researchers examined the types of child care programs that youngsters attended the year prior to kindergarten. The results were as follows; 45% attended a private preschool, 17% went to a prekindergarten program, 16% remained exclusively at home under parental care, 12% attended another type of non-parental care program, and 10% went to Head Start. Their results indicated that students who attended a prekindergarten program had reading and mathematics scores 3.17 and 2.36 points respectively higher than other children. Longitudinally, the researchers determined that students who attended a prekindergarten program were also less likely to be retained in kindergarten; two percent of prekindergarten
students were retained compared to five percent of Head Start students. The results of their study also indicated slightly better outcomes for disadvantaged children who attended prekindergarten programs than other programs. Specifically, by spring of the first grade, the effect sizes for the two disadvantaged groups were 0.20 and 0.23 for mathematics, and 0.09 and 0.21 for reading; these were considered small effect sizes for the general population. With the results of the study indicating favorable results for students who attended a prekindergarten program over other programs, the researchers opined, “The greatest return to public investments in early education may be obtained by using funds to increase disadvantaged children’s enrollment in preschool and prekindergarten” (Magnuson et al., 2007, p. 22).

**Federally funded pre-school aged programs**

As a result of the government’s attempt to save failing schools, some funds have been allocated for various types of students to attend a federally controlled or state operated pre-school program. Some of the federal programs that have been created include Head Start and Early Head Start. At the state level, these programs vary from state to state as do the eligibility requirements and scope of what is taught. Some of these programs have been successful and others less so. However, for the scope of this research paper and to better answer the research questions, the only federal program that will be evaluated is Head Start.

**Head Start**

One example of these pre-school aged based programs is Head Start. This federally funded program is an early childhood education, health, and parenting intervention created in 1965 as part of the War on Poverty (Stewart, 1992). It represents one of the federal government’s primary tools aimed at reducing disparities in children’s outcomes during the earliest years of life. Head Start has long been thought of as one of the more successful and popular elements of the War on Poverty, as evidenced in part by the fact that the program has
lasted nearly 50 years. Head Start currently serves approximately 900,000 youngsters aged three through five and accounts for over seven billion dollars of the federal budget annually (Gibbs, Ludwig, & Miller, 2012). To qualify for this program, 90% of the students must fall below 130% of the national poverty level and only 10% of the students enrolled can be middle or upper class.

**Effectiveness of federally funded programs: Head Start**

The effectiveness of Head Start has also been studied over the years. An early study, conducted by Seitz, Abelson, Levine, and Zigler (1975), compared disadvantaged children that were not enrolled in Head Start to children who attended Head Start by looking at their Peabody Picture Vocabulary Test (PPVT). All of the participants were African-American, considered economically disadvantaged, and lived in an inner-city community where their parents were considered unskilled and unemployed (Seitz, et. al., 1975). Those students in the Head Start study group consisted of nine boys and 11 girls, and they had all attended Head Start for at least five months at the time of testing. For the non-Head Start group, the children were on the waiting list to be enrolled into Head Start, and also consisted of 11 boys and nine girls. Both groups were similar in regard to family income, parental employment, and marital status. Both groups were given a pre-test using the PPVT assessment in both the child’s home as well as away from the child’s home.

The results indicated that Head Start children scored higher than their non-Head Start peers in both settings, possibly indicating that preschool intervention programs may have influenced the result. Another assumption made by the researchers was that the non-Head Start children who were tested in their homes scored the lowest between the groups, possibly because of anxiety factors of having an unfamiliar person in their homes. On the other hand, the results indicated that the students in the Head Start group seemed to have a longer attention
span and were less distracted during the testing. Although the results of the study were inconclusive regarding the impact that Head Start had on increasing students’ vocabulary skills, they did support the idea that the program encouraged social and emotional growth among children (Seitz et al., 1975).

In another study conducted nearly 20 years after the one described above, the effectiveness of Head Start programs was discussed, especially as they relate to different racial groups and the impact they have on student achievement later in life. This study conducted by Currie and Thomas (1995) concluded that white children educated in a Head Start program showed more advantages later in life than their African-American peers in similar Head Start programs. These gains included an increase in high school graduation rates as well as potential full-time employment upon graduation. Results were less sustainable for African-American students, although other environmental factors could have been significantly causal in preventing African-Americans from finding the same successes as their white peers including; parental involvement, two parent families, and parental education levels (Currie & Thomas, 1995).

