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Leading a readiness program for low-income students within a preschool setting

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LEADING A READINESS PROGRAM FOR LOW-INCOME STUDENTS WITHIN A PRESCHOOL SETTING

by
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Dedication

I dedicate this work to my family who has always believed in my abilities and aspirations-especially to my mother and father, they are truly the wind beneath my wings. I make a special dedication to my daughters, Hannah and Katlyn for giving up mommy time so I could fulfill my dream. Finally to my husband, who spent many nights as a single parent so I could work on my paper.

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Abstract

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WITHIN A PRESCHOOL SETTING
2010/11
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The solution to narrowing the achievement gap between low socioeconomic students and high socioeconomic students has included endless approaches and interventions, including full day pre-school programs (NAEP, 1999; Snow, Burns, & Griffith, 1998).This action research project focused specifically on the needs of low-income preschool students and concentrated on closing the achievement gap among the SES subgroups within the By-the-Sea School District preschool and kindergarten classrooms. Using Monahan's (2003) 9-Step Change Model as a framework for change, classroom teachers worked collaboratively with the researcher to make the necessary changes to their classrooms and school to better meet the needs of low-income students. This mixed methods action research also studied the organizational culture of the Davis school (where the interventions were primarily involved), the process of change, as well as the researcher's leadership as the project evolved. The success of interventions was evaluated using the PAST, Brigance, and teacher-constructed benchmark assessments. The study's findings suggest the interventions may have, at a minimum, influenced or contributed to gains among student groups. While the data do not suggest a significant

difference between participants and non-participants based solely on post test score performances, the growth data suggest that, while not significantly different, there are observable differences between participants and non-participants. Some data suggest that those who were in the differentiated instruction class achieved greater (although not significantly greater) growth in some areas than those who were in the technology classroom.

In terms of trying to close the achievement gap between low-income students and their more advantaged peers, the growth data suggests that the low-income project participants achieved a greater (although not significantly greater) degree of growth than both the low-income non-participants and the non-low-income non-participants.

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Chapter 1

Introduction

Brief History of Preschool Education in America

Preschool education in America, as it is currently formally recognized, had its origins in infant care, nurseries, and day care facilities as early as the 1800s. In 1856, Margarethe Shurz, a German immigrant, opened the first kindergarten in Watertown, Wisconsin, and Elizabeth Peabody followed her by opening a kindergarten in 1860 in Boston. The first city to make kindergarten a formal part of the public school system was St. Louis, Missouri in 1873 (Bloch, Seward, & Seidlinger, 2001).

During most of the 19th and early 20th centuries, public schools were used primarily to educate children of the poor in good moral conduct since, at the time, they were perceived to be weak in that area. Wealthier families sent their children to private schools or had them tutored at home (Bloch, 1987; Finkelstein, 1979; Jenkins, 1978; Kaestle & Vinovskis, 1980; May & Vinovskis, 1977). Philanthropists, who were the primary patrons at the time for preschools, pushed for public funding of programs for 4 to 6-year-olds to increase the number of children accessing preschools and kindergartens. Teachers also pushed for these programs in order to help students who lacked specific knowledge and skills, especially in language and culture, in order to help elevate them to the norms of the community (Bloch et al., 2001). These programs were, however, intended primarily for students 4 years of age and older; younger children were excluded.

During the Great Depression (1929-1933), many mothers were forced to go to work, so attitudes toward these programs began to change. Day nurseries, infant schools,

and crèches (as they were known in Europe) began to accept students of all ages. It became acceptable to send a child to a day care facility since the economic crisis caused mothers, the primary caregivers, to seek work and engage in employment (Rose, 1999). During this time, the Federal Government started the first nursery school program in the United States. This program, administered by the Federal Emergency Relief Administration (FERA) and later by the Works Projects Administration (WPA), included children ranging in age from 18 months to 5 years and provided opportunities for jobs for unemployed teachers as well as a choice for mothers who needed to work to survive.

Federal intervention in the field of early childhood education continued to expand throughout the first half of the 20th century. During World War II, child care again became a public issue because defense contractors felt it was a necessary and effective tool for recruiting women to enter the work force to support the war effort. Public opinion was split at the time, however, because some mothers did not like the idea of placing their children with strangers. "A 1943 Gallup Poll reported that 56 percent of mothers would not use government daycare centers even if they were provided free" (Berry, 1993, p. 108). Nevertheless, federal funding was provided for child care through an amendment to the Community Facilities Act, also known as the Lanham Act, in 1942. The Federal Government provided the Lanham Act centers with 50% of their funding. The planners of these programs launched a public relations campaign to try to change the image of the day nursery from a "dreary orphanage for neglected children" to a more patriotic view of "a war program, not a charity" program (Rose, 1999, p. 168).

During the late 1940s, as reported above, group child care was unpopular among some segments of the American population. Gradually, however, nursery schools began

to grow in acceptance due to the belief that they were educational in nature and benefited children (Cahan, 1989). By the late 1940s, there was increased enrollment in both nursery schools and kindergartens. According to Spodek (1980), in 1949-1950, more than one million children were in public kindergartens, and 183,000 were in private kindergartens. Then, in the 1950s, 4-year-olds began to be excluded from some public school programs due to their increasing numbers and the belief that available classroom space and teachers were more necessary for the traditional 5-year-old kindergarten programs (Bloch et al., 2001). In 1956, the U.S. Congress passed legislation (the Dependent Care Tax Credit Act of 1956), which provided for legal tax deductions for child care expenses. This funding increased opportunities for child care and preschool education.

During the post-WWII era, the role of the Federal Government in education continued to expand. In 1962, federal funding was approved for the indigent (welfare recipients) who were entering the work force and needed to leave their children in child care. In 1965, the Head Start program was created as part of then President Lyndon Johnson's War on Poverty. "Head Start's popularity helped legitimate the idea of educationally oriented day care for all children" (Rose, 1999, p. 214). President Johnson was a former teacher who had seen the impact of poverty on his students, and he believed that equal access to education was vital to a child's ability to lead a productive life.

The Elementary and Secondary Education Act (ESEA) of 1965 (P.L. 89-10) was designed to address the problem of inequality in education. This landmark piece of legislation changed the federal government's role in education and, with all of its historic congressional re-authorizations, it continues to be the single largest provider of federal

funds to local elementary and secondary schools. In fact, its central program, Title I, is the second largest federal early childhood education program after Head Start.

Throughout the 1970s and 1980s, more and more federal legislation was passed to support child care facilities, preschools, and kindergartens. In 1975, Title XX of the Social Security Act (P.L. 111-148) subsidized child care facilities in 45 states (Yoest, 1998). In 1976, Congress altered the Dependent Care Tax Credit Act of 1956 to give parents an $800 subsidy per household for child care. This tax credit was increased again in 1984 to $1,440. Preschool became a form of child care that was based on academics and subsidized through a tax credit by the Federal Government. This may have exacerbated an already growing division among the nation's socioeconomic groups, because wealthy families sent their children to private preschools and daycare centers, while low-income parents sent their children to federally funded preschool programs that may have been lacking in rigor and quality (Bloch et al., 2001).

In 1981, during President Ronald Reagan's administration, the Education Consolidation and Improvement Act (P.L. 97-35) was passed. This law authorized funds to help school districts meet the special educational needs of children, including preschoolers, from low-income areas and to provide compensatory educational services for children with disabilities. Improving America's Schools Act (IASA) of 1994 (P.L. 103-382) was a major part of the Clinton Administration's effort to reform education. The IASA reauthorized the Elementary and Secondary Education Act of 1965 and included provisions for the Title I program to provide extra help to disadvantaged students, including preschoolers, and hold schools accountable for their results at the same level as other students. It also included provisions or reforms for charter schools,

safe and drug free schools, professional development, major increases in bilingual and immigrant educational funding, impact aid, and education technology and other programs (New York State Education Department, n.d.)

In the 1990s, Head Start was expanded to include an Early Head Start program that served children from birth through age 3. Among Early Head Start's mission was to enhance school readiness for low-income students "by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children and families" (Lips, 2009, para. 9). Also in the 1990s, the Federal Government provided block grants to states to subsidize the child care expenses of families with incomes below 85% of the state median. Under the Child Care and Developmental Block Grant (CCDBG) program, eligible families were offered a voucher to enroll their children in child care programs. States were also required to target a portion of the funding to provide child care subsidies for welfare recipients working toward self-sufficiency.

In 2002, President George W. Bush signed the No Child Left Behind Act of 2001 (NCLB, P.L. 107-110), which re-authorized ESEA and expanded the use of federal funds in the education of children, including preschoolers, in public schools.

The Individuals with Disabilities Education Act (IDEA) of 2004 is the successor legislation to the Education for all Handicapped Act of 1975 (P.L. 94-142) and is the main federal program that supports special education. States use a portion of the funding received through IDEA to provide services for infants and preschoolers with disabilities.

The U.S. Department of Education also provides early childhood education through the Early Reading First program. Through this competitive grant program, the

Department funds programs administered by local education agencies and other organizations that provide services designed to improve school readiness of low-income children, with a focus on reading skills.

According to a conservative estimate, total federal spending exceeded $25 billion on federal preschool programs in 2009. This estimate includes $5 billion in one-time spending in the American Recovery and Reinvestment Act and at least $20 billion in on-going programs and tax benefits.

A National Concern

As indicated above, No Child Left Behind (NCLB) was an initiative set by former President George W. Bush in 2002, which mandated that all students must achieve basic proficiency in literacy and numeracy by 2014. With this goal firmly established and annual yearly progress (AYP) benchmarks clearly delineated to mark local schools' progress, many districts found themselves struggling to incorporate new programs that would help them to accomplish this goal. Preschools were seen as an important strategy in this effort.

Preschool has been identified as the first formal academic classroom-based learning experience that a child receives. As noted above, attending a private preschool program was historically a choice made by the child's family, which entailed a financial responsibility for paying for preschool (Snow, Burns, & Griffith, 1998). No Child Left Behind (NCLB) increased the emphasis on the need to close the achievement gap between children from low-income families and children from more financially affluent families. One way of closing this gap was to increase access to high quality

preschool programs (National Assessment of Educational Progress [NAEP], 1999; Snow et al., 1998).

Studies have shown that students who attend a preschool program perform better in school than students who do not attend a preschool program. Moreover, this may, in fact, be truer when the students in question are socioeconomically disadvantaged. Studies have also shown that the quality of the preschool program is important in developing students' literacy skills (Campbell, Pungell, Miller-Johnson, Burchinal, & Ramey, 2001; Peisner-Fienberg & Burchinal, 1997; National Institute of Child Health and Human Development [NICHD], 2005; Sammons et al., 2004). NCLB has led many states to provide monies to increase the number of children who attend these high quality preschool programs.

Recent Trends in New Jersey

In 1998, there was sweeping reform in New Jersey based on a state Supreme Court ruling (Abbott *v.* Burke, 1998; subsequently upheld in Abbott *v.* Burke VI, 2000) that clearly demonstrated the importance of early childhood education for poor students. The ruling, which had its origin in a series of earlier Supreme Court decisions (Abbott *v.* Burke, 1985; Robinson *v.* Cahill, 1973), declared that the manner in which the state of New Jersey funded education for predominantly low-income preschool children was inadequate and unconstitutional. It provided the impetus for former Governor Jon Corzine to take action. He provided more than $500 million in state funding for the state's 31 poorest districts. He also made available $8.5 million to other districts that could demonstrate at least a 40% low-income population. This funding was to be used to strengthen early childhood programs for low-income children. Corzine felt that investing

in a quality preschool was an effective way to help children from low-income backgrounds overcome obstacles to learning. This funding was also made pursuant to the earlier 1998 ruling that mandated that the state fund 3-year-old and 4-year-old full-day preschool programs in the state's 31 Abbott districts (New Jersey Department of Education [NJDOE], 2007; Walker, 2003).

Subsequent attempts to maintain a sustained level of funding proved fruitless due in part to a global recession that began in 2008, and in 2010, Governor Chris Christie cut funding to many school districts in New Jersey. This decision had districts scrambling for strategies on how they could make up the funding for preschools within their districts. Some districts cut teachers, while others cut programs. Preschool programs that were not initiated under Corzine have very little chance of getting started under the current political regime. Other preschool programs continue to struggle to stay afloat with the hope that their local school boards will see the benefits of their preschool programs and vote to fund them by whatever means possible.

District Concerns

Presently By-the-Sea School District (a pseudonym) has a full-day 4-year-old preschool program. Although this program is designed to develop the skills of all of our preschool students, there is a recognizable weakness in the skill base of our low-income students. District data have consistently demonstrated what national studies have long shown; that is, low-income children perform consistently more poorly than non-low-income students, and as they grow older, the gap between these two populations becomes larger (Corey, 2001; Wright, Diener, & Kay, 2000).

In the illustrations that follow, this gap between the economically disadvantaged and total populations in the district is clearly demonstrated.

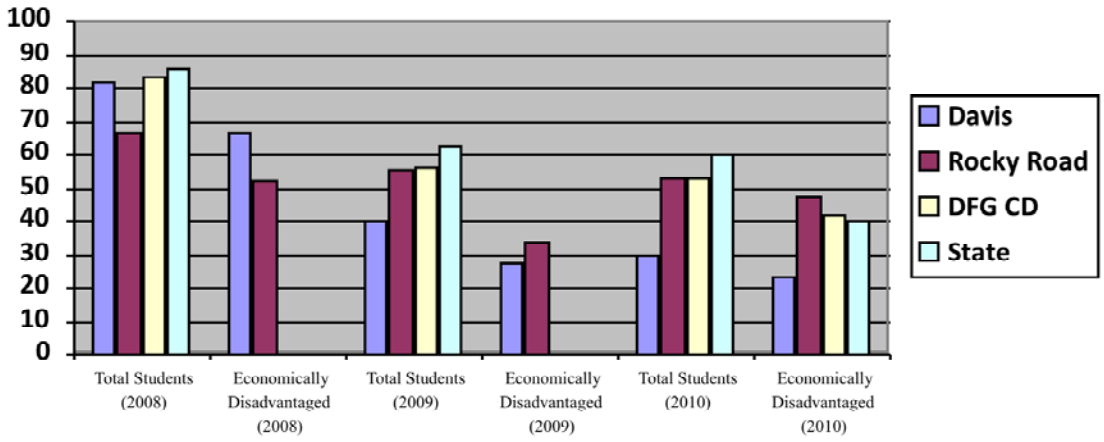

Figure 1. ASK 3 LAL Subgroups – Percent Proficient and Advanced Proficient

As the data in Figure 1 show, at both the Davis and Rocky Road schools (schools in the By-the-Sea School District that serve elementary grade levels), economically disadvantaged students performed substantially lower than the total grade 3 population in language arts literacy on the NJ ASK-3 state exams in 2008, 2009, and 2010. Figure 1 further illustrates that similar gaps in achievement exist both in other schools within the same District Factor Group (DFG) and the state of New Jersey.

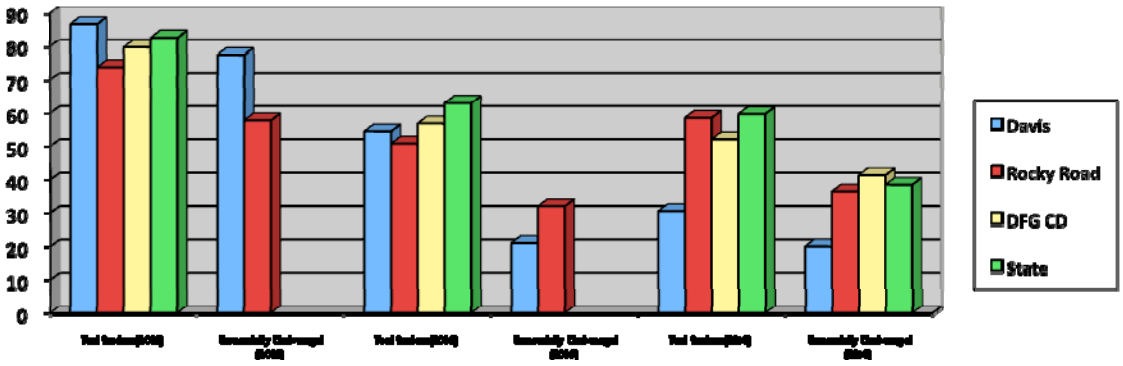

Figure 2. ASK 4 LAL Subgroups- Percent Proficient and Advanced Proficient

A similar trend is also demonstrated in Figure 2, where the data also show fourth graders in the total population outperforming economically disadvantaged students in 2008, 2009, and 2010 as measured by the NJ ASK-4 in language arts literacy. Once again, the data clearly show that this gap exists not only in the Davis and Rocky Road schools, but in other schools within the same DFG as well as state-wide.

The educational project that is part of this dissertation effort seeks to change this outcome. It seeks to reverse the downward spiral of academic failure that starts with preschool-age low-income children, and instead begin to build a solid foundation upon which these children can grow both developmentally and academically. The focus of this project, therefore, is on our low-income preschool population and how to improve their current literacy skill level. This project nurtures and empowers collaboration, creativity, and innovation among our staff to design a child-centered intervention program that meets the needs of our low-income preschool students within the By-the-Sea School District. I serve as the project director.

Proposed Change

Our low-income students demonstrate an achievement gap that begins in preschool. If we can eliminate, or even decrease, the gap at this age, students have a better chance to succeed in their future educational endeavors. This project is intended not only to help our low-income students perform better in school, but also to develop an environment for collaboration and creativity that encourages innovative thinking and collaboration among the staff as they develop the student interventions.

Need for the Preschool Intervention Project

At By-the-Sea School District, there is currently no program that focuses solely on the needs of our low-income families. Of course, we have programs that are aimed at improving student achievement in general, but there is little focus on socioeconomic status (SES) alone. This project focuses specifically on the needs of our low-income preschool students and concentrates on closing the achievement gap among the SES subgroups within our school district.

The purpose of my action research was to study the process of designing and implementing this project, which also included establishing an accountable, sustainable, support system as its outcome. This research began in 2009-10 in the New Age preschool and Davis school buildings located in By-the-Sea School District and continued in 2010-11 in the Davis school building, where the interventions were implemented.

In the By-the-Sea district, we began our 4-year-old full day preschool program in September 2007. As the project to serve these students unfolded under my leadership, we implemented research-based interventions that were designed to improve the skills of our low-income preschool students. In this study, I worked with 10 teachers and their

classroom aides to help them implement new intervention strategies. I facilitated the change and set up an open environment, where the teachers were able to make the necessary changes to their classrooms and school to better meet the needs of our low-income students. In addition to studying the process and outcomes of this preschool intervention project, I also studied the organizational culture of the Davis school (where the interventions were primarily involved), the process of change, as well as my own leadership as the project evolved.

Brief Description of Action Research Project

During the first cycle of this action research project, I was able to take the time and build background knowledge on what was currently being done in the classroom at the two target schools, New Age and Davis. I interviewed the preschool teachers, observed their classrooms, held a series of focus group interviews, and helped to organize and structure a professional learning community (PLC) among the teachers who would participate in the action research project and implement the preschool interventions. During this first cycle, the PLC began reading the first of several books; an activity that would continue throughout the project. These included *Inequalities at the Starting Gate: Social Background Differences in Achievement as Children Begin School* (Lee & Burkam, 2002) in cycle 1, *Other People's Children: Cultural Conflict in the Classroom* (Delpit, 2006) and *The Leader in Me* (Covey, 2008) in cycle 3, which allowed us to better understand the need for interventions to help our low-income students succeed in the classroom setting and how to structure and use them. This was done during the months of November 2009 to February 2010. This cycle gave us insight into what was currently being done in the classroom.

The intervention put into place during Cycle 2 included a preschool reading night program where students and parents were invited to enjoy snacks, crafts, and discuss stories that were read aloud by different faculty within the district. Preceding the reading night program, we conducted a McDonald's fundraising event, and we used those funds to conduct the reading night events every Tuesday evening for an 8-week period. This cycle was conducted from March 2010 to June 2010.

The third cycle was a planning cycle, which took place from June 2010 to August 2010, during which time the PLC assembled and discussed Cycle 2 findings and planned further interventions that we implemented in September 2010.

The last cycle of research was Cycle 4, which lasted from September 2010 to January 2011. This cycle continued the preschool reading night program, while we also implemented additional interventions. One of the kindergarten classes implemented differentiated instruction, while the other implemented technology within the classroom, and the third class was the control group. These groups were studied and compared using the Phonological Awareness Test (PAST) as well as the Brigance Assessment and teacher-constructed benchmark assessments.

Research Questions

The following research questions guided this study.

