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THE IMPACT OF PRE-K PROGRAMS ON STUDENT ACHIEVEMENT AND  
INSTRUCTIONAL LEADERSHIP IN RURAL MISSISSIPPI SCHOOL DISTRICTS

A Dissertation  
Presented in partial fulfillment of requirements  
for the degree of Doctor of Philosophy  
in the Department of Educational Leadership  
The University of Mississippi

by

JEREMY E. STINSON

April 2011

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## ABSTRACT

In 2011, Mississippi continues to be the only state in the southern region without a single state-funded pre-k program (NIEER, 2007), and all preschool funds in the state are currently allotted to Head Start. Witte and Trowbridge (2004) warned that the combination of pre-k programs could be the reason for highly fragmented systems of state funding, policies, and regulations. The purpose of this mixed methods study was to investigate whether differences exist between preschool groups in three North Mississippi school districts and to determine the degree to which stakeholders in the programs practice instructional leadership. From a quantitative perspective, the STAR GE and STAR Est. ORF scores of 388 second graders were analyzed using a one-way ANOVA, and significant differences were found in academic achievement between all three groups of students who attended public school pre-k, Head Start, or no pre-k. From a qualitative perspective, the researcher followed a phenomenological approach to determine the degree to which 22 school instructional leaders collaborate to make decisions concerning their pre-k programs. The responses from four research questions indicate that traditional macro and micro-level roles of instructional leadership exist between administration and teachers, and collaboration between administrators and teachers dropped substantially after each program began. Trust and autonomy are strong and appreciated by the pre-k teachers, yet the teachers expressed a desire for ongoing collaboration with administration. Additionally, collaborative relationships need to be cultivated between public school programs and Head Start. Finally, several recommendations for further research and practice are suggested.

DEDICATION

the late Ricky Carter Stinson

*my father, my inspiration, my friend*

“Train a child in the way he should go, and when he is old he will not turn from it.”  
Proverbs 22:6

## ACKNOWLEDGMENTS

I want to begin by thanking my Lord and Savior Jesus Christ for the courage, grace, and endurance to press on through this dissertation journey. I shudder to think where I would be without you in my life as you care and provide so much on a daily basis for me and my family. Father, I thank you for the peace and fulfillment in knowing that I am following your will in the leadership path you have chosen for me. Please continue to guide my every decision as I fulfill your purposes for my life and help me to make the greatest contribution possible in the lives of the adults and children in my path.

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## **CHAPTER I**

### **INTRODUCTION**

The cognitive and non-cognitive aspects of pre-kindergarten (pre-k) are vital in developing and sustaining the knowledge and skills of students matriculating within the academic pipeline. The benefits of pre-k in preparing students for kindergarten are irrefutable, but the evidence of effects beyond kindergarten is elusive. Although southern states rank at or near the bottom in many areas of education, one of the most notable exceptions is having high-quality, early childhood education in the form of state-funded pre-k. The Southern Education Foundation (2007) affirmed that almost 20% of three- and four-year old children are enrolled in pre-k in the South compared to 8% in non-southern states. Southern states also boast the highest standards, all full-day programs, and most funded programs above the national average cost per child. Despite the endeavors of many of its neighbors, Mississippi is the only state in the southeastern region that has yet to fund a single pre-k program with state allocations (National Institute of Early Educational Research [NIEER], 2007). Investment in state-funded pre-k programs in Mississippi could reduce grade retention rates and crime, and create citizens who become active members to increase Mississippi's productivity, tax base, and quality of life (Southern Education Foundation, 2010).

As for non-cognitive components of pre-k, the overall quality of a pre-k program includes structural components, classroom experiences, and teacher credentials that can have a lasting impact on a child's skill set prior to kindergarten (Ackerman & Barnett, 2005). In a study of pre-k program quality, Clifford et al. (2005) found that although the pre-k programs they studied in

Georgia, Illinois, Kentucky, Ohio, California, and New York had met the standards put forth by the National Association for the Education of Young Children (NAEYC) for class size, adult/child ratios, and teacher certification, the programs varied considerably in teacher and classroom attributes and process quality. Pianta et al. (2005) found below average classroom quality and teacher-child interactions and a need for overall improvement in the classroom environment, especially the emotional climate. The authors found that most pre-kindergarten settings closely resembled elementary schools than child care centers in relation to distal features of programs, teachers, and quality.