In a more recent quantitative longitudinal study conducted in 2011 by the Department of Health and Human Services titled Head Start Impact, examined the cognitive development, social-emotional development, and physical health outcomes of Head Start students as compared to a control group who attended private preschool or stayed home with a caregiver. Specifically 60% of the control group attended other pre-school programs and 40% did not attend preschool at all. Head Start students were split into two distinct cohorts; three year-olds with two years of Head Start before kindergarten, and four year-olds with only one year of Head Start before kindergarten. The study found several results in regard to children’s; (a)
overall school experiences, (b) vocabulary and speech development, and (c) social-emotional
development.

The first report showed consistent small to moderate advantages for three year old
children including pre-reading, pre-vocabulary, and parent reports of children’s literacy skills.
No significant impacts were found for the constructs including, oral comprehension and
phonological awareness, or early mathematics skills for either age group. Fewer positive
benefits were found for four year-olds. The benefits improved with early participation and
varied among racial and ethnic groups. The specifics of the study and the sustainability of the
results are discussed below.

First, to analyze the results of the latter cohort, the group of four year-olds, it
determined that although the program had a positive impact on children’s experiences through
the preschool years, there was statistically little differences by the end of first grade and the
impact during their kindergarten year was scattered (Puma et. al., 2010). This group did show
significant improvement on vocabulary development when compared to the control group.
Additionally, the study revealed that after first grade, there were no significant social-
emotional impacts for this cohort and mixed results on measures of shyness, social withdrawal,
and problematic student-teacher interactions (Puma et. al., 2010).

The results of the study for the cohort of three year-olds with two years of Head Start
attendance were similar. Specifically, those students in the three year-old cohort tested better
in oral comprehension, compared to the control group. They also manifested less hyperactive
behaviors and more positive relationships with parents through first grade (Puma et. al., 2010).
The study concluded, "Head Start has benefits for both three year-olds and four year-olds in the
cognitive, health, and parenting domains, and for three year-olds in the social-emotional
domain. However, the benefits of access to Head Start at age four are largely absent by 1st
grade for the program population as a whole. For three year-olds, there are few sustained benefits, although access to the program may lead to improved parent-child relationships through 1st grade, a potentially important finding for children’s longer term development” (Puma et. al., 2010).

The Impact Study was significant to help this researcher answer her research questions. This study has been performed several times over the past 40 years to reassess the gains of the Head Start program. The study has a large sample size, is voluntary in design and tracks students’ progress over years making it longitudinal; a valuable feature of a study in order to determine sustainability. This study was also important because many researchers used the results of this study to conduct further research regarding the effectiveness of the Head Start program. The study discussed the limitations clearly as well as explained the methods and instruments that were used to extrapolate data.

In addition to analyzing the benefits and effectiveness of the Head Start program as were described above, the researcher also had to evaluate studies to report on the sustainable gains of the programs over time specifically as they relate to the students social and cognitive growth. While many of the studies previously discussed in this section indicated that the gains were sustainable, additional studies conflict with that data. This phenomenon, known as “Head Start Fade”, is evident as early as second and third grade (Lee & Loeb, 1995). One reason for this effect, researchers opine, is the fact that Head Start participants are significantly more likely than other children to attend lower-quality public schools, which can structurally undermine any advantage that Head Start would initially provide (Lee & Loeb, 1995).