1. How successful have the project interventions been in…
    a. improving the literacy skills of low-income kindergarten children in the By-the-Sea School District?

b. closing the achievement gap in literacy between low-income kindergarten children and non-low-income kindergarten children in the By-the-Sea School District?

2. To what extent did the following contribute to/influence the implementation of the kindergarten interventions research project?
    a. My transformational leadership?
    b. My ethical leadership?
    c. My understanding of the culture of the Davis School?
    d. My understanding and leadership of the change process?

Importance and Significance of the Study

The importance of my research lay in its development and implementation of a support system for the preschool and kindergarten project that focuses on improving the literacy skill base of our low-income students. Student achievement data within our district suggests that we are not closing the achievement gap between our low-income students and their more advantaged peers. This study sought to create interventions that might help close this achievement gap. My study is significant because the results of our intervention may help other teachers develop interventions that can assist low-income preschool students in the development of literacy skills. This study also provides a research-based model for other districts to replicate if they have the same area of concern. The next chapter describes and discusses some of the research that undergirds this project.

Chapter 2

Review of Selected Literature and Conceptual Frameworks for the Study

Introduction

There are many challenges facing education today. One challenge is represented by the different skill bases with which students from different socioeconomic backgrounds enter school. Low-income students start school with significantly fewer literacy skills than more advantaged students (Lee & Burkman, 2007). This means that low-income children are already behind before they even enter a classroom setting. A key goal of education is to ensure that all students, and especially low-income and disadvantaged students, have the same opportunities to succeed in their school settings, which will then help them succeed in their future endeavors. Previously, in the introductory chapter (see Chapter 1), I explored briefly the history of preschool education in America. In this literature review, I explore the research on selected best practices of preschool interventions, including reading readiness, parental involvement, differentiated instruction, and technology in the classroom. After careful consideration by our PLC, which included reading several books identified in Chapter 1 and other research that is cited in this chapter, these best practices (interventions) were selected as the basis for this action research project. These interventions were based on our research as well as our knowledge of the students' within our district, and thus formed a major conceptual framework for this action research study. I also explore the research on leadership, change, and organizational culture, as these constructs form the other conceptual frameworks that I have used in conducting the study.

Review of Selected Literature of Preschool Education Practices

A meta-analysis conducted by Corey (2001) reveals that the cognitive effects of intense preschool interventions remain significant even after as many as 10 years. When compared to students who did not attend preschool, students who attended preschool are less likely to suffer as adults from many societal problems, including welfare dependence, unemployment, poverty, and criminal behavior (Corey, 2001; Wright et al., 2000). Research also suggests that children who begin school a year earlier than same-age peers tend to have better emergent literacy and reading skills. Preschool programs also have a positive effect on students' health and socio-emotional development (Crone & Whitehurst, 1999; Currie, 1996; Currie & Thomas, 1995; Grimmett, 1989), and they have been shown to contribute positively to the educational development of low-income students (Lee, Brooks-Gunn, Schnur, & Liaw, 1990; Wiekart, 1989). In addition to their positive impact on community behavior and school performance, preschool programs have yielded a cost effective savings for the public schools and society in general. Evidence of these savings include the reduced need for special education services for preschool participants, lower welfare assistance for these participants, and savings to the criminal justice system (Corey, 2001; Schweinhart, Barnes, & Weikart, 1993).

Low-income children live in poverty and often receive free and reduced price lunch from their current school systems. Current research suggests that children from low socioeconomic backgrounds enter kindergarten less prepared than students from higher socioeconomic backgrounds (Lee & Burkman, 2002; Hebeler, 1985; Lee, Brooks-Gunn, & Schnur, 1988). Thus, low-income children are at a significant disadvantage when they begin their school careers. Researchers have also found that children who are raised in a

low socioeconomic home environment exhibit less developed expressive language skills when compared with children raised in more advantaged circumstances (Chaney, 1994; Fazio, Naremore, & Connell, 1996). Research also suggests that disadvantaged children who receive intensive exposure to curriculums that emphasize quality language instruction may experience accelerated expressive language growth during pre-kindergarten (Justin, Mashburn, Pence, & Wiggins, 2008). Preschool programs for low-income children were purposively designed with the hope that the early intervention would help them to get out of poverty and allow these students to begin on an equal footing with their more privileged peers (Zigler & Valentine, 1979). Recent research has also demonstrated the benefits of preschool education "for early school success and for narrowing the achievement gap between racial, ethnic, and income groups of students" (Hughes, 2010, p. 48).

In New Jersey, students who participated in Abbott preschool programs for 2 years showed significant improvements in early language, literacy, and math skills at kindergarten entry. These students also performed significantly better in math, language comprehension, and vocabulary skills through second grade. After 2 years in preschool, Abbott school students were 50% less likely to repeat a grade (Frede et al., 2009).

Reading Readiness: An Important Practice in Preschool Education

Gregory and Morrison (1998) discuss how reading is the foundation of future education. Anderson, Hiebert, Scott, and Wilkinson (1985) explain that it is important to devote resources to the early years of education when children are learning to read. For the nation to be competitive in the increasingly global economy, children must possess the skills necessary to read and reason, so educators need to ensure students become

literate (Adams, 1990). The Educational Portal, an online website for original research, reported some disturbing statistics:

- 42 million American adults can't read at all; 50 million are unable to read at a higher level than is expected of a fourth or fifth grade student,
- The number of adults who are classified as functionally illiterate increases by about 2.25 million each year,
- 20% of high school seniors can be classified as functionally illiterate at the time they graduate,
- 70% of prisoners in state and federal prisons can be classified as illiterate,
- 85% of all juvenile offenders are functionally or marginally illiterate, and
- 43% of those whose literacy skills are lowest live in poverty. (http://www.nrrf.org/essay_Illiteracy.html)

There has been a persistent effort among teachers and others in the educational system to eliminate these problems, but still children go through school without learning how to read (Gregory & Morrison, 1998). Over one million children in the United States attend publicly funded preschool and pre-kindergarten programs, and many of these children face higher risks for academic struggles, especially readiness, due to environmental disadvantages (Clifford, Early, & Hills, 1999).

The literature corroborates the belief that reading aloud to children from infancy is critical to future reading success (Durkin, 1966; Karweit & Wasik, 1996; Mason, 1980; Sulzby, 1983; Teale, 1982). A significant predictor of future reading achievement is the

number of hours children were read to while they were in preschool (McGhee & Richgels, 1996). Reading to students at a young age on a daily basis is one way to build literacy skills among our student population. Early literacy instruction, including phonemic awareness instruction and read alouds, can make reading accessible at an earlier age to more children (Ehri et al., 2001; Snow et al., 1998).

Preschool education provides children with daily learning experiences and play opportunities aimed at enhancing their cognitive and social development; it also provides children with a variety of activities that foster school readiness, especially with regard to reading. Substantial research has demonstrated that good quality education and child care can enrich children's development because they engage children in stimulating and cognitively facilitating activities (Campbell et al., 2001; Peisner-Fienberg & Burchinal, 1997; NICHD, 2005; Sammons et al., 2004; Schweinhart et al., 1993). Educational experiences obtained during the years between preschool and third grade form the basis for later school success, again especially in reading. In high quality preschools, teachers engage students more in sustained shared thinking and in social conversation. They use more direct teaching in small groups, which includes modeling, questioning, and demonstrating. There is more time in adult-led activities which allows them to experience academic curriculum areas such as communication, language literacy, numeracy, and knowledge and understanding of the world. High quality preschools encourage more structured play through the careful choice of materials and planned group activities (Sylva et al., 2007).

There is an understanding within the field of early childhood development that young children learn through play and that play has value for development (Johnson,

Ershler, & Bell, 1980). Formal preschool programs encourage young children to engage in goal-directed behavior often set by the teacher. These programs implement activities that are focused on a particular skill and teacher directed. Free play preschool programs encourage children to interact with their environment at their own pace. These programs offer more choice and less structure to the day. Students are able to explore the environment on their own. The research suggests that the theoretical foundation upon which a program is based can influence young children's play behavior in a preschool setting (Johnson et al., 1980). Nevertheless, both formal programs and free play programs offer benefits to the students and can help them improve their literacy skills.

Parental Involvement

"Three decades of research show that parental participation in schooling improves student learning" (LeTendre, 2002, p. 3). Researchers have shown that there is a link between supportive parental involvement and children's early literacy development.

> Snow, Barnes, Chandler, Goodman, and Hemphill (1991) and others have shown that children from homes where parents model the use of literacy and engage children in activities that promote basic understandings about literacy and its uses are better prepared for school. (Strickland, 2004, p. 86)

Researchers explain that parents are the children's first and primary teachers. Mason (1980) reports that parents provide the primary foundation for later literacy, and they should provide experiences that increase their children's knowledge of reading. It has been found that, when given the skills and opportunities to be involved in early interventions, many parents become active and resourceful (Powell, 1989). "Parents must be viewed as partners in the learning process because their role in their child's learning is crucial" (Faires, Nichols, & Rickelman, 2000, p. 196). School boards, teachers,

administrators, parents, and students must work together and share the responsibility of student achievement.

Differentiated Instruction

La Paro, Pianta, and Stuhlman (2004) have argued, "interactions between children and teachers are a primary mechanism through which classroom experiences affect development" (p. 412). The intent of differentiated instruction is to identify children who are not progressing and provide them with a more intense individualized intervention (Fuchs, Fuchs, & Compton, 2004; Fuchs, Mock, Morgan, & Young, 2003; Justice, 2006). Differentiated instruction should take place early in the students' academic careers before they have prolonged periods of failure. This kind of instruction is based on the children's individual needs (Bradley et al., 2005; Fuchs et al., 2003; Justice, 2006).

Tomlinson and Allan (2000) state that instruction can be differentiated according to content, process, and product. Teachers differentiate when they accommodate students' different interests, learning styles, and degree of learning readiness; of particular relevance to this current study for students who have experienced disadvantage in the early years (Clifford et al., 1999). Differentiated instruction takes into account the learning environment as well. Teachers can adjust instruction and work with students individually or in small groups, as well as use a variety of delivery methods for the instruction (Tomlinson, 2001). Koutsoftas, Harmon, and Gray (2009) have found that focused literacy interventions proved more successful for preschool students than did non-focused interventions. In their study, differentiated instruction was able to improve literacy skills of their preschool participants.

Technology

A persistent question among educators at all levels is whether optimal learning occurs in classrooms where every child has access to computers and current technology. A recent study reported that most developing nations are striving to provide every student with his or her own computer (Owston & Wideman, 2001). Owston and Wideman found that students who had computers and the latest technology were more focused on the lesson and what was being taught. They also found that classrooms that implemented technology spent less time in activities involving the application of knowledge and more time in higher level analysis, synthesis, and evaluation. Researchers also have found that technology can make a difference in the academic success of elementary school students (Brass, 2008; Page, 2002).

Researchers have also noted that for technology to be effective in the instructional literacy classroom, it must be accessible, used to enhance and transform literacy instruction, and used to prepare and empower students for the future (Labbo & Reinking, 1999). Many researchers suggest that, when used to teach word identification, computer-assisted instruction is beneficial (Barker & Torgesen, 1995; Foster, Erickson, Foster, Brinkman, & Torgesen, 1994). Blachowitcz, Buhle, Frost, and Bates (2009) found that technology did improve literacy skills and had a positive effect on academic achievement in general. Students were more enthusiastic about learning and were more engaged in the lessons. Using technology in the classroom was also conducive to differentiated instruction among all learners. Students were able to build skills, confidence, and independent work habits in both literacy and technology. In summary, the research

clearly shows that significant learning occurs with the use of technology in the literacy classrooms (Blachowicz et al., 2009; Judson, 2010; Lowther, Inan, Strahl, & Ross, 2008).

Best Practices Summary

Preschool is an important part of the development of students and how well they succeed in school. The research indicates that a preschool that has trained teachers and offers a variety of interventions is successful in the endeavor of preparing students for their later academic careers (Ross & Bruce, 2007). As I have shown above, research has suggested that best practices such as reading readiness (e.g., phonemic awareness, read alouds, shared thinking and social conversation exercises, small group instruction, and structured play), parental involvement, differentiated instruction, and technology in the classroom contibute to the success of low-income students within the classroom.

Review of Selected Literature on Leadership

Leadership is an important part of how schools and organizations operate. Leaders are by definition change agents in organizations. Within any change project, it is important to study the leadership of the change facilitator to better understand the process of the project. Leadership has had many scholars analyze and question the tools and techniques that help someone become an effective leader. There are many leadership theories, including those that explain charismatic leadership, feminist leadership, servant leadership, situational leadership, visionary leadership, as well as transactional and transformation leadership that have come out of the analysis of leadership. In the following paragraphs, I present a brief overview of the leadership styles that I have studied and a detailed study of my espoused theory of leadership: transformational and ethical leadership.

Charismatic Leadership

According to Nadler and Tushman (1990), the charismatic leader possesses a special quality that enables him or her to mobilize and sustain activity within an organization through specific personal actions combined with perceived personal characteristics. Charismatic leaders are observable, definable, and have clear behavioral characteristics. The first quality of a charismatic leader is envisioning. This involves the creation of a picture of the future, or of a desired future state, with which people can identify and which can generate excitement. This is done by articulating a compelling vision, setting high expectations, and modeling consistent behaviors.

The second quality of a charismatic leader is the ability to energize. The charismatic leader directs energy by demonstrating personal excitement and expressing personal confidence. The third quality of charismatic leadership is the ability to enable. Charismatic leaders psychologically help people act or perform in the face of challenging goals. They do this by expressing personal support, empathizing, and expressing confidence in people. Charismatic leaders provide a psychological focal point for the energies, hopes, and aspirations of people in an organization. They also serve as powerful role models whose behaviors, actions, and personal energies demonstrate the desired behaviors expected throughout the organization. There are, however, some limitations of the charismatic leader, which include the potential for unrealistic expectations, dependency and counter dependency with followers, reluctance to disagree with the leader, and limitations of range (Conger & Kanungo, 1998; Yammarino & Avolio, 2002).

Visionary Leadership

The leader as keeper and maintainer of the vision for an organization is prevalent throughout the literature (Fullan, 2001; Kotter, 1996; Senge, 1999). Sashkin (1989) defines visionary leaders as those who construct the vision, develop the organization to support the vision, and then "engage on a one-to-one basis in order to create and support their visions" (p. 403). Charismatic leaders are usually visionary leaders as well. Visionary leaders often have a personal conviction to the change that they wish to enact. They also make sure there are opportunities for others to "buy-in" to the vision and "to take risks with the leaders and share in the efforts and the rewards" (Sashkin, 1989, p. 407).

In addition, McLaughlin (2001) states:

> A visionary may dream wonderful visions of the future and articulate them with great inspiration. A visionary is good with words. But a visionary leader is good with actions as well as words, and so can bring her vision into being in the world, thus transforming it in some way. (McLaughlin, 2001, p. 1)

Visionary leadership, as described by Sashkin (1989) and McLaughlin (2001), has three major aspects: constructing a vision, defining organizational philosophy, and leadership practices. The first is constructing a vision. This entails creating an ideal image of the organization and its culture. The next aspect involves defining an organizational philosophy that goes along with the vision. This includes developing programs and policies that put the philosophy into practice within the organization. Finally, the focus is on the leaders' practices: the specific actions in which leaders engage on a daily basis in order to create and support their vision (McLaughlin, 2001; Sashkin, 1989). Sashkin (1989) describes the five behaviors of visionary leaders as: focusing

others' attentions on key issues and helping them to grasp and commit to the vision; communicating effectively; being consistent and trustworthy; having respect for self and others; and finally, taking calculated risks and sticking to them.

Feminist Leadership

Feminist leadership is defined as a theory that believes in productive relationships among the people within the organization (Grogan, 1996). An aspect of feminist leadership is that a leader will focus on the social and emotional development of others and the development of professional relationships (Lincoln, 2000). Feminist leaders have self-awareness as part of a larger whole, as well as a shared leadership, which calls attention to bringing the community along with them. Feminist leaders are relational and build strong trusting relationships. They are inclusive and encourage participation (Rosener, 1990). They lead with clarity of purpose while creating safe environments for expression and growth of leadership skills.

Care is a characteristic of feminist leadership that has the potential to transform school organizations (Noddings, 2005). In feminist leadership theory, caring relationships are drastically needed to address the social and moral deficits that exist as a result of rapid societal change (Friere, 2000). Feminist leadership is closely linked to social justice leadership and supporting the oppressed (Friere, 2000). Relational feminist leadership advocates gender sensitivity as well as consensus building and distribution of power. Interactive leadership (Rosener, 1990) resembles servant leadership and is oriented towards cooperation and teamwork (Schein, 1992).

Servant Leadership

Robert K. Greenleaf was the founder of the servant leadership movement. He coined the term "servant-leader" in his 1970 essay, "The Servant as Leader." Servant leadership occurs when leaders demonstrate an acceptance of individuals' diversity and look at how they can serve others in an effort to reach their goals. Sergiovanni (2000) states that, "servant leadership is practiced by serving others as one becomes an advocate on their behalf" (p. 284). Servant leadership emphasizes collaboration, trust, empathy, and the ethical use of power. Servant leaders are servants first, making the conscious decision to lead in order to better serve others, not to increase their own power. The objective is to enhance the growth of individuals in the organization and increase teamwork (Baron, 2010; Blanchard & Hodges, 2003; Greenleaf, 1995).

Situational Leadership

A situational leader is one who can adopt different leadership styles depending on the situation. Hersey (1997) and Blanchard (2009) characterized leadership style in terms of the amount of task behavior and relationship behavior that leaders provide to their followers. They categorized all leadership styles into four behavior types. One behavior is *telling*, and it is characterized by one-way communication in which the leader defines the roles of the individual or group and provides the what, how, when, and where to do the task. Another behavior is *selling*. Even though the leader is providing the direction; he or she is using two-way communication and providing the socio-emotional support that will allow the individual or group being influenced to buy into the process. Though somewhat similar in nature to *telling* (both are directive task behaviors), *selling* is characterized by some degree of choice, while the *telling* behavior provides no options. The third behavior is *participating.* This behavior is characterized by shared decision making about aspects

of how the task is accomplished. The leader is providing less task behavior while maintaining high relationship behavior. The last behavior is *delegating*. The leader is still involved in decisions; however, the process and responsibility have been passed to the individual or group. The leader stays involved to monitor progress (Blanchard, 2009; Hersey, 1997; Hersey & Blanchard, 1993).

In effect, situational leaders vary their leadership styles depending on the situation. In other words, their leadership depends on their own need for maintaining human relationships and followers' willingness and ability to respond to leadership. Relationship building is an aspect of situational leadership, different from feminist leadership (Noddings, 2005, Rosener, 1990), that the leader relies upon to understand and develop the capacities and abilities of the followers, and to be able to adjust the leadership style to the situation at hand to maximize performance.

Transactional Leadership

Zaleznik (1977) and Burns (1978) both have characterized transactional leaders as those who motivated their followers by exchanging rewards for services rendered. Burns, in his treatment of political leaders, saw transactional leaders as exchanging with their followers one thing for another: "jobs for votes, or subsidies for campaign contributions" (as cited in Avolio & Bass, 2004, p. 16). Zaleznik asserts that managers "survey their associates' needs and set goals for them based on what they can rationally expect from [them]" (as cited in Avolio & Bass, 2004, p. 16). Similarly, transactional leadership has been explained by Yukl (1999) as a process in which leaders manage environmental variables to effect change. He asserts that leading people effectively is to get them to perform assigned tasks willingly and in an efficient manner. In this theory, the leader

assumes the dominant role among the group and is decisive when making decisions.

Burns (2003) states that transactional leadership occurs when someone does something based on the return. This leadership approach is all about requirements, conditions, rewards, and/or punishments. Transactional leaders approach their followers with a plan to exchange one thing for another. These leaders get people to do what they want based on the consequences of their actions when it is completed. They do not necessarily get buy-in or support from their followers; instead they give them some reward or punishment for their actions. This leadership style is responsive, and it deals primarily with present issues. It does not look ahead at what may need to change for the future success, but instead it reacts to the situations currently in place. Transactional leaders motivate followers by setting goals and promising rewards for desired performance. Leadership depends on the leader's power to reward or sanction subordinates for their successful or unsuccessful completion of the bargain.

Avolio and Bass (2004) offer that transactional leadership can be manifested in either two forms: constructive or corrective. In its constructive form, transactional leaders "set up and define agreements or contracts to achieve specific work objectives" (p. 3). In its corrective form, which can be either active or passive, the transactional leader focuses on setting standards. When actively engaging in corrective transactional leadership, the leader closely monitors followers to avoid the occurrence of errors. When passively engaging in corrective transactional leadership, the leader simply waits for mistakes to occur before taking action. In either form, the focus is on identifying mistakes.

Some scholar/researchers have labeled the different leader behaviors within the domain of transactional leadership as contingent reward and management-by-exception:

active. Leaders who exercise a laissez-faire form of leadership (management-by-exception: passive) have been characterized as passive/avoidant leaders (Avolio & Bass, 2004). Transactional leadership is necessary in certain situations, primarily first order changes, which will not withstand any length of time or scrutiny (Avolio & Bass, 2001; Burns, 2003; Yukl, 1999). In summary,

> Transactional leaders work toward recognizing the roles and tasks required for associates to reach desired outcomes; they also clarify these requirements for associates, thus creating the confidence they need to exert the necessary effort….They also recognize what associates need and desire, clarifying how those needs and desires will be satisfied if the associate expends the effort required by the task. (Avolio & Bass, 2004, p. 20)

Transformational Leadership

James McGregor Burns (2003) introduced the concept of transforming leadership in his research on political leaders. His theory clarified the earlier work by Downton (1973) who sought to explain differences that he perceived "among revolutionary, rebellious, reform and ordinary leaders" (as cited in Avolio & Bass, 2004, p. 16). It was later refined by Bass (1985), who coined the term *transformational* leadership. (Burns and Bass are among the more prominent apologists for transformational leadership.) Burns posited that this type of leadership is a process in which the leader and the followers help each other to establish a higher morale and motivation. Transformational leaders develop a process that helps turn followers into leaders (Avolio, 1999). Researchers suggest that transformational leadership is best explained by empowering followers to grow into leaders (Kirby, Paradise, & King, 1992; Lambert, 2005; Senge, 1990; Walker, 2003). Burns (2003) further posits that transformational leadership makes the leaders and followers better people by raising their levels of morality and values. Transformational leaders encourage followers to collaborate rather than work solely as

individuals. Burns asserts that transformational leadership is an ongoing process. Further, Bass (as cited in Avolio & Bass, 2004) proffers that transformational leadership is a "higher-order exchange process: not a simple transaction, but rather a fundamental shift in orientation, with both long and short term implications for development and performance" (p. 19).

Bass (1985) believes that leaders transform followers by increasing the awareness of the importance and value of the change. They also transform followers by getting them to focus first on the goals of the group rather than their own interests. Activating their higher order needs is another way leaders can transform followers.

> Paraphrasing Burns, Bass…described transformational leaders as those who:
> - recognize what their associates' level of awareness is of the importance of achieving valued outcomes and the strategies for reaching them;
> - encourage associates to transcend their self-interest for the sake of the team, organization, or larger policy; and
> - develop associates' needs to higher levels in such areas as achievement, autonomy, and affiliation, which can be both work related and not work related. (Avolio & Bass, 2004, p. 16)

According to Burns (2003), transformational leaders work together with their followers toward a common goal. They allow for their followers to have a voice in the leadership process. This leadership process is proactive. Transformational leaders try to make changes in the organization before problems arise. This theory also allows for the leaders to create learning opportunities for their followers and stimulates them to solve problems on their own or together. This leadership style motivates followers to work for goals that go beyond self-interest. In its most idealized form, transformational leaders are charismatic leaders. They are "admired, respected, and trusted" (Avolio & Bass, 2004, p. 95). They inspire followers and "motivate… them by providing meaning and challenges to their followers' work" (Avolio & Bass, 2004, p. 95). Some researchers have

labeled these transformational characteristics as idealized attributes and behaviors, inspirational motivation, intellectual stimulation, and individual consideration (Avolio & Bass, 2004).

Transformational leaders can lead second order change because the followers have a voice in the change, and they are connected to the process. This change will stand the test of time and scrutiny because the leader allows the followers to become leaders themselves and a part of the change process. Due to this relationship, even after the leadership changes, the change will endure because the followers have had a hand in its development through engagement in dialogue, inquiry, critique, and collaborative planning (Brown, 2007; Leithwood, 1992; Senge, 1990). A transformational leader thinks about the individuals involved in the change process, and in so doing, is also acting as an ethical leader.

Ethical Leadership

Shapiro and Stefkovich (2001) include four paradigms within ethical leadership. These paradigms include the ethics of justice, critique, care, and profession. The ethic of justice focuses on the rights of followers and what law or policy states when dealing with certain situations. When leaders are making decisions, they should ensure that they know and understand the laws, rules, and policies that go along with their decisions. Leaders who follow an ethic of justice take into account the consequences of their actions. Through the paradigm of the ethic of justice, both the people who will benefit from a leader's decision and the people his or her actions may hurt are taken into consideration. Within the ethic of justice, there is a commitment to the tolerance and respect for all

people and a dedication to look into laws and public policies for ethical guidelines. These guidelines are not accepted as finite and may be questioned.

In the ethic of critique, the leader questions the laws and the process used to determine if the laws are just (Shapiro & Stefkovich, 2001). Within this paradigm, rather than simply accepting the ethic of those in power, leaders may challenge the status quo. The ethic of critique provides discussion and action for expanding basic human rights and the elimination of inequalities. Leaders who follow the ethic of critique speak up for the silenced and allow their voices to be heard. Consistent with some of the tenets of feminist leadership (Friere, 2000), this paradigm focuses on the suffering and oppression of individuals through social injustices. Leaders work toward empowering and transforming their followers while grounding their decisions in morals and values.

The ethic of care (Shapiro & Stefkovich, 2001) is similar to the ethic of critique in that the focus for each is on social justice. Leaders sometimes turn to the ethic of care for moral decision making. This paradigm includes care, concern, and connection as the three basic frameworks. Within the ethic of care paradigm, the leader must consider multiple voices in the decision-making process. Leaders need to encourage collaboration among all the stakeholders to promote interaction that will facilitate a sense of belonging and increase the stakeholders' skills as they learn from one another (Beck, 1994). This ethic also asks that the stakeholders consider the consequences of their decisions and actions on everyone involved.

The ethic of profession has been included within the Standards for School Leaders by the Interstate School Leaders Licensure Consortium (ISLLC). Standard 5 states: "A school administrator is an educational leader who promotes the success of all students by

acting with integrity, fairness, and in an ethical manner" (CCSSO, 2009, p. 12). In the past, professional ethics have leaned more toward the ethic of justice, but since this ISLLC mandate, the view of professional ethics has changed. The concept of professional ethics includes ethical principles and codes that are embodied in the justice paradigm, but it is expanded by taking into consideration professional judgment and decision making. This paradigm includes a process wherein leaders develop their own personal and professional codes. Shapiro and Stefkovich (2001) describe a paradigm for the profession that expects its leaders to examine and study their own professional codes of ethics in relation to their individual personal codes of ethics while connecting the standards set forth by the profession. They ask educational leaders to place students at the center of the ethical decision making process.

All of these ethics are complementary to each other and their combination results in a more complete ethic of leadership. These four paradigms: justice, critique, care, and profession are all useful when making decisions in a complex world. Being an ethical leader is complicated, and taking the time to look at all four paradigms allows one to make the best decisions possible for every given situation. As an ethical leader, I was able to lead a preschool project that focused on our low-income students in a manner that was ethical in profession, justice, care, and critique. Because I espouse that I am both a transformational and ethical leader, I selected these as the conceptual frameworks with which to analyze my leadership of this action research project.

Review of Selected Literature on Organizational Culture

Schein (1992) maintains that cultures have basic assumptions that are rooted in early group experiences. Culture is a phenomenon that envelops us all. Leaders should

understand the culture; otherwise it may manage them. The culture of organizations is created, embedded, developed, manipulated, managed, and changed. Schein states that a good understanding of the culture is necessary to fully understand the organization. The culture includes the shared assumptions, core values and beliefs, and shared norms of the organization, and good leaders must understand the culture before changes can be made. To better understand the culture, it is necessary to observe behavior: its norms, language, customs and traditions, standards and values, as well as its published, publicly announced espoused values (Schein, 1992).

Hoy and Hoy (2009) also have written widely about organizational culture, especially school culture. They assert that schools have distinctive cultures; core values and beliefs that provide members with a sense of organizational mission and identity. The organizational climate of a school is represented in the perceptions by stakeholders of the dominant behaviors of organizational participants that reflect these values, beliefs, and norms. Among some (but not all) of the common elements of an organization's culture (O'Reilly, as cited in Hoy & Hoy, 2009) are the following: (a) innovation *vs.* stability: Does an organization value innovation, which can be characterized by the extent to which stakeholders are creative and willing to take risks, or does it value stability, which can be explained as the extent to which activities focus on the status quo rather than change?, (b) attention to detail *vs*. laissez faire: Do stakeholders value attention to detail, that is, the extent to which there is a concern for precision and detail, or are they willing to "give in a little, where appropriate?", (c) outcome *vs.* people orientation: Do organizations possess, as a cultural norm, an outcome orientation, that is, the extent to which it emphasizes results, or does it maintain a people orientation, which seems to be more sensitive to

individuals than outcomes?, and (d) collaboration *vs.* competition: Do stakeholders value a team orientation that emphasizes collaboration, or do they value aggressiveness and competition?

Organizational culture can be explored in different ways. For example, Bolman and Deal (2002) present a four framework approach, which provides distinctive lenses through which an organization's culture can be explored and analyzed. Their approaches include the structural frame, human resource frame, political frame, and symbolic frame. The structural frame emphasizes productivity and provides that classrooms and schools work best when goals and roles are clear and when efforts of individuals and groups are highly coordinated through authority, policies, and rules as well as through more informal strategies.

The human resource frame deals with the people within the organization. Holding people accountable for their responsibilities and setting measurable standards are important for this approach. It highlights the importance of individual needs and motives. It assumes that schools and classrooms, as social systems, work best when needs are satisfied in a caring, trusting work environment. Showing concern for others and providing ample opportunities for participation and shared decision making are among the ways to enlist people's commitment and involvement.

The political frame operates from the perspective that there are limits of authority within an organization, and inevitability, resources are almost always too scarce to fulfill all demands. Goals emerge from bargain and compromise among competing interests, rather than from rational analysis. Conflict becomes an inescapable by-product

of everyday life; however if handled properly, can be a source of constant energy and renewal.

The symbolic frame centers on attention to culture, meaning, belief, and faith. Every school or classroom creates symbols to cultivate commitment, hope, and loyalty. Symbols govern behavior through shared values, informal agreements, and implicit understandings (Bolman & Deal, 2002). Even though organizations are usually stronger in one framework than the other, organizations have all of these frameworks within and should be considered when studying the culture of the organization.

Finally, another way of describing and analyzing school culture has been described by Baldry and Munro, Stoll and Fink, and Sammons, Thomas, and Mortimore (as described in Barnett, O'Mahony, & Matthews, 2006) in terms of other, more concrete, shared values, beliefs, and norms (see Table 1).

Table 1

Attributes of a School Culture

Attribute	Description
Shared Goals	Teachers share a value that places teaching, learning, and students' interests and needs front and center.
Responsibility for Success	Teachers bear collective responsibility for student learning. There is a belief that teachers can and do make a difference. There is a widely held belief that all children can learn.
Collaboration and Teamwork	Teachers share and assist each other as a matter of routine. There is an orientation towards the school as a community that is voluntary, spontaneous, and outcomes oriented.
Continuous Improvement	No matter how effective a school is deemed to be, there is always room for improvement.
Lifelong Learning:	A fundamental assumption is that learning never stops; there's always more to learn and students

	learn best alongside adults who learn.
Risk-taking:	Experimentation, trial and error, action research, and learning through mistakes are valued and seen as essential parts of learning.
Mutual Respect	Diversity is perceived as a strength, and there is freedom for individuals to realize shared goals in different ways.
Openness:	Teachers feel free to speak their mind and voice concerns within the school walls, rather than in the parking lot.
Celebration	Recognition of students and adults is the norm, and teachers often talk about feeling valued.
Professional Leadership	The school leader is firm and purposeful; but uses a transformational and participative approach.
Positive Learning Environment	Teachers value an orderly atmosphere and attractive environment.
Concentration on Teaching and Learning	Teachers focus on learning, maximize learning time, and emphasize achievement.
Purposeful Teaching	Teaching is characterized by efficient organization, clarity of purpose, and structured lessons.
High Expectations	There are high expectations for both students and staff.
Positive Reinforcement	Discipline is clear, fair, and consistent.
Monitoring Progress	Student performance is regularly monitored and school performance regularly evaluated.
Home-School Partnership	Teachers value parental involvement as an important part of student learning.
A Learning Organization	There is job-embedded staff development grounded in student and adult learner needs.

Because of its level of concreteness and explicitness, I decided to employ this model as my primary conceptual framework for analyzing the organizational culture of the Davis school, where the bulk of the interventions occurred in my action research project.

Review of Selected Literature on Change

There are many theorists in the contemporary scholarly literature who have defined models for creating and leading successful change. Change is an important part of organizations as they look to improve and stay up-to-date with 21st century demands. A few theorists that I have studied are Michael Fullan, Richard Chang, Michael Heifitz, and John Kotter. These theorists all devised strategies to create and lead long term

successful change. For the purpose of my change process, I was able to use a synthesis of all of these theorists, using an adapted change model, developed in the unpublished work of my advisor, Thomas Monahan (2003).

Michael Fullan (2001) is an important contributor to theories about change in education. Fullan asserts that an effective change process must begin with a moral purpose. He defines moral purpose as teachers who act with the intention of making a positive difference in the lives of their students. Teacher practices should be changed to meet the individual needs of their students. Fullan describes leading change as "producing the capacity to seek, critically assess, and selectively incorporate new ideas and practices" (Fullan, 2001, p. 44). He advises leaders to build relationships within professional learning communities. Teachers should feel they have a voice in the change process while the leader becomes a "context setter." Fullan (1993) also discusses the importance of change leaders understanding the process of change, creating and sharing new knowledge, as well as coherence making to create a lasting effective change.

Richard Chang (1994) describes a 6-step change model which stresses the importance of clarifying the need for change, defining the result or intended outcomes, producing a plan, implementing the plan, stabilizing the outcome, and assessing the change process. In Chang's model, he claims that a change leader first needs to identify and confirm the need for change by conducting an environmental scan. Thereafter, the results of the proposed change are defined, and the intended outcomes and how they will be evaluated are defined and communicated to stakeholders. Producing an action plan is important to help clearly identify the tasks and responsibilities of everyone involved in the implementation of the change. The plan also includes an identification of what

resources are needed, who or what will be impacted, and what are the emotional factors of the change. Subsequent steps call for the implementation of the plan. Throughout the implementation process, the action plan is monitored, progress communicated, and targets adjusted when needed. Once enacted, the change (outcome) is stabilized, and attempts are made to incorporate the change into the organization's culture. Finally, Chang calls for the assessment of the change process and the identification of ways to encourage further innovation.

Michael Heifetz (1994) discusses a 7-step change cycle which includes: planning the change, setting change goals, initiating the action of change, making connections, rebalancing to accommodate the change, consolidating the learning, and moving to the next change cycle. In the planning stage of the change process, the change leader and selected stakeholders seek to ensure that the change is needed. These core organizational leaders guide and facilitate the change. Setting goals is a key element in the planning process, and these goals should be augmented with clear, measurable objectives that are articulated throughout the organization and to the stakeholders involved. After the planning has taken place and the goals are clearly in place, then the change process begins. Throughout the change process, there is continuing evaluation to ensure that the project is on task and that there is evidence of progress. Making connections as the change process unfolds is important to creating lasting, second order change. The leader of the change process needs to ensure that the people involved in this process stay positive and focused on the goals and objectives at hand. As this occurs, other areas of the organization are rebalanced to accommodate the change. At the end of each cycle of the change process, consolidating the learning needs to take place. This occurs when the

change process is evaluated. Were the goals and objectives achieved? What was learned from the change effort? What new opportunities have surfaced? These questions then lead into the next change cycle.

John Kotter's (1996) 8-step change model discusses the importance of establishing a sense of urgency for change, forming a powerful guiding coalition, creating and communicating the vision to all stakeholders, removing obstacles, creating short term wins, building on change, and finally anchoring the changes into the culture. It is important to create a sense of urgency for the need for change to help motivate followers to get things moving and start the change process. Leading a change often takes strong leadership and a powerful coalition of key stakeholders within the organization. This coalition needs to work as a team to continue to build a sense of urgency and momentum for the change. Creating and communicating a clear vision helps everyone understand why they are being asked to support the change, and it provides for a better understanding of the direction of the change. Removing barriers helps the change process to move along at a quicker and smoother pace. Celebrating short term goals is a way of allowing stakeholders to witness first-hand the positive effects of the change, and this helps to continually motivate them and keep the momentum going. Building on change directs stakeholders to look at what went right and what still needs improving. Finally, the last step of Kotter's change process calls for the anchoring of the change into the culture. This is done by making sure the values of the change show in the day-to-day work and in every aspect of the organization.

All of these theories can be applied to transformational leadership. They all provide direction on how to get participants involved in the planning, implementation,

and evaluation of the change project. For my action research project, I decided to use Monahan's adapted change model, which is simply a synthesis of the theories described above, as the conceptual framework for analyzing my leadership in my action research/change project. Monahan's (2003) adapted 9-step model includes recruiting a coalition of willing stakeholders to assist in assessing organizational needs and confirming the need for the change (an exercise that very often requires an environmental scan), crafting and communicating a vision, building consensus for the change, crafting an action plan for the change, aligning resources, implementing the action plan, generating and communicating short term wins, rebalancing systems, and planning for change over the long term.

In the first step, the change leader identifies and recruits a small coalition of organizational stakeholders who have the power, influence, and willingness to help introduce the change. Together, they conduct a joint diagnosis of the organization, an environmental scan, to assess the need for change and to determine its direction. What works and what does not work? What needs changing and why? Data are collected on issues of importance. As part of the scanning process, the culture and climate of the organization are carefully analyzed. Once the scan has been completed, the change leader should possess a good mental image of the organization and its needs, as well as its culture and climate, and can confirm and defend the need for change. In Step 2, the leader presents to a slightly larger coalition of stakeholders the data from the environmental scan and organizational diagnoses that clearly demonstrate the need for change. The leader proposes the change and its desired results in a way that is both clear and focused. This helps the guiding coalition to better understand the change and why it is necessary.

The purpose of this step is to create a strong sense of moral purpose for the change that will be needed as the leader and the guiding coalition begin to present the change project to all of the organizational stakeholders.

In Step 3, the leader begins to build consensus among all stakeholders by crafting an organizational vision for the change that is both clear and focused; this helps to carefully demonstrate the feasibility and reasonability for the change. The leader then encourages the organizational stakeholders to craft their own personal visions that are consistent with the organizational vision and leads the negotiations to establish a communal shared vision, to which all can commit. This requires that the leader listen very carefully to followers' comments, objections, and suggestions, and it may necessitate compromise on certain aspects of the vision. A shared vision, supported by environmental scanning and diagnostic data that confirm the need for the change, helps to establish a sense of urgency for the change that is then communicated throughout the organization.

In Step 4, an action plan for the change is developed, which includes clear goals, objectives, strategies, required resources, and a timeline for the proposed change. Roles and responsibilities are assigned that hold people accountable for both. A recognition and reward system is also developed. Those who will actually implement the change must know and understand what they are supposed to do, with whom, with what, according to what schedule, and what outcomes they are expected to achieve. Once the plan is in place, it is communicated widely and frequently throughout the organization. This allows everyone in the organization to know what the plan is, who is doing what, when things

will happen, and who is responsible for what outcomes. This further allows everyone to know and understand the importance of the change for all stakeholders.

In Step 5, the leader seeks to ensure that organizational resources are aligned with the action plan, and the structures to support, nurture, and sustain the plan for change have been developed and put in place. As this is done, the need for the change, as well as the vision, goals, and objectives for the change, continue to be communicated throughout the organization. During this step, every opportunity to re-affirm the direction of the change and the primacy of the vision is taken. Staff are empowered and encouraged to engage in risk taking and experimentation in order to advance the goals and objectives of the vision and the plan. Connections among the different individuals, constituencies, and initiatives that exist within the organization are forged, and all the organization's resources are aligned to create synergy for change. Incentives and rewards for those who work hard to promote the vision and plan are created, and structural or other obstacles that can impede progress are identified and neutralized or removed.

In Step 6, the action plan for change is fully implemented and monitored, through formative evaluation and progress audits, to keep the change leader, as well as the stakeholders, focused on the vision and the goals and objectives of the plan. If the formative evaluation or progress audit reveals problems or difficulties, the action plan is adjusted accordingly in response to them.