Lee & Loeb (1995) conducted a qualitative and quantitative longitudinal study to determine what factors were most significant in causing the “fade out effect” as reported by prior studies. They hypothesized that this effect was directly related to the failing elementary
schools that Head Start students attend. The study consisted of 14,837 randomly selected eighth students, of which 2,111 attended Head Start, 6,240 attended another preschool program, and 6,486 had not attend a preschool program at all. The 1992 U.S. census was used to garner the following data about the participants who volunteered to be in the study; (a) education levels and (b) income levels. The researcher also used several data points to measure the effectiveness of the elementary and middle schools where the students attended eighth grade including; (a) unsafe schools, (b) average academic achievement, (c) academic climate, and (d) a composite or total score. The census data revealed that students who attended other preschool programs beside Head Start earned significantly more annually than Head Start parents or the parents of children who did not attend preschool; $53,153 compared to $22,461 and $33,018 respectively. The researchers also determined that only seven percent of the students attending other preschools were African-American, compared to the 41% of Head Start children. While analyzing their results, they determined that students who attended Head Start later went to schools that were reported to be nearly twice as unsafe as students who went to other preschool programs; 96% of participants reported their eighth grade school as unsafe compared to 46% of the participants who attended another preschool on the same topic. Similarly, when student data were used to determine average academic achievement, students who attended a Head Start preschool had the weakest score of the three groups when all factors were considered, but it was not an overwhelming difference; 47% rating for Head Starters compared to 52% and 49% for students who attended another program and no program respectively. The researcher also measured the academic climate of the schools where participants attended and once again, the schools were Head Starters attended had the lowest rating when compared to the other groups; 66% of Head Starters attended a school with a strong academic climate when compared to 82% of those who attended another program and
71% who did not attend at all. The above factors were combined and the researcher gave each group a composite score. Although the composite scores of Head Starters and those who attended no preschool were similar, 71% and 74% respectively, those who attended another program had a composite score of 85%. The researcher concluded that her hypothesis was correct regarding students who attend a Head Start program go on to attend underperforming schools and therefore experience the “fade out effect”. She opined, “Children who finish the program and are placed into disadvantaged schools perform worse than their peers by eighth grade; only by isolating such children and dispersing them to better-performing school districts, could gains be sustained” (Lee & Loeb, 1995 p. 72).

Although this study is a bit dated, the results and design of the study make it valid and reliable. The researcher took great care to account for many variables and used multiple data points to draw her conclusions. With respect to answering the research questions in this thesis, the study is valuable. The strong data supporting sustainable gains for students attending other preschool programs will be the basis to support this researcher’s hypothesis.

In a more recent study that also focused on the sustainable effects of Head Start as they pertain to white children compared to African-American children, Bitler, Domina, and Hoynes, (2012) conducted a study. They compared young adults aged 18 and older who had enrolled in Head Start as children with adult siblings who had enrolled in some other form of preschool. They concluded that Head Start participation significantly boosted educational attainment for whites but not blacks; yet it significantly decreases criminality for blacks but not whites. White youth who participated in Head Start were approximately 22 percentage points more likely to finish high school and 19 percentage points more likely to attend some college than their siblings who did not participate in Head Start. While black youth who participated in Head Start did not differ from their siblings on these measures of educational attainment, they
were approximately 12 percentage points less likely to be charged with a crime than their siblings who did not participate in the program. They found no significant impacts on adult earnings for either group (Bitler, et al., 2012).

This study, although recent, could be a weak argument to support this thesis paper. This study focused on the outcome of adult former Head Start students compared to non Head Starters and took into account their ethnic race. The study did not seem to account for parental support, parental income levels, upbringing, or types of school attended and therefore the data is a bit ambiguous to be conclusive to either support Head Start or not.

**Funding Kindergarten Readiness Programs**

Initially, all traditional, school aged kindergarten funding came from either private or local sources such as local philanthropic organizations, private tuition payments, or local tax dollars. However, in the 50 years between 1935 and 1986, every U.S. state eventually transitioned to a model in which kindergarten was subsidized using state revenue. Ohio was the first state to subsidize kindergarten in 1935, and Mississippi was the last state in 1986 (Duhley, 2010). This subsidization enabled states to provide kindergarten as a part of their public primary school educational system. In most states, this subsidization enabled public schools to count kindergarten students as a part of their enrollment for the purposes of calculating state aid. In other cases, the district or school was given additional state money in the form of a grant or appropriation for providing a kindergarten program; thereby saving local districts money and increasing the availability of the program. However, with kindergarten programs now considered “a guaranteed” feature in most districts, some states and districts are beginning to fund these school aged kindergarten readiness programs as described previously in this review of literature. In addition to these school aged transitional programs, some districts and states are also funding pre-kindergarten programs for non-school aged four year-olds.
State-funded preschool programs have grown dramatically in recent years. From 2002 to 2010, state-funded pre-kindergarten program enrollment nearly doubled, with a total of 40 states now serving almost 1.3 million children. During the same time period, the Head Start program enrollment has remained relatively constant, at just over 900,000 children. Specifically, approximately 27% of all 4-year-olds are now enrolled in state-funded pre-K programs, and an additional 11% are enrolled in Head Start (Hill, et al., 2012).
Chapter III Results and Analysis Relative to the Problem

As one can see, as a result of the demands placed on schools because of the No Child Left Behind Act of 2000, educational leaders are forced to increase the academic rigor at all grade levels, even kindergarten. Several studies have indicated that kindergarten students are spending more time in the classroom engaging in reading and mathematics, and less time playing and resting. Therefore, many kindergarten classes are now like a typical first grade classroom and sadly, many youngsters are not ready for this increased intensity.