In Step 7, as the change progresses and successes are realized, the change leader begins to publicly acknowledge and celebrate the short term gains that the change has produced. The leader capitalizes on these gains by actively supporting those committed to the change and converting skeptics and resisters. The reward system that was created as

part of the action plan is implemented, and those who contribute to the successes and short term wins are publicly recognized.

In Step 8, as need dictates, organizational systems, policies, and procedures are re-balanced to ensure goodness of fit with the new organizational vision. Both the vision and the short term gains that have been realized (as well as the people who have contributed to this progress) continue to be communicated widely throughout the organization. Then, as the change continues to progress and the goals and objectives are realized, the leader uses the political and social capital that have been acquired to begin to replace or add new systems, policies, and procedures to ensure that they are consistent with the new organizational vision.

Finally, in Step 9, planning for second order change over the long term continues. Attempts by remaining dissenters, skeptics, and resisters to conclude the change effort are resisted, and stakeholders are reminded that change is not an event; it is a process that continues to move forward. There will always be the need to improve systems, policies, and procedures. In summary, in this the ninth and final step in this cycle of change, change is institutionalized in the organizational culture, and plans for the next change cycle begin.

Summary

These are the conceptual frameworks that undergirded my research. Our PLC adhered to and implemented the best practices in reading readiness in the preschool intervention change project. Also, as I provided the leadership necessary for the implementation of the project, I developed and used a model based on the criteria that were described in Barnett et al. (2006) for analyzing the organizational culture of the

Davis School. Further, using the synthesis model adapted from Chang (1999), Heiftetz (1994), and Kotter (1996) by Monahan (2003), I assessed the extent to which the change process that I employed was effective and successful in helping our low-income preschool children to improve their cognitive literacy skills. Finally, using the models of transformational leadership described by Burns (1978, 2003) and Bass (1985) and the ethical leadership model described by Shapiro and Stefkovitch (2005), I also analyzed my own leadership to determine the alignment of my espoused theory and my theory-in-use. In the methodology section that follows, I discuss how I studied the interventions that were employed in the action research project, as well as how they were implemented and evaluated to improve our preschool low-income students' literacy skills.

Chapter 3

Methodology

Context and Setting of the Study

According to the 2010 census, the By-the-Sea community, first settled in 1693, has a population of 10,795 residents. For individuals who self-identified as mono-racial (only one race), there are 8,501 Whites (79%), 1,153 African Americans (11%), and 332 Asians (3%). In addition, 326 individuals (3%) identified themselves as multi-racial, and 1,024 (9%) identified as Hispanic or Latino (any race).

According to data accessed from the 2005-09 American Community Survey, the median household income in By-the-Sea community (2009 inflation-adjusted) is $49,620, with a per capita income of $27,555. Approximately 9% of families and 11% of the individuals in the By-the-Sea community live below the poverty line. Approximately 88% of the community's residents are identified as having achieved a high school diploma or higher, and 21.7% hold a bachelor's degree or higher. There are 1,607 individuals (15.2%) in the community who speak a language other than English at home.

By-the-Sea School District is a suburban community with a high rate of seasonal transients, which contributes significantly to its 50% free and reduced price lunch student population. The New Age, Davis, and Rocky Road elementary schools have economically disadvantaged populations of 49%, 53%, and 44% respectively.

The school district has a diverse student population, which includes approximately 1,250 students (pre-kindergarten through eighth grade) within its three

schools. There are 89 classroom teachers with a student-teacher ratio of approximately 13.5:1. The Rocky Road School is a K-8 building, which houses approximately 725 students, of which 63% are White, 19% African American, 11% Hispanic, 3% Asian, and 4% other. The Davis School offers preK-6, with approximately 425 students, of which 62% are White, 19% African American, 13% Hispanic, 1% Asian, and 5% other. The third school is the New Age School, which houses six pre-kindergarten classes with approximately 100 students, of which 68% are White, 18% African American, and 14% are Hispanic. This action research project focused on the kindergarten and preschool staff and students within the New Age and Davis School elementary schools (see *Limitations of the Research Project and Study* at the conclusion of this chapter).

This community is unique in its diversity and socioeconomic backgrounds in comparison to surrounding towns. By-The-Sea School District is a sending district to the Moresville Regional School. Two nearby communities, which also send students to this high school, are the towns of Lionheart and Newton, both of which are significantly less racially/ethnically diverse and more economically affluent (again, this is due in large part to the substantial number of seasonal migrants who reside in By-the-Sea). Both of these communities have proportionately higher percentages of Whites (79% in By-the-Sea, as compared to 93% and 87% respectively for Lionheart and Newton), lower percentages of African Americans (11% as compared to 4% and 3% respectively), and lower percentages of Hispanics/Latinos (9% as compared to 3% and 8% respectively.) By-the-Sea also has a lower median household income than either of its two geographic neighbors ($49, 620 as compared to $60,000 and $56, 875 respectively) and a higher

percentage of families living in poverty (11% as compared with 4% for both Lionheart and Newton).

Mode of Inquiry

John Dewey (as cited in Herr & Anderson, 2005) and Stephen Covey (2008) have reported that action research is an optimal way of studying education and its practices because it allows the practitioner to examine authentic everyday practice within a specific location for the purpose of implementing a change within an organization (Ferrance, 2000; Hinchey, 2008). This study adheres to the action research paradigm described as participatory action research, which has been operationally defined as research that is designed by an organization's members for the purpose of making recommendations for changing practices (Bogdan & Biklen, 2007).

I chose a mixed methods approach to answer the research questions listed in Chapter 1. This study lends itself to observations and interviews, as well as surveys, which are central to my research. Bogdan and Biklen (2007) clarify this point:

> The theoretical perspective that underlies qualitative research takes a different view. Reality is constructed by people as they go about living their daily lives. People can be active in shaping and changing the 'real world.' They can change and they can affect others. (p. 244)

The cyclical nature of action research fits well with the qualitative research paradigm, since qualitative research methods are flexible and are able to be immediately responsive to the phenomenon that is being studied (Bogdan & Biklen, 2007; Glesne, 2006; Hinchey, 2008). In this study I utilized semi-structured personal interviews, focus group interviews, and observations to gather data. In the early cycles of the study, these techniques identified what was currently being done in the classroom, considered other

teaching strategies, and determined which interventions should be put in to place to help build the skill base of our low-income students.

In this study, I was an active participant, and I studied the current practices within the target schools as they pertained to the preschool education of our low-income students. In this role of participant-researcher, I led the process in which a plan was developed to help our teachers initiate new interventions in their daily classroom routine. Additionally, my study adhered to the action research paradigm in that I observed the current preschool program, planned an action, took action, and then reflected on the action and what else needed to be done to answer my research questions (Glesne, 2006).

I also used quantitative data collection techniques within this project, including test scores and survey/rating scales to compile data and allow for quantitative analysis. I compared the academic performances, as measured by different commercially and locally produced tests, of students who participated in the interventions and those who did not participate. In an attempt to determine the effects of the interventions on closing the achievement gap in the district, these comparisons were extended to include low-income students who participated in the interventions versus their more advantaged peers who did not participate. My leadership and organizational culture were also analyzed quantitatively.

Participants

New Age School

In its early stage, the participants in this study included students, teachers, and parents at the New Age School. The student participants were 4-year-old preschoolers, as well as their parents, from different cultural and socioeconomic backgrounds. Six

teachers were invited to participate, and consent forms were signed by all participants to document their intention and agreement to participate in the study.

In the New Age School, the classrooms were set up as follows: one was self-contained, one was an inclusion class, and four were regular education preschool classrooms. There were approximately 18 students in each regular education classroom and the inclusion classroom, and approximately 10 students in the self-contained classroom.

The administration included a principal and curriculum director. The principal of the New Age School has held the position for 2 years, but she has many more years of administrative experience. The curriculum director has held the position for 3 years, and she plays a key role in what is currently being done within the preschool classrooms. Six teachers were included in the PLC for the project. In Table 2, these participants are identified with pseudonyms, their ages, and their years of teaching experience.

Table 2

Participating Teachers at New Age School

Jennifer	Suzanne	Lisa
• 28 years old • 5 years teaching	• 20-24 years old • 2 years teaching	• 25-30 years old • 5 years teaching
Louann	**Christie**	**Carrie**
• 55-60 years old • 34 years teaching	• 25-30 years old • 2 years teaching	• 40-45 years old • 20 years teaching

Davis School

I also included the kindergarten classroom students, three kindergarten teachers within the Davis School, and parents of participating students in this action research project. The students were 5-year-old kindergarten students from different cultures and socioeconomic backgrounds. Betty was a teacher volunteer from Davis School who volunteered at the reading night and participated in our PLC. Miley, Lillian, and Diane are the kindergarten teachers at the Davis School. Each kindergarten class has about 20 students enrolled (see Table 3).

Table 3

Participating Teachers at Davis School

Miley	Lillian	Diane	Betty
• 31 years old • 6 years teaching	• 45 years old • 20 years teaching	• 41 years old • 20 years teaching	• 50 years old • 10 years teaching

Data Collection Procedures

Data collection procedures included teacher interviews, classroom observations, focus group interviews, parent surveys, and teacher surveys and rating scales. Student test scores were also collected and analyzed.

The purpose of the initial teacher interviews was to determine specifically what was currently being done in the classroom and to provide the necessary information about what the teachers needed in order to implement new interventions. The purpose of the classroom observations was to document what was actually being done in the classroom, and the purpose of the focus group interviews was to analyze and discuss the books and

other research on best practices and professional learning communities that we had read and to seek teacher participants' input regarding their ideas on interventions that they determined might work for our low-income students. The focus group interviews also provided valuable insights for the cycles of my action research project. Subsequent teacher interviews helped to provide important and meaningful feedback about the culture of the district and schools, as well as my leadership.

Surveys were used for a variety of purposes and ends. A parent survey was used to determine their perceptions of the impact of the interventions and to get parental feedback on their child's progress towards academic success. I also used a survey to study the organizational culture, which helped to validate the change project. Finally, to study my leadership, in addition to my personal reflective journal, I also used a commercially produced survey, which was administered to the teachers who worked with me on the project.

Test scores provided relevant data to assess the impact of the interventions on student performance. These data were also used to compare students who participated in the interventions with other students who did not participate. Finally, I included data from a personal reflective journal, which provided important insights on the interventions, my perceptions of the organizational culture, my assessment of the change process, and the effectiveness of my leadership ability.

Instrumentation

I used many different instruments during my data collection. In the very beginning of my action research project, I used self-constructed classroom observation checklists and semi-structured interview guides to conduct personal interviews with

teachers regarding classroom practices. As noted above, these instruments yielded useful data for structuring the interventions. Then, in order to assess the impact of the action research project interventions on the performance of the students participating in the project, I used a variety of commercially produced standardized measures, including the Phonological Awareness Skills Test (PAST), an instrument that is designed to measure students' ability on five phonemic awareness tasks: segmentation, isolation, deletion, substitution, and blending. I also used the Brigance Test, an instrument whose purpose is to assess reading decoding, reading comprehension, writing, listening comprehension, and math. Additionally, I used some locally developed benchmark assessment instruments to assess selected literacy tasks. The PAST and Brigance were administered on a pre/post basis, while the benchmark assessments were administered only once, in the late winter 2010. Finally, I used some surveys and rating scales that I constructed in order to gather important assessment data from parents of participating students regarding their perceptions of their children's literacy skill acquisition.

In order to assess the organizational culture of the district and schools in which the project was implemented, I used a non-commercial survey instrument that was adapted from the work of Baldry and Munro, Stoll and Fink, and Sammons et al. (as described in Barnett et al., 2006). Interviews, using a self-constructed interview guide, and a self-constructed survey were also conducted to determine teacher perceptions of their school cultures.

In order to assess my leadership of the implementation of the action research project, I used a commercially produced instrument, the *Multifactor Leadership Questionnaire* (MLQ), an instrument designed specifically for the acquisition of data

regarding transformational and transactional leadership. My personal reflective journal was also used for collecting data about my own leadership, particularly regarding the ethics of my leadership, as articulated in the model offered by Shapiro and Stefkovich (2005). My journal also proved to be an invaluable tool in collecting data regarding the change process, which enveloped the entire action research project.

Data Analysis

Consistent with data collection procedures, strategies, and instruments described above, the data analyses were also implemented using a mixed methods approach. Themes, patterns, as well as relationships were detected from the transcripts of observations, focus groups and personal interviews, surveys, and personal journal entries. I interpreted my emergent themes through coding. Based on those interpretations, I implemented an inferential process that allowed for the planning and implementation of interventions to help the low-income preschool students succeed in the classroom. The themes, patterns, and relationships determined the next action that was applied in this action research study.

To give added credibility to the study, I determined the codes, themes, and patterns found in the data following the work of Anfara, Brown, and Mangione (2002). This provided the details for the study's rigor, which is needed to validate its findings (Anfara et al., 2002). In addition, triangulation of data from different methods of collection provided validity to the study's findings (Anfara et al., 2002; Bogdan & Biklen, 2007; Glesne, 2006; Hinchey, 2008). Using an analytic inductive approach to qualitative analysis (Schloss & Smith, 1999), the qualitative data from the interviews, observations, and focus groups were coded and analyzed. Furthermore, member checking

was applied for the credibility of data from the interviews and focus groups. In Cycle 4, I compared PAST and Brigance test scores to see if there was any improvement between low-income students who received the interventions and a similarly matched group of low-income students who did not. I also compared the test scores of low-income students who participated in the project and non-low-income students who did not participate. Also, as discussed above, I kept a personal reflective journal about my leadership abilities and the actions I demonstrated as a leader. This journal provided personal data on my leadership throughout the whole dissertation process, and the MLQ was used to analyze how others viewed my leadership capabilities. These surveys were analyzed using the descriptive statistics features of the software program Predictive Analytic Software (PASW). This tool helped to disaggregate the data, organize it into smaller pieces of information, and report the information statistically.

In Table 4, the linkage among the study questions, the data sources, the data collection instruments that were used, and techniques for analyzing the resulting data are illustrated.

Table 4

Linkage among Research Questions, Data Sources, Project and Study Instrumentation, and Data Analysis

Research Question #1	Data Source	Instrument	Data Analysis
How successful have the project interventions been in …			
improving the literacy skills of low-income kindergarten children in the By-the-Sea School District?	Low-income kindergarten children participating and not participating in the research project	Phonological Awareness Skills Test (PAST)	Pre-post (pre-K/K) comparative analysis; data reported quantitatively
		Brigance Test	Pre-post (pre-K/K) comparative analysis; data reported quantitatively
		Benchmark ratings of preschool literacy knowledge and skills	Benchmark (K) data reported quantitatively
	Parents of low-income preschool children participating in the research project	Skills acquisition survey questionnaire	Data reported quantitatively
closing the achievement gap in literacy between low-income preschool children and non-low-income preschool children in the By-the-Sea School District?	Low-income kindergarten children participating in the research project, and non- low-income kindergarten children <u>not</u> participating in the research project	Phonological Awareness Skills Test (PAST)	Post (K) test score and pre/post (pre-K and K) means analysis; data reported quantitatively
		Brigance Test	Post (K) test score and pre/post (pre-K and K) means analysis; data reported quantitatively
		Benchmark assessments of preschool literacy knowledge and skills	Benchmark post (K) data reported quantitatively

Table 4 (Continued)

Research Question #2	Data Source	Instrument	Data Analysis
To what extent did the following contribute to/influence the implementation of the kindergarten interventions research project?			
(a) my transformational leadership?	Project investigator	Personal reflective journal	Journal entries compiled, coded, and written qualitatively (supported by coded quotes)
	Staff (participating teachers)	Interviews	Data reported qualitatively and/or quantitatively
		(MLQ, Form X)	Data reported quantitatively and qualitatively
(b) my ethical leadership?	Project investigator	Personal reflective journal	Journal entries compiled, coded, and written qualitatively (supported by coded quotes)
	Staff (participating teachers)	Interviews	Data reported qualitatively
		Surveys or rating scales (MLQ Form X)	Data reported quantitatively
(c) my understanding of the culture of the Davis School?	Principal investigator	Personal reflective journal (supported by observations)	Journal entries and observations, as appropriate) compiled, coded, and written qualitatively (supported by coded quotes)
	Staff (participating teachers)	Survey questionnaire	Data reported quantitatively
		Interviews	Data reported qualitatively
(d) my understanding and leadership of the change process?	Project investigator	Personal reflective journal	Journal entries compiled, coded, and written qualitatively (supported by coded quotes)
			Analytic induction used in qualitative analysis throughout

Limitations of the Research Project and Study

There are several limitations to both the action research project as well as the actions that were implemented during the study as components of this change project. First, because of my role as a teacher (and participant-researcher), as opposed to one as administrator in the By-the-Sea School District, I was without positional power (French & Raven, 1960). Therefore, I was limited in my ability to both require and lead the action research project in school settings other than my own. Moreover, I possessed neither the authority nor the legitimate power to make substantive structural decisions, changes, or demands upon the school staff without prior administrative approval. Because of this, and thus to avoid potential later difficulties, I decided to limit the implementation of the project's activities to only the New Age and Davis school buildings. However, in so doing, I felt confident that I could exercise the appropriate and necessary levels of leadership without the potential for problems for which I had neither the power nor the authority to control. Second, given the nature of the research study within this action research project, I was limited in my access to both pre-kindergarten and kindergarten students; that is, I included only those students to whom I had access, which precluded the opportunity for the random selection or assignment of project participants. Therefore, because of the non-random nature of this study, I am able to infer no more than very limited generalizability to my research findings. Third, there are multiple variables that contribute to student performance. In my research, I made no attempt to isolate, control, or study the effects of these many variables. I sought only to explore the effects of two variables, differentiated instruction and technology. This undoubtedly limited my ability to infer generalizable conclusions about the impact of other variables on overall student

performance. Finally, there was only a limited time period for this project, and the interventions in Cycle 4 may have produced different effects given a longer implementation period.

Chapter 4

Findings and Discussion

When I began this research project, I crafted some questions that were intended to guide my study. These questions inquired about how successful the project interventions had been in improving the literacy skills of low-income kindergarten children in the By-the-Sea School District, and how successful the interventions had been in closing the achievement gap in literacy between low-income kindergarten children and non-low-income kindergarten children in the district. I also inquired about the extent to which my leadership and my understanding of organizational culture and the process of change contributed to and/or influenced the implementation of the interventions in the research project. These questions are addressed in the following sections.

Description of the Action Research Project Cycles

What was I going to do?

In the past, preschool had always been a half-day program in the By-the-Sea district, so when the decision to implement full-day programming was made, it was new to everyone. As a third grade teacher, I was already witnessing the importance of preschool and kindergarten experiences on the children in my own classroom, and I was beginning to develop a keen sense of the effects of those experiences on students, especially low-income students. After several conversations with grade level colleagues and the district superintendent, I began to see not only the importance of research in this area, but the direct relevance to what I was doing as well. At the time, I was not exactly

sure what my specific dissertation topic would be; I just knew it was going to deal with the preschool and kindergarten settings. I also knew that whatever project I ultimately decided upon was going to represent a change, and I knew from my leadership studies that change is often difficult and messy. But, I also had a plan – a plan for introducing and leading the change – which I discuss later in this chapter.

As a third grade teacher, I do not have a deep understanding of the daily routines of the preschool classroom, so cycle 1 of my project began with observations of preschool settings and interviews with the preschool teachers. Granted permission by the district superintendent, I was able to observe every preschool teacher in the New Age and Davis schools for an entire day. This gave me an opportunity to see first-hand what was actually being done in those classrooms. I observed the set-up for the day, I saw how teachers organized their work as well as what and how they taught, and I observed the activities they used to reinforce skills and the behavior management techniques they employed. I was also able to see teacher-aide interactions, teacher-student interactions, student-aide interactions, and student-student interactions. I also got glimpses of teacher-teacher interactions and even some parent-teacher interactions. This gave me a great deal of insight into what was currently being done in the classrooms. After the observations, I was able to conduct follow-up interviews with nearly all the teachers that helped me clarify issues and also get more information on certain topics. These interviews also gave me the opportunity to discuss issues that teachers had in the classroom and learn more about the resources they felt they needed for all students to learn, especially the low-income students who seemed to struggle more than other children.

Through these observations and interviews, I learned that teachers felt that they needed specific interventions to help their low-income students succeed in the classroom. Our district data had also shown for many years that our low-income students were not succeeding on the grade level state tests, and I could see that a gap was already beginning to develop between low-income and other students from my own experiences in my third grade classroom. Through these observations, interviews, and school district test data, I began to hone my research topic, and I began to focus on low-income preschool students and how to help close the achievement gap between them and their more affluent classmates.

"How" to accomplish this goal became the question?

At that time, I organized a small professional learning community (PLC) among the preschool teachers. Jennifer, Suzanne, Lisa, Louann, Christie, Carrie, and Betty from the New Age school were the original PLC members. I met with these teachers after school and during their prep times to discuss the data that I was compiling from my interviews, observations, and state standardized tests that were available. During these meetings, I was able to share my vision of what I thought we needed to accomplish. We all agreed that something needed to be done to help our low-income students succeed in the classroom. Together, we also agreed to read the book, *Inequalities at the Starting Gate: Social Background Differences in Achievement as Children Begin School* (Lee & Burkam, 2002). Then, we agreed to meet as a group and discuss what we learned from the book. According to Lee and Burkam, there are many differences between low-income students and their more advantaged peers. For example, 36% of low-income students visit the library on a regular basis, compared to 67% of their more advantaged peers. Low-

income students watch an average of 18 hours of TV per week, but their more advantaged peers watch TV an average of only 11 hours per week. Low-income students, on average, own 38 books, whereas their more advantaged peers own 108 books. In low-income family homes, 63% of parents read to their children 3-6 times a week, while 94% of parents of their more advantaged peers read to them 3-6 times a week. Through our discussions, we began to better understand the lack of exposure to print materials among our low-income students, and as a result, we decided to help them build their literacy skills because we believed that was one of the most important skills they needed to develop at that point in their educational careers. This decision led our PLC into Cycle 2, in which we established our Parent Reading Night program.

At the same time, my dissertation research project was becoming clearer in my own mind. I wanted to conduct research on ways to help preschool children, especially low-income children, to improve their literacy skills. I also wanted to see if there were ways in which we could help to close the achievement gap between low-income children and their more affluent peers.

Okay, now what?

Our PLC believed that the Parent Reading Night program could act as a catalyst or stimulus for students to read with their parents and take a book home with them after the event to add to their library. We knew this based on our understanding of the research by McGhee and Richgels (1996). We further believed that it might keep them from watching as much TV for at least the time they were in the Reading Night program. We understood that we were not talking about only a single event. For it to serve the goals and objectives that we wanted to achieve, we knew that the reading nights had to be part

of a sustained effort. So, we initially planned to run the program for at least eight weeks. We discussed how best to organize the program, and we decided to structure the reading night events according to the following sequence. First, for each reading night, some type of craft (as in arts and crafts) would be available for the students when they arrived, and the night would begin with a story reading (we planned that the story would somehow involve and relate to the craft). Then, the craft that went along with the story would be introduced, followed by snack time, and then a final story reading that elaborated on the craft would be read before they left for the night. As the children left the event, they would each receive a book and would be encouraged to read it when they got home. This would give them exposure to books, create a fun learning environment, and, hopefully, increase their literacy knowledge and skills (McGhee & Richgels, 1996). We discussed who would be in charge of what and how we should get funding for the event. Lisa took the lead role on the advertisement process, and we all helped with the fundraising.

As our PLC discussions about the Parent Reading Night program continued, I visited with the district superintendent, the curriculum director, and the principals of the New Age and Davis schools, the two schools that prepared preschool students, to obtain the necessary approvals to proceed with our plans for the reading nights. Everyone was very excited about the idea and offered to help in any way they could. This was when the logistics for the program were planned. Which building would we use, how many nights would it run, and for how long? We thought it would be best to hold the reading nights at the New Age School since that was where most of the preschool classes were held. We further confirmed that we would convene reading nights every Tuesday from 6:00 p.m. to 6:50 p.m. for an initial 8-week period.

Because we knew that we needed to secure the resources necessary to launch this program, our PLC decided to hold a fundraiser to support the program. After many ideas were discussed and exchanged, I was put in contact with the manager at our local McDonald's, and the store manager worked with us on a plan that would help us raise money. McDonald's would allocate a night from 4:00-7:00 p.m. during which 10% of the sales would be donated to the school. They also gave us $1.50 for every dozen cookies sold during that time period. My district raised over $1,000 through that fundraiser. This, combined with some unexpected and generous donations of money, foodstuffs, and crafts, helped to make our plan a reality. Flyers were sent home by the preschool teachers to publicize the Reading Night Program, and a bulletin board was set up at the New Age school to publicize the weekly themes.

Ready or not….

After all of the planning, discussions, and gathering of resources, it was time to start the Parent Reading Night Program. Due to understandable equity and ethical issues, all students (not just those who were low-income) were included in the reading nights, so there was a mix of low-income and non-low-income students in attendance. Betty and I attended all of the reading nights and were the key planners of the stories and activities. Louann and Jennifer also volunteered their time and attended as many of the nights as they could. Although we had 20 families (students and parents) attend, nine of which were low-income, we were disappointed that we had not attracted greater numbers. Nevertheless, we were encouraged by the positive feedback we got from parents who were in attendance. Some sample responses from a survey conducted at the end of the program follow:

Q: Do you feel the reading night made your child more interested in reading?

A: "Absolutely! The paper handout books were great. My son would come right home and read them by himself."

A: "Yes, both children asked to go to the program each week and would request a story at bed time."

Q: What was your favorite part of the reading nights?

A: "I enjoyed the different stories and themes."

Q: What part do you think your child liked the best?

A: "The take home books"

Q: What do you suggest we do differently if we hold reading nights in the future?

A: "I thought the program was wonderful. Maybe more advertising at the older grades - my second grader loved the program - she even wanted to be a guest reader – possibly inviting the older children would encourage participation."

Q: Do you feel the reading nights were beneficial to your child? If so, how? If not, why not?

A: "I'm sure! Because he did something different every Tuesday, which is better than watching TV or fighting with his brother."

A: "Yes, he loves listening to people read stories and every Tuesday when we got home he couldn't wait for me to read the take-home book to him."

These comments were very positive. Even though we wished more families had attended, we knew that the parents who did attend were happy with the program. We were able to expose their children to literature and, at the same time, teach the parents about how they could read a book and discuss what they read with their children (a critical capacity-building skill). The parents loved the idea of the take-home books, which allowed them to read to their children at home. This feedback led us to believe that this was quality time spent with the students and their families. These nights became a part of

the culture of the school as the preschool teachers expanded on them and continued them throughout the next school year.

That was good, but what else can we do...?

Cycle 3 was consumed with summer planning about how the PLC could capitalize on the modest successes we experienced with the Parent Reading Night Program. During this time, we were able to review the feedback from the preschool reading nights and decide on our next action. Also during this cycle, we read *Other People's Children* by Lisa Delpit (2006), which gave us insights about diversity and dealing with diverse populations in the classroom. At this point, Lillian, Diane, and Miley, who were the kindergarten teachers at the Davis school, joined the PLC. As our PLC discussions continued (and as my dissertation research plan began to crystallize and take a definite form), we decided that, while the New Age teachers would continue their work with the preschool students and their parents, I would focus my immediate work on the kindergarten classes and remain with the same students who had been involved with the program since the beginning of the project as they moved from pre-kindergarten to kindergarten. As the PLC continued to meet, we analyzed all of the data from the students' pre-k PAST scores, readings from our own PLC book club, and information and data about best practices that I had obtained from the book *Best Practices in Literacy Instruction* (Gambrell, Marrow, & Pressley, 2007). After much discussion, our PLC adopted the Gambrell et al. model as our guide to literacy interventions. It included the following:

1. Create a classroom culture that fosters literacy motivation.
2. Teach reading for authentic meaning-making literacy experiences.

3. Provide students with scaffolded instruction in phonemic awareness, phonics, vocabulary, fluency, and comprehension to promote independent reading.
4. Give students plenty of time to read in class.
5. Provide children with high quality literature across a wide range of genres.
6. Use multiple texts to link and expand vocabulary and concepts.
7. Build a whole-class community that emphasizes important concepts and build upon prior knowledge.
8. Balance teacher-led and student-led discussions of texts.
9. Use technologies to link and expand concepts.
10. Use a variety of assessment techniques to inform [differentiated] instruction. (Gambrell, 2007, pp. 52-53)

The adoption of this model helped us decide on our next interventions. As we reviewed the best practices in Gambrell et al. (2007), we discussed which best practices would fit in with the direction our district was heading. Our district was currently promoting technology in the classroom as well as the need for differentiated instruction. We decided on technology in the classroom and differentiated instruction for our specific interventions, and our plan was to introduce technology in one classroom and differentiated instruction in another. We also decided to keep one of the kindergarten classes as a control group so we would be able to make valid comparisons at the end of the project. During this meeting, we talked about how the differentiated instruction should work. We analyzed the PAST data and identified skills with which students moving up to kindergarten were struggling. We decided we would focus on selected skills within a small group setting (e.g., final sounds, syllables, and beginning sounds).

We organized activities to help cover these skills. Most of the activities came from the book *Sounds in Action* (Zgonc, 2000). Miley was also given the flexibility to expand on this as she determined during the project based on the specific needs of her students. We also discussed technology. A grant was written to the local Foundation for Education to fund the technology needed for the kindergarten classroom, and it was successful. With the grant money, Diane's class was able to purchase a digital camera with video recorder, two netbooks, a smart board, and a microphone. The tools were used for the following:

- Digital camera – to be used for alphabet/phonemic reinforcement. Take pictures of objects in and around the classroom. Create several class books including: A Class Alphabet Book, Welcome to Our Classroom, Environmental Print Signs, etc. Take photos of classroom events for Writer's Workshop/Student Journaling.
- Video Recorder – to make videos: illustrate vocabulary words, plant growth, community, to use as an assessment tool, etc.
- Netbooks – to be used to interact with teachers' web pages and to explore engaging websites, use interactive stationary to type letters, words, simple sentences, and finally stories.
- SmartBoard – to be used for interactive writing/reading activities to promote skills and fluency.
- Microphone – to be used to record podcasts of reading, singing, interviews, and more.

The teachers were trained in differentiated instruction and technology during district in-services, so both were secure enough with their knowledge of these topics to be

a part of the project. During this cycle, our PLC read and discussed *Leader in Me* by Stephen Covey (2002). This book gave us insights on data books and using data to inform instruction. It also reinforced the importance of differentiated instruction and teaching to the individual child's needs.

Starting off with a BANG…

In September 2010, cycle 4 was up and running and the interventions were prepared for full implementation. All the teachers understood their roles and responsibilities in the project and what they needed to do in their classrooms. During Back to School Night, the project was presented to parents in the participating kindergarten classrooms, and the teachers received positive feedback for what was being proposed. I was able to observe the interventions in action, and I was pleased at what I saw in both classrooms. I also assisted in the technology room when I could on Wednesdays from 10:15-10:45 a.m. Our PLC meetings were set up during lunch and after school to discuss progress and what still needed to be done to make this project successful.

Now it is time for results….

After the interventions were in place for five months, it was time to assess progress. At this time, the PAST test, the Brigance test, and the benchmark assessments were administered. The tests were administered individually to each student, so the teacher could help them mark their responses and/or the teacher could mark their responses for them. These tests were used to measure the performances of the students in the three classrooms and to ascertain if the interventions had been successful. (By this time, I had firmly decided on what my dissertation research questions would be.) The

data that we obtained from these testing exercises would be used to compare the performances of the participants and non-participants as well as the amount of growth achieved for both the participants and non-participants. It would also be used to determine if there was any progress in closing the achievement gap between low-income students and their more advantaged peers.

In the following sections, I present and discuss the analyses that I performed with the test data that were available. Thereafter, I discuss how I incorporated my analysis of the school's organizational culture into the action research (change) project, and how my understanding of culture and change influenced my leadership of the project.

Action Research Kindergarten Intervention Project

When analyzing the data, I focused on both the performances and growth that students demonstrated on the PAST, Brigance, and benchmark assessments. The students were administered the PAST and the Brigance at the end of preschool in June 2010 and then again eight months later at the end of February 2011. Their test scores were used to analyze their performances and to compare the amount of growth that was achieved among the students who participated and did not participate in the project. I was also able to look at the overall scores of the benchmark assessments that were administered at about the same time. Since the benchmark assessments were only administered once, no pre/post comparisons could be made, and hence no determination of growth could be observed. I was, however, able to analyze the data in many different ways using appropriate descriptive and non-parametric techniques provided within the Predictive Analytic Software (PASW) program. The data were analyzed using the mean scores of

the assessments as well as the mean of the amount of growth the students achieved on the PAST and Brigance assessments.

The PAST and Brigance are assessments that are commercially manufactured, and the benchmark assessment was developed by the kindergarten teachers and adheres to the New Jersey Core Content Curriculum Standards and the prescribed curriculum within the district and Davis School. These tests all helped to assess the reading knowledge, skills, and abilities of the students at the Davis School. The skills that were assessed on the PAST assessment included concept of spoken word, rhyme recognition, rhyme production, syllable blending, syllable segmentation, syllable deletion, phoneme isolation-initial sound, and phoneme isolation-final sound. The skills that the Brigance test assessed included reading upper case letters, reading lower case letters, and syntax/fluency. The benchmark assessment focused on identifying letters, identifying sounds, initial sounds, rhyme recognition, rhyme production, site word recognition, writes letters-upper case, writes letters-lower case, and uses letter sounds to make words.

From my data analysis, I wanted to see a number of different things. First, I wanted to determine the growth in literacy knowledge and skills between pre-kindergarten and kindergarten, regardless of whether students were in my action research project or not. This would give me insights into the growth, or lack thereof, that I might see when I looked more deeply into the data.

Next, I disaggregated the data so I could analyze the performances of the kindergarten students on the basis of whether they were participants or non-participants, low-income or non-low-income, and whether they had participated in the technology intervention or the differentiated instruction intervention. However, by looking at these

disaggregated data for only the kindergarten scores, I really could not ascertain any degree of growth, so I further disaggregated the data to look at pre/post gains (or losses) for each of the groups (i.e., participants and non-participants, low-income and non-low-income, and technology intervention and the differentiated instruction intervention).

Finally, in order to get at least some indication as to whether this action research project had any impact on closing the achievement gap between low-income and non-low-income students, I further disaggregated the data to compare the low-income participants and non-low-income non-participants.

Thus, I arrived at the following comparisons for each of my measurement devices: the PAST, Brigance, and (as appropriate) the benchmarks.

- Pre/post comparisons of pre-kindergarten vs. kindergarten
- Post test only comparisons of participants vs. non-participants
- Post test only comparisons of low-income participants vs. low-income non-participants
- Post test only comparisons of participants who received the technology intervention vs. the differentiated instruction intervention. I also included those non-participants in the third class (the control group) who received no intervention

Upon disaggregating the data further, I made the following comparisons:

- Pre/post gains (or losses) for low-income participants vs. low-income non-participants
- For participants only, pre/post gains (or losses) among those who received the technology intervention vs. the differentiated instruction intervention

- For low-income participants only, pre/post gains (or losses) among those who received the technology intervention vs. the differentiated instruction intervention
- For non-low-income participants only, pre/post gains (or losses) among those who received the technology intervention vs. the differentiated instruction intervention

Finally, to examine the achievement gap issue, I made the following comparisons:

- Post test only comparisons of low-income project participants vs. non-low-income non-participants
- Pre/post gains or losses of low-income project participants vs. non-low-income non-participants.

These comparisons, my analyses, and my interpretations of the data included in the tables below are presented in the next section.

Findings

The data in Table 5 represent the performances of all pre-kindergarten and kindergarten students for whom pre/post data were available, whether they participated in the project or not, and whether they were low-income or not. These data provide insights into whether there was any empirically observable growth as students made the transition from preschool to kindergarten. Certainly, there are many variables that might explain the pre/post test score differences, but, if increases are noted, it is quite possible that the intervention may have been at least a contributing variable.

Table 5

Pre/Post Mean Scores - PAST and Brigance Tests

Project Participants Prekindergarten, 2010 and Kindergarten, 2011

Test	*N*	Prekindergarten Mean (Pretest)	Kindergarten Mean (Post Test)	Diff.
PAST				
Concept of Spoken Word	36	4.06	4.31	0.28
Rhyme Recognition	37	5.05	5.70	0.65*
Rhyme Production	37	3.22	4.38	1.16**
Syllable Blending	37	4.30	5.41	1.11**
Syllable Segmentation	37	3.41	5.43	2.02**
Syllable Deletion	37	2.27	4.81	2.54**
Phoneme Isolation – Initial Sound	37	2.92	5.19	2.27**
Phoneme Isolation – Final Sound	37	1.00	3.49	2.49**
Brigance				
Reads Upper Case letters	34	23.38	24.79	1.41*
Reads Lower Case letters	37	23.35	24.43	1.08*
Syntax/Fluency	37	1.59	1.95	0.36**

Note. Significance testing performed with Related Samples Wilcoxon Signed Ranks Test *$p \leq .05$ **$p \leq .01$

As the data in Table 5 demonstrate, there were mean pre/post increases in every literacy item cluster on the PAST and Brigance assessments that were administered to preschool students in 2010 and then re-administered when they reached kindergarten in 2011. In fact, in every cluster of the PAST test except one (i.e., concept of spoken word), the mean increases that were observed between pre-kindergarten and kindergarten were statistically significant at at least the $p \leq .05$ level. Some clusters showed greater mean

increases than others. The greatest increases were observed in syllable segmentation, syllable deletion, phoneme isolation-initial sound, and phoneme isolation-final sound. For the PAST, the increase in the total mean score clearly demonstrated significant growth from prekindergarten to kindergarten. The data also suggest that it is possible that the interventions (in addition to simple maturation) may have, at a minimum, influenced or contributed to these gains.

Table 6

PAST, Brigance, and Benchmark Post Test Mean Scores - Kindergarten, 2011

Project Participants and Non-Participants

Test	Project Participants		Non-Participants		Diff.
	N	Mean	*N*	Mean	
PAST					
Concept of Spoken Word	24	4.38	12	4.17	0.21
Rhyme Recognition	24	5.71	13	5.69	0.02
Rhyme Production	24	4.12	13	4.85	-0.73
Syllable Blending	24	5.21	13	5.77	-0.56
Syllable Segmentation	24	5.29	13	5.69	-0.40
Syllable Deletion	24	5.08	13	4.31	0.77
Phoneme Isolation – Initial Sound	24	5.29	13	5.00	0.29
Phoneme Isolation – Final Sound	24	3.75	13	3.00	0.75
Brigance					
Reads Uppercase Letters	24	25.12	13	24.46	0.66
Reads Lowercase Letters	24	24.46	13	24.38	0.08
Syntax/Fluency	24	1.92	13	2.00	-0.08
Benchmark	N		N		
Identify Letters	24	13.17	12	12.67	0.50
Identify Sounds	24	6.79	12	7.00	0.21
Initial Sounds	24	1.88	12	1.92	-0.04
Site Word Recognition	24	10.04	12	9.75	0.29

Writes Letters - Uppercase	24	6.33	12	6.17	0.16
Writes Letters - Lowercase	24	5.79	12	6.25	-0.46
Uses Letter Sounds to Make Words	24	1.62	12	2.08	-0.46

Note. Significance testing performed with Mann Whitney U Test *$p \leq .05$

We compared data on the basis of project participants and non-participants. As the data in Table 6 demonstrate, in some cases, the project participants scored higher, and, in other cases, non-participants scored higher on item clusters. When analyzing the mean scores on the PAST of the project participants compared to the non-participants in the project, participants scored higher in syllable deletion, initial phoneme isolation, final phoneme isolation, concept of spoken word, and rhyme recognition. The non-participants scored higher in rhyme production, syllable blending, and syllable segmentation.

The Brigance scores show that participants scored higher in reading upper case letters and reading lower case letters. The non-participants scored higher on syntax/fluency. On the benchmark assessment, the project participants scored higher in identifying letters, identifying sounds, site word recognition, and writes uppercase letters. The non-participants scored higher on identifying initial sounds, writes lowercase letters, and uses letter sounds to make words. Because of the inconsistency noted among these data, it is difficult to make meaningful inferences about the impact of the interventions on either participants or non-participants. The findings are essentially inconclusive.

The data in Table 7 from the low-income participants and non-participants show the low-income participants' scores were higher in seven of the categories, and the low-income non-participants' scores were higher in 10 categories. On the PAST assessment, low-income participants scored higher on six of the eight clusters, including concept of spoken word, rhyme recognition, syllable deletion, syllable recognition, phoneme

isolation-initial sound, and phoneme isolation-final sound. On the Brigance assessment, however, low-income non-participants scored higher on reads uppercase and lowercase letters. On the benchmark assessment, low-income non-participants scored higher on five of the seven clusters. Because of the inconsistency between these two groups of students on the three assessments, no meaningful inferences about the interventions can be drawn. Again, the findings are essentially inconclusive.