In an effort to close this gap, many child care centers have begun to add a preschool component to their programs. Additionally, over 50 years ago, the federal government created Head Start, a preschool program designed to provide social and basic academic education to low income students. More recently, some states and local school districts have banded together to make funding possible for a locally controlled program and one that will be aligned to the academic standards the students need. With a multitude of different programs available, from private to federally funded, deciding which early education programs are worth their expense is not an easy decision. The results of each type of program are analyzed below, in an effort to answer the research questions.

Private Kindergarten Readiness Programs

One of the weaknesses reported about private kindergarten readiness programs is the lack of consistency that exists among them. This can cause a lack of alignment with state and federal standards and therefore make the students’ learning less substantial. The information reported out by Takanishi and Kauerez (2008), suggest that because early education programs are not mandated, there is an inconsistency among the expectations of each. Therefore, if districts control and implement their own school aged kindergarten readiness programs, they
will have more focus on targeted goals that will promote sustainable improvements needed in the areas of social and cognitive development.

Another study that was significant in suggesting that private preschool programs were not as effective as high quality district run programs was the longitudinal study by Magnuson et al., (2007). The results of their study indicated that students taught in a private preschool made, on average, 10% less gains in reading and mathematics, than those students who attended a district run preschool. The results of their study also indicated that students in private programs made less improvements regarding self-control when compared to those who attended a high quality district run prekindergarten program; nearly 10% less. Perhaps the reason for these differences does reflect what Blau (2001) reported that private preschool teachers are significantly less likely to have a college degree compared to those teaching in a district run program; over 50 times less likely. When programs are not run according to set of standards that align to the state curriculum, and the teachers are less qualified, it is no wonder that private programs would fall short compared to district run programs.

Another weakness that was determined through the research regarding private preschool programs is their availability. Private preschool programs require parents and caregivers to pay tuition for students. This often limits certain groups of students, most notably, those of low income. Research also indicated that those students who seem most likely to struggle in kindergarten are those from low income, English Language Learners, and racial minorities (Aber, et al., 2006). Therefore, private early education programs were not enough to address the needs of all students, hence why federally subsidized programs like Head Start were created.
Federal Kindergarten Readiness Programs

Although the development of the Head Start program has been thought of as a success by some studies, others consider the program a waste of tax payers’ money. The report from the Head Start Impact Study (2010) was most reliable to support my argument that local school district kindergarten readiness programs are worth the money. The Impact report concluded that Head Start did not allow for sustainable gains and the “fade out” effect was seen as early as first grade. Similarly, the report suggested that nearly all benefits seen by students were gone by year three because the schools these students later attend have been considered failing (Lee & Loeb, 1995). The study conducted by Lee and Loeb (1995) provides shocking data to suggest that Head Start programs have not been getting the job done in 20 years and the Impact Study later conferred the data. This again proves valuable to support my argument that local school districts need to invest in their own kindergarten readiness programs, while simultaneously working to make their schools better in grades kindergarten through twelfth.

School Aged or District Kindergarten Readiness Programs

School age or district controlled kindergarten readiness programs are worth the investment especially because they provide; (a) alignment to state standards, (b) highly qualified teachers, (c) enrollment parameters according to the needs of the local community, and (d) best practices of instruction including direct instruction.

The most influential study to answer my research questions came from Magnuson’s et al. (2007) longitudinal study that compared district run prekindergarten programs, with private preschools, and Head Start in respect to students’ social and cognitive gains. The results of the study indicated that students who attended prekindergarten programs made more cognitive gains than in mathematics and reading than students in any other program. The study also indicated that students in prekindergarten programs did not experience any negative behavior
issues as had been reported in previous research studies. The researchers also suggested that the gains were also sustainable through third grade, which is longer than any other gains reported in any other study including Head Start and private preschools. The researchers opined the gains were significant and sustainable because the prekindergarten programs where the students attended had: (a) more highly qualified teachers, (b) more state standard alignment, and (c) more research based direct instruction, than any other program evaluated. This concurs with other studies reported in the review of literature indicating what high quality early education programs need in order for them to stimulate sustainable gains.