Table 7

PAST, Brigance, and Benchmark Post Test Mean Scores - Kindergarten (2011) - Low-Income Project Participants and Low-Income Non-Participants

Test	Low-Income Participants		Low-Income Non-Participants		Diff.
	N	Mean	*N*	Mean	
PAST					
Concept of Spoken Word	9	4.89	7	4.43	0.46
Rhyme Recognition	9	5.89	8	5.50	0.39
Rhyme Production	9	4.11	8	4.38	-0.27
Syllable Blending	9	4.67	8	5.88	-1.21
Syllable Segmentation	9	5.78	8	5.62	0.16
Syllable Deletion	9	5.44	8	4.50	0.94
Phoneme Isolation – Initial Sound	9	5.56	8	4.88	0.68
Phoneme Isolation – Final Sound	9	3.67	8	3.62	0.05
Brigance					
Reads Uppercase Letters	9	24.56	8	25.75	-1.19
Reads Lowercase Letters	9	23.00	8	25.75	-2.75
Syntax/Fluency	9	2.00	8	2.00	0.00
Benchmark					
Identify Letters	9	13.11	7	13.00	0.11
Identify Sounds	9	6.78	7	7.00	-0.22
Initial Sounds	9	1.89	7	2.00	-0.11

Site Word Recognition	9	10.22	7	11.29	-1.07
Writes Letters - Uppercase	9	6.11	7	6.57	-0.46
Writes Letters - Lowercase	9	5.11	7	6.43	-1.32
Uses Letter Sounds to Make Words	9	2.00	7	2.43	-0.43

Note. Significance testing performed with Mann Whitney U Test

In Table 8, an examination of the three types of interventions in terms of post test performance shows no significant differences in any of the clusters on any of the assessments. So, while none of the data suggest that any one of the types of interventions was significantly more advantageous than another, it does appear that the students in the differentiated instruction classroom have performed slightly better on the clusters of all three assessments than the students in either of the other two classrooms as evidenced by higher post test mean scores. Moreover, when examined together, the data suggest that the project participants (i.e., those who received the interventions) scored higher than the non-participants (i.e., those who received no interventions). However, it is important to reiterate that these findings are non-significant and, therefore, inconclusive.

Table 8

PAST, Brigance and Benchmark Post Test Mean Scores - Kindergarten (2011)

Technology Intervention, Differentiated Instruction Intervention, No Intervention

Test	Technology		Differentiated Instruction		No Intervention	
	N	Mean	*N*	Mean	*N*	Mean
PAST						
Concept of Spoken Word	11	4.09	13	4.62	12	4.17
Rhyme Recognition	11	5.82	13	5.62	13	5.69
Rhyme Production	11	4.00	13	4.23	13	4.85

Syllable Blending	11	4.45	13	5.85	13	5.77
Syllable Segmentation	11	5.00	13	5.54	13	5.69
Syllable Deletion	11	4.73	13	5.38	13	4.31
Phoneme Isolation – Initial Sound	11	5.27	13	5.31	13	5.00
Phoneme Isolation – Final Sound	11	3.36	13	4.08	13	3.00
Brigance						
Reads Uppercase Letters	11	26.00	13	24.38	13	24.46
Reads Lowercase Letters	11	26.00	13	23.15	13	24.38
Syntax/Fluency	11	1.82	13	2.00	13	2.00
Benchmark						
Identify Letters	11	13.36	13	13.00	12	12.67
Identify Sounds	11	6.73	13	6.85	12	7.00
Initial Sounds	11	1.73	13	2.00	12	1.92
Site Word Recognition	11	10.00	13	10.08	12	9.75
Writes Letters – Uppercase	11	6.36	13	6.31	12	6.17
Writes Letters – Lowercase	11	6.18	13	5.46	12	6.25
Uses Letter Sounds to Make Words	11	2.27	13	1.08	12	2.08

Note. *Significance testing performed with Kruskal-Wallis*

There is one noteworthy observation. In the comparisons among participants and non-participants (see Table 6) and among low-income participants and low-income non-participants (see Table 7), the beginning of a trend was observed. In both of these analyses, according to the data from the PAST, participating students scored higher in syllable deletion, initial phoneme isolation, and final phoneme isolation. The low-income participants also scored higher in syllable segmentation. In Table 8, the data show that students participating in the differentiated instruction classroom scored higher in three of these four clusters (i.e., syllable deletion, syllable segmentation, initial phoneme isolation, and final phoneme isolation). So, while much of the data in Tables 6, 7, and 8 are statistically non-significant, there is at least some reason to infer that, in terms of syllable deletion, syllable segmentation, initial phoneme isolation, and final

phoneme isolation, participating students seem to have performed better than non-participants, and, among these participants, students who received the differentiated instruction intervention seem to have performed better than those who received the technology intervention.

Now, up to this point, the analyses have essentially been directed at exploring differences on post test scores only on the performance measures (i.e., the PAST, Brigance, and benchmark assessments). In the following tables, however, this direction is shifted somewhat from a focus on students' post test score performances to student growth, as measured by pre/post gains or losses on these assessments. The following tables analyze student growth according to income and participation status (i.e., low-income participants vs. low-income non-participants) and, for participants only, according to the type of intervention received.

Data in Table 9 show a comparison between low-income participants and low-income non-participants and an analysis of their relative growth. It is clear that the low-income participants demonstrated a greater, but not significantly greater, growth rate in every category on the PAST test. The greatest degree of growth was in phoneme isolation-initial sound, where the mean gain difference was 2.97 points. The low-income participants showed a mean gain of 4.22 and the non-participants showed a mean gain of only 1.25.

Table 9

PAST and Brigance Pre/Post Gain <Loss> Scores - Kindergarten (2011)

Low-Income Participants in Davis and Low-Income Non-Participants in Davis

Test	Low-income Participants'		Low-income Non-Participants'		Diff.
	N	Pre/Post Mean Gain <Loss>	*N*	Pre/Post Mean Gain <Loss>	Gain <Loss>
PAST					
Concept of Spoken Word	9	0.78	7	0.43	0.35
Rhyme Recognition	9	1.56	8	0.62	0.94
Rhyme Production	9	2.11	7	0.57	1.54
Syllable Blending	9	2.11	8	0.88	1.23
Syllable Segmentation	9	3.89	8	2.12	1.77
Syllable Deletion	9	3.56	8	2.00	1.56
Phoneme Isolation – Initial Sound	9	4.22	8	1.25	2.97
Phoneme Isolation – Final Sound	9	2.78	7	2.57	0.21
Brigance					
Reads Uppercase Letters	9	3.38	7	0.00	3.38
Reads Lowercase Letters	9	2.22	8	0.00	2.22
Syntax/Fluency	9	0.56	8	0.38	0.18

Note. Significance testing performed with Mann-Whitney U Test

A similar phenomenon was also demonstrated on the Brigance assessment. Results show for each literacy item cluster, the low-income students who participated in the project demonstrated greater mean gains than the low-income students who did not participate in the project. In fact, for two item clusters (reads uppercase and lowercase letters), non-participants demonstrated no growth at all. In addition, low-income participating students achieved greater mean score gains in syllable deletion, syllable

segmentation, initial phoneme isolation, and final phoneme isolation. These findings suggest, that among low-income students, participation in the project may have influenced or contributed to this increased growth.

Table 10

PAST and Brigance Pre/Post Mean Gain <Loss> Scores Pre-K (2010) and Kindergarten (2011); Technology Intervention, Differentiated Instruction Intervention, No Intervention

Test	Technology		Differentiated Instruction		No Intervention	
	N	*Gain <Loss>*	*N*	Gain <Loss>	*N*	Gain <Loss>
PAST						
Concept of Spoken Word	11	0.18	13	0.54	12	0.00
Rhyme Recognition	11	1.00	13	0.54	13	0.46
Rhyme Production	11	1.09	13	1.38	13	0.75
Syllable Blending	11	0.45	13	1.85	13	0.85
Syllable Segmentation	11	1.18	13	2.38	13	2.00
Syllable Deletion	11	2.09	13	3.31	13	2.38
Phoneme Isolation – Initial Sound	11	2.36	13	2.54	13	1.92
Phoneme Isolation – Final Sound	11	2.27	13	3.31	13	2.00
Brigance						
Reads Uppercase Letters	11	1.55	13	2.45	13	0.00
Reads Lowercase Letters	11	1.73	13	1.62	13	0.00
Syntax/Fluency	11	0.27	13	0.46	13	0.31

Note. Significance testing performed with Kruskal-Wallis (No significant differences observed)

Table 10 illustrates the growth that has been observed among those project participants who received the technology and differentiated instruction interventions as well as those in the control classroom who received no intervention. There were no

significant differences observed for any content cluster among any of these three groups, but the data do suggest that the students in the differentiated instruction classroom had higher growth in every category of the PAST assessment (including syllable deletion, syllable segmentation, initial phoneme isolation, and final phoneme isolation), with one exception, rhyme recognition, than either the technology class or the control class. On the Brigance assessment, students in the differentiated instruction classroom had more growth in two of the content clusters (reading upper case letters and syntax/fluency) than either the technology or the control classrooms, but slightly less growth on the remaining cluster of this assessment (reading lowercase letters). These data, therefore, suggest two things: first, that among both project participants and non-participants, nearly all of the students demonstrated growth in literacy knowledge and skill (there were some clusters for which non-participants demonstrated no growth); and second, that the class that received the differentiated instruction achieved greater, but not significantly greater, growth than either the technology intervention class or the control class. It is noteworthy, however, to reiterate that none of the growth patterns that have been illustrated was significant. It is equally noteworthy that, for none of the literacy clusters in either the PAST or the Brigance, did the students in the control (no intervention) classroom demonstrate growth that exceeded that which was demonstrated in both of the intervention classrooms.

In Table 11, the analyses was similar to those scores illustrated in Table 10, except that in Table 11, the focus was on only those participants identified as low-income. The data once again suggest that most students in all three classrooms demonstrated at least some growth in literacy skills. Moreover, students in both the

technology intervention and differentiated instruction classrooms achieved greater growth than the students who received no interventions. This suggests that the interventions may have influenced growth, at least in part, among the project participants.

Table 11

PAST, Brigance, and Benchmark Pre/Post Mean Gain <Loss> Scores Pre-K (2010) and Kindergarten (2011); Davis Low-Income Students Only Technology Intervention, Differentiated Instruction Intervention, No Intervention

Test	Technology		Differentiated Instruction		No Intervention	
	N	Gain <Loss>	*N*	Gain <Loss>	*N*	Gain <Loss>
PAST						
Concept of Spoken Word	3	0.00	6	1.17	8	0.43
Rhyme Recognition	3	2.33	6	1.17	8	0.62
Rhyme Production	3	2.33	6	2.00	8	0.57
Syllable Blending	3	0.33	6	3.00	8	0.88
Syllable Segmentation	3	4.00	6	3.83	8	2.12
Syllable Deletion	3	3.00	6	3.83	8	2.00
Phoneme Isolation – Initial Sound	3	5.33	6	3.67	8	1.25
Phoneme Isolation – Final Sound	3	1.33	6	3.50	8	2.57
Brigance						
Reads Uppercase Letters	3	3.00	5	3.60	8	0.00
Reads Lowercase Letters	3	3.00	6	1.83	8	0.00
Syntax/Fluency	3	0.33	6	0.67	8	0.88

Note. No Significance testing performed (Insufficient sample sizes)

Due to the very small sample sizes, however, valid hypothesis testing for significant differences among the different groups could not be conducted, thus rendering

it impossible to determine if the differences in growth among students in the three classrooms were significantly different. Suffice it to say, that the students in the differentiated instruction classroom achieved the greatest growth in concept of the spoken word, syllable blending, syllable deletion, phoneme isolation-final sounds, reads upper case letters, and syntax/fluency, and students in the technology classroom achieved the greatest growth in rhyme recognition, rhyme production, syllable segmentation, and reads lower case letters. Only in the syntax/fluency cluster of the Brigance assessment did the students in the control group outperform students in the project.

In Table 12, the analyses that were conducted were similar to those whose scores are illustrated in Table 11, except that in Table 12, the focus is on only those participants who were identified as non-low-income. The data in this table (when compared to the data in Table 11) suggest consistently lower growth patterns in nearly every literacy cluster on the both the PAST and Brigance among the non-low-income students, regardless of whether they were served in a technology intervention classroom or a differentiated instruction classroom. Simply stated, the low-income participants achieved greater growth than non-low-income participants in nearly every literacy cluster on both test measures. This phenomenon suggests that low-income students may be closing the achievement gap between themselves and their more advantaged peers.

Table 12

PAST, Brigance, and Benchmark, Pre/Post Mean Gain <Loss> Scores Pre-K (2010) and Kindergarten (2011); Davis Non-Low-income Students Technology Intervention, Differentiated Instruction Intervention, No Intervention

Test	Technology		Differentiated Instruction		No Intervention	
	N	Gain <Loss>	*N*	Gain <Loss>	*N*	Gain <Loss>
PAST						
Concept of Spoken Word	8	0.25	7	0.00	5	<0.60>
Rhyme Recognition	8	0.50	7	0.00	5	0.20
Rhyme Production	8	0.62	7	0.86	5	1.00
Syllable Blending	8	0.50	7	0.86	5	0.80
Syllable Segmentation	8	0.12	7	1.14	5	1.80
Syllable Deletion	8	1.75	7	2.86	5	3.00
Phoneme Isolation – Initial Sound	8	1.25	7	1.57	5	3.00
Phoneme Isolation – Final Sound	8	2.62	7	3.14	5	1.20
Brigance						
Reads Uppercase Letters	8	1.00	6	1.57	5	0.00
Reads Lowercase Letters	8	1.25	7	1.43	5	0.00
Syntax/Fluency	8	0.25	7	0.29	5	0.20

Note. *Significance testing performed with Kruskal-Wallis (No significant differences observed)*

In another attempt to determine whether the interventions project was having any effect or impact on closing the achievement gap between low-income students and their more advantaged peers, I did an analysis of the mean post test scores as well as the pre/post growth between the low-income participants and non-low-income non-participants. My reasoning for conducting this analysis was that, if the scores and/or the growth (especially the growth) demonstrated by the low-income participants was greater than the scores and/or growth (especially the growth) demonstrated by non-low-income non-participants, then perhaps a case could be inferred that the project's services and activities were helping to bridge the gap between low-income students and non-low-income students. These analyses follow immediately in Tables 13 and 14.

Table 13

PAST, Brigance, and Benchmark Post Test Mean Scores - Kindergarten (2011) Low-Income Project Participants and Non-Low-income Non-Participants

Test	Low-income Participants		Non-Low-income Non-Participants		Diff.
	N	Mean	*N*	Mean	
PAST					
Concept of Spoken Word	9	4.89	20	4.00	0.89
Rhyme Recognition	9	5.89	20	5.70	0.19
Rhyme Production	9	4.11	20	4.50	-0.39
Syllable Blending	9	4.67	20	5.55	-0.88
Syllable Segmentation	9	5.78	20	5.20	0.58
Syllable Deletion	9	5.44	20	4.65	0.79
Phoneme Isolation – Initial Sound	9	5.56	20	5.15	0.41
Phoneme Isolation – Final Sound	9	3.67	20	3.35	0.32
Brigance					
Reads Uppercase Letters	9	24.56	20	24.70	-0.14
Reads Lowercase Letters	9	23.00	20	24.55	-1.55
Syntax/Fluency	9	2.00	20	1.90	0.10
Benchmark					
Identify Letters	9	13.11	20	12.95	0.16
Identify Sounds	9	6.78	20	6.85	-0.07
Initial Sounds	9	1.89	20	1.85	0.04
Site Word Recognition	9	10.22	20	9.35	0.87
Writes Letters – Uppercase	9	6.11	20	6.25	-0.14
Writes Letters – Lowercase	9	5.11	20	6.15	-1.04
Uses Letter Sounds to Make Words	9	2.00	20	1.45	0.55

Note. Significance testing performed with Mann-Whitney U Test *$p \leq .05$

As the data in Table 13 show, when comparing the low-income participants' and non-low-income non-participants' mean scores, the findings are inconsistent. Low-income participants scored higher on nine of the clusters, and non-low-income non-participants scored higher on eight of the clusters. When interpreting the PAST

assessment alone, the low-income participants scored higher on five out of the eight clusters, including syllable segmentation, syllable deletion, initial sound phoneme isolation and final sound phoneme isolation. These data are inconclusive.

Table 14

PAST and Brigance Pre/Post Gain <Loss> Scores - Kindergarten (2011)

Low-Income Project Participants and Non-Low-income Non-Participants)

Test	Low-income Participants' Pre/Post Mean		Non-Low-income Non-Participants' Pre/Post Mean		Diff.
	N	Gain <Loss>	*N*	Gain <Loss>	Gain <Loss>
PAST					
Concept of Spoken Word	9	0.78	20	<.05>	0.83
Rhyme Recognition	9	1.56	20	.25	1.31
Rhyme Production	9	2.11	20	.80	1.31
Syllable Blending	9	2.11	20	.70	1.41
Syllable Segmentation	9	3.89	20	.90	2.99**
Syllable Deletion	9	3.56	20	2.45	1.11
Phoneme Isolation – Initial Sound	9	4.22	20	1.80	2.42*
Phoneme Isolation – Final Sound	9	2.78	20	2.45	0.33
Brigance					
Reads Uppercase Letters	8	3.38	19	0.89	2.49*
Reads Lowercase Letters	9	2.22	20	1.00	1.22
Syntax/Fluency	9	0.56	20	0.25	0.31

Note. Significance testing performed with Mann-Whitney U Test *$p \leq .05$ **$p \leq .01$

Finally, in Table 14, an analysis was conducted in which the growth of low-income project participants was compared with the growth demonstrated by non-low-income students who were not participating in the project. These data clearly show that the low-income student participants made greater gains than the non-low-income non-

participants. The highest gains were in phoneme isolation – initial sound, syllable segmentation, syllable deletion, and reading upper case letters. The non-low-income non-participants demonstrated a mean loss in the concept of spoken word. When interpreting these data, it does not appear unreasonable to infer that the interventions may have, at a minimum, influenced or contributed to closing the achievement gap because the low-income participants did show greater growth in all areas.

Parent Participation in the Kindergarten Intervention Project

The parents were required to attend the reading nights with their child. They were able to help their children with the craft of the day and to read books with them if their child finished the craft early. The teachers also read the story books in such a way as to show the parents how to engage their children in conversations about the reading and to check for student understanding of the story. Parents were then encouraged to read the take-home books to their children and discuss the story with their children at home.

Parents of participating students were given a survey in an attempt to determine if they had observed any signs of literacy activity or improvement in their children's reading ability. As the data in Table 15 show, substantial percentages of parents responded that their children were looking at books more, pretending to read more, and initiating words and sounds more. This feedback was extremely positive and clearly demonstrated that the students were using the skills taught at school and transferring them at home. The data further suggest that participation in the project and receiving the project interventions was having a positive impact on students' literacy skills.

Table 15

Parent Survey of Skills Acquisition by Project Participants (n=27)

Skill *Compared to last year, my child does the following at home:*	A Lot More	A Little More	No Change	A Little Less	A Lot Less	Mean Score
looks at books	78%	15%	7%			1.3
looks at magazines and/or newspapers	22%	52%	26%			2.0
asks an adult to read to him/her	78%	19%		4%		1.3
pretends to read	85%	15%				1.2
talks about books, magazines, or newspapers	52%	41%	7%			1.6
talks about reading	78%	11%	11%			1.3
follows along as you read	74%	26%				1.3
Imitates words and sounds they hear while reading a book	82%	15%	4%			1.2
Constantly asks questions about words, signs, and other sources, including environmental print	82%	15%	4%			1.2

Note. Means are based on a scale where 1=a lot more and 5=a lot less

Discussion of Results of Action Research Interventions Project

Looking only at the post test scores on all of the assessment measures, the findings appear inconclusive as to whether participation in the project and, more specifically, participation in either or both of the interventions, had a positive impact on students' literacy skills. Looking at growth, however, there is some evidence that the project may, at a minimum, have contributed or influenced positive student growth as evidenced by the increases in pre/post scores. There was significant growth between pre-kindergarten and kindergarten among all students regardless of project participation. Among the low-income students only, project participants showed greater growth than non-participants. Participation in the project may have contributed to this. Both

participants and non-participants demonstrated growth (not significant); however, students who received differentiated instruction demonstrated greater growth than students in technology or control group (no intervention). Students who received differentiated instruction seemed to show the greatest growth in syllable segmentation, syllable deletion, and phoneme isolation both initial and final. Among low-income students alone, all three classrooms showed growth, but students in the differentiated instruction and technology interventions classroom showed greater growth than the control group. When comparing the project participants, low-income students seem to demonstrate greater growth than non-low-income students. Implementing differentiated instruction and technology may have helped to close the achievement gap, if only in a small and perhaps statistically non-significant way, and to improve the literacy skills of the low-income kindergarten students in the By-the-Sea School District.

Understanding Change

As I indicated earlier in this chapter, I knew that my action research project was really about introducing a change in the district and school. Full-day preschool – as a concept – was new, and focusing primarily on low-income children was also new. So, in the very beginning of the project, as I was mulling over all that I needed to do, I was well aware that this change could be messy. At a minimum, it was not going to be easy. I needed a plan, and I had one!

Change is difficult because it forces people out of their comfort zone. People resist change in many ways and for many reasons. Evans (1996) writes about the various meanings people attach to change. For example, change can provoke a sense of loss, challenge competence, create confusion, and/or cause conflict. I knew this process was

not going to be easy, especially since I was an outsider to the pre-school teachers because I am a third grade teacher at Davis School. Knowing this information about change and resistance, as the change leader, I also knew I needed an organized plan that would help with the change process. After reviewing various models offered by Chang, Heifetz, and Kotter, I focused on following Monahan's 9-step change model to ensure that the project would be successful (Monahan, 2003).

One of the first requirements in the 9-step model is to conduct an environmental scan and a school culture analysis. I am a teacher at Davis School, so I had my own insights and theories about the culture of the school. But in order to validate my thinking, I initiated a brief survey of the teachers and interviewed some of them about the culture of the school. Since I am a colleague and not an administrator, I hoped that everyone would be open and honest in their responses. The survey was anonymous and could not be tracked back to the participant. A summary of selected findings is illustrated in Table 16.

Table 16

Staff Assessment of School Culture – Davis Elementary (N=22)[1]

Criterion Statement "In this school……	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Mean
Shared Goals: …teachers share a value that places teaching, learning, and students' interests and needs front and center.	46%	46%	9%			1.64
Responsibility for Success: …teachers bear collective	50%	41%	5%	5%		1.64

[1] The data in Table 16 represent only selected criteria from a larger survey.

responsibility for student learning. There's a belief that teachers can and do make a difference. There's a widely held belief that all children can learn.						
Collaboration and Teamwork: …teachers share and assist each other as a matter of routine. There is an orientation towards the school as a community that is voluntary, spontaneous, and outcomes oriented.	55%	32%	9%	5%		1.64
Continuous Improvement: … there is a sense that, no matter how effective a school is deemed to be, there is always room for improvement.	36%	59%	5%			1.68
Lifelong Learning: …the fundamental assumption is that learning never stops; there's always more to learn and students learn best alongside adults who learn.	19%	67%	10%	5%		2.00
Risk-taking: … experimentation, trial and error, action research, and learning through mistakes are valued and seen as essential parts of learning.	9%	46%	32%	9%	5%	2.55
Mutual Respect: …diversity is perceived as a strength, and there is freedom for individuals to realize shared goals in different ways.	10%	52%	24%	10%	5%	2.48
Concentration on Teaching and Learning: …teachers focus on learning, maximize learning time, and emphasize achievement.	36%	59%	5%			1.68
High Expectations: … there are high expectations for both students and staff.	41%	46%	9%	5%		1.77
Monitoring Progress: … student performance is regularly monitored and school performance regularly evaluated.	27%	59%	14%			1.86
Home-School Partnership: … teachers value parental involvement as an important part of student learning.	27%	41%	32%			2.05
A Learning Organization: … there is job-embedded staff development grounded in student and adult learner needs.	5%	50%	32%	14%		2.55

Note. Mean scores are predicated on a scale where 1=Strongly agree and 5=Strongly disagree

Overall, the Davis School culture is positive and focuses on student learning. The teachers respect each other, and they respect the students they teach. The teachers' responses indicate that the Davis School culture includes shared goals, a responsibility for success, collaboration and teamwork, continuous improvement, life long learning, concentration on teaching, and high expectations within the Davis School. Through the interview process, I was able to talk to 10 teachers about their experiences at Davis and most of them were positive when talking about their fellow staff and their students. The interviews helped to confirm the information that is reported in Table 16. The teachers at Davis school are willing to go above and beyond to help their students succeed on the ASK assessment, in the classroom, and in life. The staff is a pleasure to work with, and they promote a healthy, positive environment that put the students' needs at the forefront of their concerns. Having my own insights about the school culture triangulated and confirmed by the survey data and interview feedback, I was able to proceed with the planning and implementation of my change project (i.e., the action research kindergarten intervention project).

I also knew that, for this project to be successful, all of the members of my PLC (as well as the administrators) needed to share the vision for what we wanted to achieve and how we needed to implement the project. However, I knew that a shared vision would not happen by itself, so, before we could achieve a shared vision, I needed to do a number of things: I needed to assemble other stakeholders in the school, because there was no way I could pull off this project by myself. I knew that to get these stakeholders involved, I would have to clearly demonstrate reasons for the change, so I began by

gathering and compiling the information necessary to confirm the need for the change and to build a sense of urgency for it.

I first completed an environmental scan (step 1) in which I went into the preschool classrooms, and I observed and interviewed the teachers. They all welcomed me into their classrooms, but they were a little suspicious at first about what I was doing there. One teacher even asked, "Are you going to be our preschool teacher leader?" (Leadership Journal, October 2009). I had to explain that I was working on my dissertation, and these observations were just for me to see what is currently being done in the preschool classroom. As part of the scan, I also reviewed and analyzed the student performance data that was available in the district archives. Between my observation and interview data and the student performance data, the need for action was becoming clearer and clearer.

After I gathered information from preschool classroom observations, teacher interviews, and district data, I was able to start talking about the need for change (step 2). I started to do this informally at first by discussing issues that I had found with individual teachers. In my leadership journal I wrote, "my conversation with Lou Ann was a positive discussion about the issues that are facing the preschool students" (Leadership Journal, November 2009). Another entry in my leadership journal states, "Jennifer feels that it is a challenge to teach students when all of them come with a different knowledge base" (Leadership Journal, November, 2009). After hearing their opinions and getting support from several preschool teachers, I decided it was time to bring the data to the preschool team. This was done through creating a professional learning community. The PLC was created to include me and the preschool teachers, who could give input into the

project. The preschool teachers were already a close group and met together twice a month to discuss as a team different issues, events, and activities that were coming up. I was able to reconstitute this group as a PLC and, when we met, we talked about what we could do to help our low-income students succeed in the classroom. This was difficult since I was not a part of their preschool group. In my journal I wrote, "the preschool teachers are a very close group, it is going to be hard to break into the group and inspire change" (Leadership Journal, November, 2009). I decided I would try to lead the PLC as an equal, coming in to discuss the district issue of our low-income students not succeeding on the state assessment.

We started to discuss the issues and how we could help our low-income students. I shared with them what I had learned from my observations and interviews, and we reviewed the state test data that I compiled, and we arrived at a common understanding that there is an achievement gap even at the beginning of preschool. When I interviewed the teachers and asked what some issues they found in the classroom were, a few responded:

"Some students come in knowing their colors, shapes, and letters and others have no prior knowledge."

"Reaching all of the children and getting them all to grow to a point that they are ready for kindergarten."

"Everything is getting pushed down, so preschool has become much more demanding."

During the first PLC meeting, after providing the teachers with information from the interviews, observations, and student performance data, we discussed information

from the book, *Inequalities at the Starting Gate: Social Background Differences in Achievement as Children Begin School* (Lee & Burkam, 2002). All of this information pointed out that we needed to do something to help our low-income students succeed in the classroom. When asked later if I was able to be a good mentor or model one of the participants replied:

> I feel that before you present things to other teachers that you research and get the appropriate information that you need to help us. You are not giving information on your own, but through research. Yes, you have been a good model.

Together we discussed how Lee and Burkam (2002) reported that there are many differences between low-income students and their more advantaged peers. I also showed them how our district data reports have clearly shown that our low-income students are not succeeding on the ASK assessment in language arts and math. We also discussed how they have also seen that their low-income students arrive with a dearth of knowledge and a variety of different experiences. I explained how I felt that, if we were going to solve this problem and help close the achievement gap, then we needed to start at preschool and not wait for the achievement gap to expand as they move through school.

"After the discussion, the PLC meeting started to murmur with excitement" (Leadership Journal, January 2010). The teachers started to brainstorm ideas about what they needed and how we could help our students. Through these discussions and meetings, it became abundantly clear to me that we were, in fact, creating a vision that we all shared (step 3). "This group of teachers care about the students and they want all of their students to succeed" (Leadership Journal, January 2010). Now that we all seemed to be "on the same page" and committed to our mission, we were able to move ahead with an action plan. We decided we would meet frequently in the ensuing weeks and

discuss in more detail what we could do for our students. During our meetings, the preschool teachers felt that getting the parents involved would help their students tremendously (Leadership Journal, 2010). We started to develop an action plan (step 4).

The preschool teachers said that they would like to see some sort of reading night or event that would bring in the parents so they could be a part of their children's learning. I helped to align existing support structures by getting our superintendent, the building principals, and the curriculum director on board with our shared vision. Everyone was very positive about what needed to be done, and everyone wanted to help. We further aligned our resources (step 5) through a fundraiser and donations. Lisa said she would help publicize the event by creating a bulletin board that would go with the weekly theme. I created a flyer and sent copies to all of the preschool teachers, so they could distribute them to their students. Then, we set out to implement the action plan (step 6).

The preschool reading night began, and some of the teachers were not able to attend because of other obligations. Three of the teachers, Jennifer, Lisa, and Louann, were able to make it back to school to the reading nights. Betty and I ran the nights and took the lead role in the organization of each night. Since I was not a teacher in the New Age school, most of my conversations with them were through email. This made things a little difficult, and some people were not clear about what was expected of them. "I did not realize that you wanted to lead us to do something. We thought it was your project" (Leadership Journal, October, 2010). After the reading night, we began to celebrate our first short term win and the success of the reading nights (step 7). We discussed parental feedback and talked about what we needed to do next. We got very good feedback about

the reading nights from the parents, and we were able to celebrate our first successful program. We then rebalanced the project (step 8) by deciding that it would be better to continue to work with the same population of students and work on interventions that would help them in their kindergarten setting. The preschool teachers then planned for change that would last over the long term (step 9). Even though I moved with the students, the reading nights seem to have become second order change (Evans, 1996). They have been continued this year without me, and they were even made into big family night events. The preschool teachers have continued to plan the reading nights, so these nights would represent a change that lasts over time.

Then we decided to implement interventions to the kindergarten classroom (this was another part of step 6). The kindergarten teachers, Miley, Lillian, and Diane were very excited about being a part of this project. Lillian was away during the summer when we originally met, so we decided she would be the teacher of the control group. That was acceptable to her, and she offered to help out in any way she could. Through our discussions, Miley and Diane were both looking to make changes to their classrooms anyway, and they saw this as the perfect opportunity to do so. After studying best practices and much discussion, we decided to implement technology and differentiated instruction as our additional project interventions. (This was in direct response to what the teachers believed they needed in order to be successful.) Miley implemented differentiated instruction. Diane implemented technology. This was an easy change because they were not required to do anything afterschool or on their own time. I was asking them to incorporate research-based interventions into their classroom. I also volunteered to come and help them implement these interventions into their classroom if

they needed it. There was no resistance to change because everyone understood and was eager to advance the project. They also understood the vision and their role within the project. This was much easier to communicate to them because they had heard about the project for a year, and I was able to talk with them on almost a daily basis. The technology intervention needed some planning and organization. We wrote a grant that helped us purchase the technology needed to make this intervention possible. Both interventions were up and running and put into place by September 2010. We are currently making plans to make these interventions become a second order change (Evans, 1996) within their classrooms as well as within the district (Steps 8 and 9).

I do think the change process was successful. The evidence of the preschool teachers continuing the reading nights and making them even better is definitely a success. The data from the kindergarten classrooms is going to be presented to the preschool through second grade teachers in the hope that more teachers will get on board and make differentiated instruction and technology a part of their classroom routine. The process of change is a difficult one. It is very hard to make a change when one is an outsider of the school. I found it was much easier to make changes in my own school. In the future, when I am instituting a change, I will make sure I am available to all participants on a regular basis. I will also communicate with them face-to- face instead of through email as much as possible. The change process would have gone a lot smoother if the teachers were clear on my role and what the project entailed right from the very beginning. I also feel that, if the project was in a place where the teachers had contact with me on a daily basis and were able to come up and discuss things with me regularly, the participants would have felt more a part of the project then they did. This was proven

to be true when I worked with the kindergarten teachers at Davis School compared to when I worked with the pre-school teachers at New Age School. We are currently working on making this a second order change to last even after this project ends.

What I learned from this project is that change is a journey not a blueprint. It is non-linear, loaded with uncertainty, and sometimes messy. I came to understand that problems are inevitable; but the good news is that one cannot learn or be successful without them. I also learned that every person is a change agent. Each one of the members of my PLC was an important contributor to the change process and, as I have indicated earlier, I could not have brought this change to a successful conclusion without their cooperation and participation. I also learned that effective change takes time and that, without a shared vision and clearly articulated plan of action with goals and objectives, the change process might not be successful. Finally, I learned that change is a frustrating, discouraging business. It can be messy and difficult. Nevertheless, change leaders who approach change with a plan to introduce it in a clear and systematic way and who nurture the process and keep it on track are likely to be successful.

Understanding Leadership

In this project, I analyzed my leadership through an analytic inductive method, using multiple sources, including the MLQ, interviews with my teacher colleagues, and my personal reflective journal, to look at my ethical as well as my transformational leadership. I began my analysis with the emergent hypothesis that I was, in fact, an ethical transformational leader. In Table 17, I have assembled from multiple sources a list of attributes and characteristics that might be used to describe such a leader. I have also drawn from the work of Avolio and Bass (2004) who have documented empirically

observable indicators of not only transformational leaders, but transactional and passive avoidant leaders as well. In this section, I return to the data that I have collected about my leadership during the implementation of the action research project in order to test my emergent hypothesis.

Table 17

Selected Characteristics and Attributes of a Transformational Leader

➢ Helpful ➢ Reexamines assumptions to question their appropriateness and accuracy ➢ Proactive in identifying and solving problems ➢ Articulates important values and beliefs ➢ Seeks differing perspectives as a function of problem solving ➢ Optimism about the future ➢ Instills pride in others ➢ Clearly articulates individual's roles and responsibilities ➢ Enthusiasm ➢ Strong sense of (moral) purpose ➢ Teaches ➢ Coaches ➢ Articulates a clear and compelling vision for the future ➢ Emphasizes the importance of having a collective (shared) vision for the future	➢ Treats people honestly, justly, and as individuals rather than simply as members of the group ➢ Acts in ways that engender trust ➢ Considers the moral and ethical consequences of decisions ➢ Displays confidence ➢ Considers each individual as having different needs, abilities, and aspirations ➢ Encourages others to look at situations and problems from different perspectives ➢ Engages in 2-way communication ➢ Helps others to develop their personal strengths and abilities ➢ Encourages and suggests new ways of looking at how to complete assignments ➢ Effective in helping others to achieve their job-related needs ➢ Demonstrates appropriate referent and expert power ➢ Uses methods of leadership that are satisfying

➢ Goes beyond self-interest for the good of the team ➢ Encourages others to go beyond self-interest for the good of the team ➢ Help to increase others' willingness to try harder	➢ Gets others to do more that they expected to do ➢ Heighten others' desire to achieve and succeed ➢ Practices distributed leadership

The MLQ helped me to collect data anonymously through an online inventory[2] that was distributed to my teaching colleagues who represent the "staff" or the "followers" in my action research project. All nine of my colleagues completed the survey, and I also completed a self-assessment. The inventory was designed to measure the five characteristics of transformational leadership: idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individual consideration. Further, it measures two characteristics of transactional leadership; contingent reward and active management-by-exception. The inventory also measures passive avoidant characteristics: passive management-by-exception and laissez-faire. In addition to measuring these leadership characteristics, the MLQ also captures the perceptions of the participants regarding selected outcomes of leadership, such as extra effort, effectiveness, and satisfaction.

Table 18

MLQ Leadership Characteristics (Avolio & Bass, 2004, p. 95)

[2] Due to the proprietary nature of the inventory, I am prohibited from displaying the discrete MLQ items in this report.

Characteristic	Descriptors
Transformational Leadership	Transformational leadership is a process of influencing in which leaders change their associates awareness of what is important, and move them to see themselves and the opportunities and challenges of their environment in a new way. Transformational leaders are proactive: they seek to optimize individual, group and organizational development and innovation, not just achieve performance "at expectations." They convince their associates to strive for higher levels of potential as well as higher levels of moral and ethical standards.
Idealized Influence (Attributes and Behaviors)	These leaders are admired, respected, and trusted. Followers identify with and want to emulate their leaders. Among the things the leader does to earn credit with followers is to consider followers' needs over his or her own needs. The leader shares risks with followers and is consistent in conduct with underlying ethics, principles, and values.
Inspirational Motivation (IM)	These leaders behave in ways that motivate those around them by providing meaning and challenge to their followers' work. Individual and team spirit is aroused. Enthusiasm and optimism are displayed. The leader encourages followers to envision attractive future states, which they can ultimately envision for themselves.
Intellectual Stimulation (IS)	These leaders stimulate their followers' effort to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. There is no ridicule or public criticism of individual members' mistakes. New ideas and creative solutions to problems are solicited from followers, who are included in the process of addressing problems and finding solutions.
Individual Consideration (IC)	These leaders pay attention to each individual's need for achievement and growth by acting as a coach or mentor. Followers are developed to successively higher levels of potential. New learning opportunities are created along with a supportive climate in which to grow. Individual differences in terms of needs and desires are recognized.

The findings from the administration of the inventory are presented immediately following. In Table 19, mean scores that reflect transformational leadership are high and those that reflect other types of leadership are low. These data helped to confirm my hypothesis that I am a transformational and ethical leader.

Table 19

Multifactor Leadership Questionnaire – Leadership Characteristics

Characteristics	Scale name	Staff – Mean	Self – Mean

Transformational	Idealized Attributes	3.64	3.75
Transformational	Idealized Behaviors	3.23	4.00
Transformational	Inspirational Motivation	3.60	3.75
Transformational	Intellectual Stimulation	3.25	3.25
Transformational	Individual Consideration	3.46	4.00
Transactional	Contingent Reward	3.22	3.50
Transactional	Mgmt by Exception (Active)	1.31	1.00
Passive Avoidant	Mgmt by Exception (Passive)	0.23	0.00
Passive Avoidant	Laissez-Faire	0.03	0.00
Outcomes of Leadership	Extra Effort	3.54	4.00
Outcomes of Leadership	Effectiveness	3.58	3.50
Outcomes of Leadership	Satisfaction	3.79	4.00

On a scale where 0=*not at all* and 4=*frequently, if not al*ways, I rated myself at 3.75 and 4.00 for the transformational indicators of idealized attributes and idealized behaviors respectively. On these same characteristics, the staff with whom I worked on this action research project (and who responded to my leadership) rated me slightly lower at 3.64 and 3.60 respectively. According to Avolio and Bass (2004),

> Transformational leaders who have associates who view them in an idealized way, … wield much power and influence over their followers. [Followers] identify with [their] leaders and their mission. They develop strong feelings about such leaders, in whom they invest much trust and confidence. (p. 26)

These followers look to their leaders for inspiration and motivation, and they seek to achieve the shared vision that they collectively have forged.

Although my ratings for my own idealized attributes and behaviors were slightly higher than those of my staff, I believe that we all agreed that, in general, I tended to demonstrate them frequently as I led the project. During my interviews, I received feedback from my colleagues that supported the contention that they exhibited trust and confidence in my leadership. When I asked, “One of the things I’ve tried to do in

providing leadership for this project is to get everyone to trust me – in my leadership, my knowledge of what to do, my fairness in treating colleagues and students and parents, in helping students to achieve. Do you think I've been successful? How, in what specific ways?", they responded as follows:

> Yes, I think when trying to gain trust it is important to have open communication. It is also important to have patience with everyone involved and to show your colleagues that you are available to them. You have been vigilant in all of these respects.

> You have come across as a very trustworthy leader, someone that your colleagues trust. In organizing and carrying out the Reading Nights during the 2009-2010 school year, we could count on you to give us information, etc. in a timely manner and keep up informed as to what was happening with the program. This year, you were supportive with our first Family Nights.

> I think you have. You came across with all of your ideas that you gave us with a background of why we are doing them and what we need to do. I have been able to trust you and implement things into the classroom and do the things you asked us to do because you have given us knowledge on why we are doing it and how it is going to be helpful to our kids.