Unlike private preschool aged programs where parents pay a fee or tuition, a transitional or district run program is operated and funded by the individual school district and has no cost to parents. Additionally, these private programs may or may not be aligned with district and state standards and therefore, may not be targeting the needs of the child (Lausch, 2012). With the enactment of NCLB (2000), by 2014 must have 100% of all students score 100% proficient in mathematics and reading. The tests are given for the first time in grade three. In order to meet this challenge, schools must align early education learning standards with those expected of students by third grade. Although NCLB is a national mandate, standards vary by state. Therefore, if school districts offer their own kindergarten readiness program, they can better decide the scope and sequence of the curriculum with the goal being mastery by third grade. Additionally, if local school districts operate and fund the program, they can decide who needs to attend and at what age; based on the needs of the community.

According to the information reported by Blau (2001) and later included in Magnuson et al. (2007) study, teachers working in a prekindergarten program funded and controlled by the local district or even a state wide program, were significantly more likely to hold a bachelor’s degree when compared to teachers in private programs; 86% compared to 44%.
This statistic also suggests that these degreed teachers are more abreast of best practices including the use of direct instruction. According to the Waldron-Soler et al. (2002) study that evaluated various early education programs for features that tended to promote gains in reading, they determined that implementing specifically designed, targeted instruction is more successful than other less structured approaches. The study also indicated in order for these direct instruction programs to be implemented with fidelity, highly qualified and trained teachers must be at the helm. Therefore, in order to make the most sustainable gains in reading and mathematics and better prepare our youngsters for the academic rigor of kindergarten, districts need to allocate the funds to implement and manage a well-designed prekindergarten program. The program needs to include; (a) highly qualified teachers, (b) alignment to state standards, (c) direct instruction, and (d) an enrollment policy that targets the communities’ most needy students.

Summary

In conclusion, kindergarten programs have struggled over the past decade to meet the growing demands placed on them by local school districts. When early education is not mandated or funded, the programs lack necessary resources and are inconsistent. Likewise, there is a gap in the foundational knowledge that students bring to the kindergarten classroom; especially for students of poverty and ethnic diversity. Along with the obstacle of kindergarten teachers having different philosophical perspectives regarding the purpose of kindergarten, they also blame early education or preschool programs for some of their struggles. Therefore, locally controlled kindergarten readiness programs give school districts more control of their students’ academic destiny.
Chapter IV: Conclusion

Recommendations

In an effort to better prepare youngsters for the academic rigor of kindergarten, school districts should fund, manage, and implement their own kindergarten readiness program. By doing so, they can better decide the scope and sequence of the curriculum to better align with state standards with the goal being mastery by third grade when state assessments are given, according to NCLB (2000). Additionally, if local school districts operate and fund the program, they can decide who needs to attend and at what age; based on the needs of the community. All state or district based programs should be certain to employ highly qualified teachers and design educational programs that include direct instruction in the areas of reading and mathematics. Additionally, they need to ensure enrollment is available to the most needy students, including those of low socio-economic status, English Language Learners (ELLs), and students of racial or ethnic minorities.

Areas for Further Research

To further answer my research questions, I would want to investigate specific state or district operated prekindergarten programs to better understand exactly which direct instruction practices seem most beneficial to provide sustainable improvement in students’ reading scores. Specifically, which programs are best for which students? In other words, do all students require the same direct instructional approaches? Or are some types of students more responsive to certain programs? Longitudinal research is most beneficial to evaluate the sustainability of certain programs. For this reason, I would like to continue to evaluate and compare state or local district run prekindergarten programs to other programs available and ascertain which seem to be the most effective. This research would be ongoing and require a lot of variables to be considered. These would include; (a) the demographics of the students,
(b) the quality and design features of the programs, and (c) the quality of the instruction delivered.

**Conclusion**

With the increased expectations that kindergarten students face, early education programs must better prepare our children. The research has indicated that private preschool programs and Head Start are not as successful as state or district run prekindergarten programs when it comes to making sustainable gains in students’ cognitive or social development. For this reason, district and state leaders need to provide the funds, resources, and leadership necessary to make these programs a success in all communities. These programs must include highly qualified teachers who are utilizing the most effective practices, including direct instruction. In order for students to be life-long learners and not fall behind, providing a sound early education is worth the investment.
References