On the same scale where 0=*not at all* and 4=*frequently, if not always*, I rated myself at 3.75, 3.25, and 4.00 for the transformational indicators of inspirational motivation, intellectual stimulation, and individual consideration. On these same characteristics, the staff with whom I worked on this action research project (and who responded to my leadership) rated me 3.60, 3.25, and 3.46 respectively. Inspirational motivation and individual stimulation were rated slightly lower by staff than my self-evaluation, but intellectual stimulation was the same for my staff and my self-evaluation. According to Avolio and Bass (2004),

> Inspirational leaders articulate, in simple ways, shared goals and mutual understanding of what is right and important. They provide visions of what is possible and how to attain them. They enhance meaning and promote positive expectations about what needs to be done. (p. 27)

During the interview process, when I asked, “Have I been able to inspire you and the other teachers? How? What about the students? Do you think I’ve inspired them? How? How do you know?”, participants responded with the following:

> I feel that you have been an inspiration to me in many ways. First and foremost, to attain your Ed.D. while working full time and having two small children is a great feat. In addition, to maintain the level of teaching quality while you are working on your own education is inspiring. I also believe that you are inspiring to the students. I watched as you taught the pre-school students. They wanted to please you, follow your direction, and listen attentively while you were teaching. They were more than willing to please you in every way.
>
> Yes, we have created a reading night program this year that is amazing. The students have also been inspired to read and to enjoy reading with their families. My parents loved the reading night, and they were always talking about what a positive experience it was for them.
>
> You have surely inspired me and all of the pre-k teachers. The pre-k reading night program that we piloted last year has inspired the pre-k team to continue along the lines of a ‘reading night’- themed program to involve family members in their child’s education this year. We have been able to work together this year (pre-k team) to offer students and their families a similar program. I also think that the program last year inspired parents and students to share more time together reading. For example, one student in my class would come to school talking about the books he read at home with his parents (after attending your program). He also started bringing his favorite stories in to school to share with the class.

According to Avolio and Bass (2004),

> Through Intellectual Stimulation, transformational leaders help others to think about old problems in new ways. They are encouraged to question their own beliefs, assumptions, and values, and, when appropriate, those of the leader, which may be outdated or inappropriate for solving current problems. (p. 27)

The MLQ survey, which included a section for open-ended responses, allowed the staff to offer comments on how effective I was as a leader, and one response that shows I provided intellectual stimulation was, “She is ready, willing, and able to accomplish and further goals---she is always upbeat and positive---she is open to others' ideas and thoughts.”

During the interview process, I asked: "Did I encourage collaboration when making decisions that will affect everyone involved? If so, how did I do this?" One teacher responded, "I know that you always asked us our opinions of how we thought things would work, and asked us all for input on various occasions, so yes."

Another teacher made this statement:

> Yes, at the meetings when you have presented information, you have always allowed time to discuss what was being presented and what we thought about it. You also asked our help on how to close the achievement gap. Together we came up with ideas using your research on best practices.

"A key measure in a leader's effectiveness is how capable their associates are when operating without the leader's presence or direct involvement" (Avolio & Bass, 2004, p. 27). This speaks to the issue of intellectual stimulation, and this was demonstrated in the aftermath of the preschool Parent Reading Night program. The reading night was continued without my help, and the preschool teachers made it a bigger and better event this year. My leadership of the Parent Reading Night sparked the following participant's comment:

> Regarding the pre-k reading night, you provided a plan for us to use and elaborate on and because of this we (the pre-k team) have created a professional learning community amongst ourselves. When we meet to discuss ideas and make plans for this year's family reading night program, we talk about why we do the specific activities, what the students and parents will learn from them, and we discuss changes that we need to make to become more effective in our program.

Another staff members stated, "I think that you have helped the pre-k team to become more innovative. The pre-k team has worked together and has come up with creative ways to increase parental involvement this year." These last two comments attest to the impact of my leadership on the program: "You have helped in getting the preschool reading night started. We have seen huge success in the program this year." "Yes,

because we took it to the next level. We included the importance of reading yet added much more to it this year."

According to Avolio and Bass (2004, p. 28), Individual Consideration "means understanding and sharing in others' concerns and developmental needs and treating each individual uniquely" (p. 28). The following are some of the responses that I received to my question during the interview process, "Do you feel that I've acted ethically and with integrity? What can you remember that I've done that illustrates this?"

Participants responded: "Yes, you included everyone who had to be in the PLC and you even let others join when they were interested in the topic." "You acted ethically and with integrity. You treated us as professionals and you were open to all ideas and help." And finally:

> Having been a colleague and friend of yours for quite some time, it is apparent that you are a woman of integrity. Integrity is not something you can create or 'put on;' your integrity and ethics are clearly illustrated by the way you treat others, including students, colleagues, and administrators. It also has a lot to do with where your heart is and I feel that yours is always in the right place. You're in it for the kids.

As can be seen from these data, my colleagues and I agreed that I demonstrated transformational and ethical characteristics through the key aspects of transformational leadership: idealized attributes and behaviors, inspirational motivation, intellectual stimulation, and individualized consideration.

On a scale of 0=*not at all* and 4=*frequently, if not always*, I rated myself at 3.50 and 1.00 for transactional characteristics of contingent reward and active management-by-exception. On these same characteristics, the staff with whom I worked on this action research project (and who responded to my leadership) rated me 3.22 and 1.31. According to Avolio and Bass (2004), "Contingent Reward – clarifies what is expected

from followers and what they will receive if they meet expected levels of performance" (p. 48). Some of the performances that constitute contingent reward are providing assistance in exchange for their efforts, discussing in specific terms who is responsible for achieving our targets, making clear what one can expect to receive when performance goals were met, and expressing satisfaction when others meet expectations (Avolio & Bass, 2004). I was surprised that I scored so highly on these transactional indicators, but now that I understand the indicators better, I can see that there were times that I offered a contingent reward. As noted in my leadership journal, "I was always willing to help out because I was thrilled to see Renee's excitement as we initiated the interventions." Another teacher reported, "Renee's smile and positive personality gave us the energy to continue to improve ourselves and make the necessary changes to help our low-income students succeed in the classroom." A teacher's response to one of the MLQ open-ended questions states, "Renee's quiet praise for our efforts helped us continue when otherwise we may have given up" (November, 2010). My leadership journal also documented how I provided rewards when we met our objectives. " In October, I gave the preschool teachers a luncheon to say thank you for their efforts and that I appreciated all of their work they did for the reading nights" (Leadership Journal, 2010).

According to Avolio and Bass (2004), "Active Management-by-Exception focuses on monitoring task execution for any problems that might arise and correcting those problems to maintain current performance levels" (p. 48). In my leadership journal (January, 2011), I noted that when discussing with the other teachers who helped with the project, one stated, "I felt that you were aware of what was going on throughout the project and you were there to help fix problems when they arose."

On a scale of 0=*not at all* and 4=*frequently, if not always*, I rated myself at 0.00 and 0.00 for the passive-avoidant indicators of passive management-by-exception and laissez-faire leadership. On these same indicators, the staff with whom I worked on this action research project (and who responded to my leadership) rated me 0.23 and 0.03. These ratings were very low. According to Avolio and Bass (2004), "Passive Avoidant…tends to react only after problems have become serious to take corrective action and may avoid making decisions at all" (p. 48). From these numbers, I can say that I am not a passive-avoidant leader. I am not afraid to take action, and that is shown in the way I handled situations in the project. When asked on the MLQ what my participants admire most about me, one stated, "Renee is always the one to get the conversation started in making meaningful, sustained change." During the interview process, one teacher shared, "I felt you were actively involved and you did not wait for problems to become serious." Another teacher shared, "Renee was not hesitant to make decisions - she knew what needed to be done and she made decisions with the students at the center of the decision making process." These data support my self-analysis that I do not wait for problems to happen, but I try to take an active role in monitoring project activities and helping to solve issues before they become problems.

As part of my analysis of my leadership, I examined not only my behaviors, but the outcomes of these behaviors as well. In the paragraphs that follow, I present and discuss several outcomes that were measured by the MLQ. On a scale of 0=*not at all* and 4=*frequently, if not always*, I rated myself at 4.00, 3.50, and 4.00 for three outcomes of leadership that are included in the MLQ: extra effort, effectiveness, and satisfaction. On

these same indicators of outcomes, the staff with whom I worked on this action research project (and who responded to my leadership) rated me 3.54, 3.58, and 3.79.

Extra effort constitutes different factors, which are described in the MLQ manual as follows:

- Get others to do more then they expected to do.
- Heighten others' desire to succeed.
- Increase others' willingness to try harder. (Avolio & Bass, 2004, p. 97)

Some of the information from my leadership interviews confirms that the staff put extra effort into this project. During the leadership interviews, I asked, "Have I been able to inspire you and the other teachers? How? What about the students? Do you think I've inspired them? How? How do you know?" A teacher responded: "You have inspired me to be the best that I can be. You inspire in a quiet way that motivates all to be their best self." Another colleague commented:

> I see Renee always looking for ways to improve herself, her classroom, her school, and her district. This gives me the inspiration to improve myself and put the extra effort into my lessons to make them meet the needs of all of my students.

> Another teacher responded:
> You are amazing to me. With two small children at home you find a way to continue your schooling and are doing everything you can to reach you goals. "If Renee can do it, I can do it too," and honestly your inspiration is one of the things that keeps me going in my own master's program.

The MLQ data also show that both my teacher colleagues and I agree that I scored high in effectiveness. Effectiveness also constitutes certain factors as described by Avolio and Bass (2004).

- Am effective in meeting others' job-related needs.
- Am effective in representing their group to higher authority.

- Am effective in meeting organizational requirements.
- Lead a group that is effective.

In my leadership journal (December, 2010) I wrote, “The preschool teachers were very effective and their family nights this year are amazing. They work together well and always have the students’ interest in mind.” When asked during the MLQ what I can do to be more effective, a team member responded, “Can't really think of something at this moment. Keep up the great work!” Another teacher enthusiastically stated, “Renee is such a marvelous LEADER in our school!!! She is effective in every measure.” Furthermore, I discussed the effectiveness of my colleagues with the district curriculum director. She stated, “the preschool teachers were a great group to work with and she knew they would work well for this project.”

Finally, in terms of satisfaction as an outcome, it includes using methods of leadership that are satisfying and working with others in a satisfactory way. One colleague responded to the MLQ question: “What I admire most about this person's leadership is…” in this way: “She is very understanding of others’ needs and works with you in a way that is comfortable for you.” This leads me to believe that I have worked with the teachers in a way that was good for them and allowed them to contribute to the achievement of our low-income students.

To analyze my own ethical leadership, I asked staff during the interviews: “Do you feel that I’ve acted ethically and with integrity? What can you remember that I’ve done that illustrates this?” To this question, I received the following responses.

> I believe that you have acted both ethically and with integrity. As an assistant in your pre-school program, I watched you interact with both parents and students. You went over and above to meet both parent and student needs.

> In all of your work with the preschool, you have acted ethically and with integrity. Your observations last year were conducted professionally, as were your interviews with me. I was not able to attend all of the Reading Nights last year, but from what I saw, your interactions with parents and students also reflected this.
>
> Yes, you have acted ethically and with integrity. You approached the development of the pre-k reading night program with an open mind, sharing your thoughts and ideas, and considering the input of other staff members.

I also asked, "Have I put the interest of the students at the center of my decision making? What can you remember that I have done that illustrates this?" Here are examples of the responses that I received.

> Yes, I feel like the interest of the students is always the main purpose and goal. You also try to make sure that the families are informed and, when working with small children, that is key. One small example was the reading nights for the pre-k. I know the time of the event was in the evening so that parents could attend with their children and that was not the most convenient time for you, but you wanted as many children to participate as possible.
>
> The pre-k project was based on the success and improvement of student learning, so yes it seems you have put the students' interests at the center of your decision making. During the pre-k reading nights, age-appropriate activities were chosen and stories that engaged students in meaningful learning experiences and interactions with their parents.

Finally I asked, "Did I implement new interventions and create professional learning communities based on ethical decision making? How do you know?" Here are some examples of feedback I received, both during the interviews and on the MLQ survey.

"Renee has made ethical decisions throughout the change process. She has been respectful. She has also always kept the students at the center of the decision making process." Other teacher comments included, "reading nights …something we never did before," "loved her book club suggestion," "help us realize the importance to get the

family to read," "ethics are strong and she has a very objective and calming methodology that is empowering."

Based on my analysis of the data, I have concluded that my working hypothesis about my leadership can be sustained. I believe that I am an ethical transformational leader. I made ethical decisions that adhered to the ethics of justice, critique, care, and profession. I always put the students' needs first in every decision made within the project. I led the PLC as a transformational leader to hopefully create lasting change within the By-the-Sea School District. I also recognize my tendency to be transactional at times. I do adhere to the contingent reward feature, which is a transactional component, but there are times when I need to be more transactional. I can say that, for the most part, I am a transformational leader, but if situations call for me to be transactional, I will assert transactional leadership. Avolio and Bass state "…transactional leadership provides a basis for effective leadership, but a greater amount of Extra Effort, Effectiveness, and Satisfaction is possible from employees by augmenting transactional with transformational leadership" (2004, p. 21).

Through this project, I have found that it is acceptable to use both models of leadership based on the situation and staff. As a leader of this project, I feel it was important to understand the culture of the school and also the change process. I think studying culture and change have helped me become a better leader. It is important for effective leaders to have an understanding of the school culture to help them with any change process. Effective leaders also need to understand the concept of change, so they know why people resist change and how to overcome the resistance. I think I was

successful as a leader of the change process because I understood both the culture of the school and the concept of change.

While studying my leadership, I was able to triangulate my data by using MLQ data, interviews, and my leadership journal. These data gave me a solid foundation on which my hypothesis of being an ethical transformational leader was sustained.

Chapter 5

Conclusions and Recommendations

This project focused specifically on the needs of low-income preschool students and concentrated on closing the achievement gap among the SES subgroups within the By-the-Sea School District. Through the action research cycles I worked with 10 teachers and their classroom aides to help implement new intervention strategies that were designed to improve the skills of our low-income preschool and kindergarten students.

I facilitated the change and set up an open environment, where the teachers were able to make the necessary changes to their classrooms and school to better meet the needs of our low-income students. In addition to studying the process and outcomes of this preschool intervention project, I also studied the organizational culture of the Davis school (where the interventions were primarily involved), the process of change, as well as my own leadership as the project evolved.

Conclusions

Based on the data that I collected and my analyses, and my interpretation and understanding of these data and analyses, I offer the following conclusions regarding my original research questions.

The Action Research Kindergarten Interventions Project

To answer my first research question regarding the success of the project interventions in improving the literacy skills of low-income kindergarten children in the By-the-Sea School District and closing the achievement gap in literacy between low-

income kindergarten children and non-low-income kindergarten children in the By-the-Sea School District, I conclude the following:

1. Even though they were not all participants in the project, it is clear that the kindergarten students had significantly higher test scores than they showed as preschoolers. The data suggest that it is possible the interventions may have, at a minimum, influenced or contributed to these gains.

2. While the data do not suggest a significant difference between participants and non-participants based solely on post test score performances, the growth data does suggest that, while not significantly different, there are observable differences between participants and non-participants. Of course, the participants demonstrated greater growth (which is based on a comparison of pre and post data), which may be a sign of impact or effect.

3. Based on growth alone, for participants vs. non-participants, there were observable differences, although they were not statistically significant. Again, participants demonstrated greater (although not significantly greater) growth than non-participants in certain selected item clusters (e.g., syllables, phonemes).

4. Based on growth alone, for low-income participants vs. non-participants, the low-income participants demonstrated greater (although not significantly greater) growth than non-participants in certain selected item clusters (e.g., syllables, phonemes).

5. Again in terms of growth only, between those low-income participants who were in the differentiated instruction and technology instruction interventions, there are some data that suggest that those who were in the differentiated instruction class achieved

greater (although not significantly greater) growth in some areas than those who were in the technology classroom.

6. This suggests that we made some progress in closing the achievement gap between low-income students and their more advantaged peers. Finally, there is growth data that suggests that the low-income project participants achieved a greater (although not significantly greater) degree of growth than both the low-income non-participants and the non-low-income non-participants.

Organizational Culture and Change

Part of my second research question asked to what extent my understanding of organizational culture and change contributed to or influenced the implementation of the kindergarten interventions research project. My conclusions regarding culture and change as related to this action research are:

1. My understanding of the culture helped to facilitate the project because I was able to confirm my own insights about the school culture and then proceed with the planning and implementation of the change project. The data suggest that the culture and climate of the Davis School were positive, open, and receptive of change as evidenced by the culture survey where the majority of the staff agreed there is room for continuous improvement and lifelong learning.

2. I concur with Fullan (1993) that the change process is difficult. I used Monahan's 9-step Change model (2003) during the change process because I feel it is important to have a plan when making change. It is important that change leaders assess and understand the culture of a school as a prerequisite to introducing second order changes, so they can plan accordingly to address issues that may arise beforehand.

3. My leadership of the change process facilitated its success by being a team player and allowing everyone to have a voice as evidenced by my leadership interviews in which teachers expressed: “You approached the pre-k reading night program with an open mind, sharing your thoughts and ideas, and considering the input of other staff members.” I believe the change has been successful because the preschoolers have continued the reading night making them an even bigger event.

4. The differentiated instruction and technology intervention have not become a second order change at this time, but, as Fullan (2001) points out, it may take 5-8 years to fully accomplish second order change.

Leadership

My second research question also addressed my role as a leader, and specifically how my ethical transformational leadership contributed to or influenced the implementation of the kindergarten interventions research project. Given the preponderance of quantitative and qualitative data that I have collected in this study, I have concluded that my espoused theory of being an ethical and transformational leader has been sustained, at least in part. This is evidenced by the MLQ data, which showed I scored high in transformational leadership when scored by both my self-rating and the staff rating. However, I have further concluded that my leadership is situational, in that I have also observed some elements of transactional leadership as evidenced by my high score on the MLQ in the transactional characteristic, contingent reward, which I had not previously recognized. Finally, I have concluded that my leadership and commitment to acting ethically facilitated the success of the project, because the staff with whom I

worked was satisfied with my leadership, and they even felt that because of my leadership they put extra effort into the project.

Recommendations

Based on the data that I have collected, and the analyses that I have performed, as well as my interpretation and understanding of these data and analyses, and the conclusions that I have reached above, I offer the following recommendations.

Recommendations about Literacy Improvements for Low-Income Preschoolers

1. I recommend that school districts consider the implementation of the best practices of differentiated instruction and technology in their classrooms. The study suggests that the interventions may have helped low-income students gain literacy skills at a higher rate than students who did not receive these interventions. Teachers implementing differentiated instruction focus on the needs of individual students by creating activities that will help students succeed. This is important because today's classrooms are filled with a mix of ability levels, and it is imperative to teach children at their level, and then continue to challenge them to improve. Technology is rapidly becoming embedded in the culture of our society, and developing technology skills is important to prepare students for the future. When students use technology, they are more engaged in their learning, which may help them improve the skills that they need to be successful in the classroom, in school, and in life. I recommend that By-the-Sea school district continue to implement these interventions and, in the future, have all of the kindergarten classrooms implement differentiated instruction and technology.

2. I recommend that educators conduct action research projects to explore which best practices work with their students, because students learn in different ways and it is

our shared responsibility to help our students learn. By-the-Sea school district should continue to promote action research studies within the classroom and encourage teachers to present their findings. Something might work with one group, but the next year it might not work with another group of students. It would be beneficial to have a menu of interventions that worked with a particular make-up of students in the past.

3. I feel that By-the-Sea school district should continue with the interventions to create second order change. Five months of the interventions was not enough time to see a second order change, but the teachers are continuing the intervention for the rest of the year. Hopefully, they will continue the interventions next year with more grade levels getting involved.

Recommendations for Future Research

Future researchers might consider carrying out a similar study with a larger sample of students. Due to the small number of students in this study, it was not generalizable to other populations of kindergartners. A larger sample may show more significant results.

The data for this study may have shown more significant results if the interventions were in place for an entire school year; therefore, researchers might want to implement the interventions for a longer period of time. The five-month intervention period in this study may not have been enough time to determine the amount growth students experienced as a result of differentiated instruction and technology.

In addition to the interventions implemented in this study, researchers may want to implement additional interventions. There are many different best practices that could

be implemented. It would be interesting to see the outcomes of other best practices on student success.

In closing, I feel educators need to study practices that help our students succeed. If we keep doing what we have always done, we are going to get the same results. As teachers, we need to get out of our comfort zones and make changes to the education system and how we teach students to improve all students' skills. Students of different ethnicities, socio-economic backgrounds, and learning styles come to school to learn. It is our responsibility to look at each student and help that student succeed in school and in life any way that we can.

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