Research on short-term cognitive effects of pre-k programs is overwhelmingly promising in developing early literacy and mathematics skills (Barnett & Jung, 2007; Barnett & Lamy, 2006; Gormerly, Gayer, Phillips, & Dawson, 2005; Hustedt, Barnett, Jung, & Thomas, 2007; Munoz, 2001; Wong, Cook, Barnett, & Jung, 2007). In a short-term assessment of Oklahoma's universal pre-k program, Gormley et al. determined that pre-k had a significant positive impact on the readiness to enter kindergarten for all ethnic groups including Caucasians, African Americans, Native Americans, and Hispanics regardless of their income brackets and had succeeded in preparing children to enter kindergarten. Munoz (2001) studied the cognitive effects of a program in Kentucky called Jump Start, which included 4,000 students from Head Start, Even Start, and a pre-k program mandated by the Kentucky Educational Reform Act (KERA), to a comparison group with no pre-k experience. The author concluded that students in the state-funded portion of the Jump Start program (KERA) outperformed all other students in both reading and mathematics.

The results of longitudinal pre-k studies include some positive cognitive effects on academic achievement, but questions abound related to the strength of the effects after the

kindergarten year of school (Hustedt, Barnett, & Jung, 2008; Hustedt, Barnett, Jung, & Thomas, 2007; Jones, Gullo, Burton-Maxwell, & Stoiber, 1998; Yao, 2008). For instance, Fitzpatrick (2008) studied the long-term effects of the availability of Georgia's universal pre-k program, a pre-k program available to all, and its effect on student achievement. The author found that math and reading scores of rural, disadvantaged students increased the most compared to other groups, and these students were the most likely to be on grade level for their age. In a study of one Virginia school district's Early Start program targeting at-risk four-year olds, McElroy (2007) found no positive affect on English and mathematics through the third grade.

Overall, the aforementioned studies of the cognitive and non-cognitive components of pre-k reveal that much work is needed to improve the quality of pre-k programs throughout the United States. Even still, many pre-k programs are effective in increasing academic achievement during the kindergarten year. Questions still remain concerning the sustainability of the impact of pre-k given that many studies reveal mixed results or no differences at all among those who attended pre-k and those who did not.

### **Statement of the Problem**

School districts in the state of Mississippi receive no financial support from the state for their pre-kindergarten programs. In fact, Mississippi is the only state in the southern region without a single state-funded program (NIEER, 2007). Each year the intent of the Governor to contribute funds into already existing programs, such as Head Start, overrides the ideals of the Board of Education and the Superintendent of Education to pilot pre-k programs (Office of the Governor, 2007, 2008). Though these pilot programs are not funded through the state of Mississippi, most have similar characteristics of state-funded pre-k programs of other states such as a high-quality standard curriculum, low pupil-teacher ratios, high education levels of teachers

and assistants, and full-day programs. Therefore, it is important to understand how the short and long-term cognitive effects of rural pre-k programs like those in Mississippi contribute to the research and inform local, state, and federal policy. With that said, the three school districts in this study were chosen because they have well-established programs representative of the types of state-funded pre-k programs available in other states. Pseudonyms are used for all school districts in this dissertation study to maintain confidentiality and protect the anonymity of each site and include: Lewis School District (student population 2,001-3,000); Overlook School District (student population 3001-4000); and Southern School District (student population 4,001-5000). More demographic data concerning each school is forthcoming in Chapter III of this study.

### **Purpose Statement**

The purpose of this mixed methods study is to examine the impact of pre-kindergarten on academic achievement and instructional leadership. More specifically, the study determines differences in reading comprehension and oral reading fluency scores among students who attended pre-k, Head Start, and those who attended neither. The two dependent variables for the quantitative portion of this study are reading comprehension and oral fluency scores, and the single independent variable is pre-k status. The instructional leadership role among administrators and teachers, specifically the collaboration aspect, is investigated as well. The degree to which administrators and teachers in Mississippi schools collaborate to make more synergistic decisions in addressing the early literacy skills required for students to become more fluent and comprehend more efficiently will be explored.

In essence, the quantitative portion of this mixed methods study highlights the impact of preschool experience on second grade reading comprehension and oral reading fluency scores.

The researcher will determine whether or not differences in reading fluency and comprehension exist beyond the kindergarten year of school between the following pre-k status groups: pre-k (formal pre-k in a public school setting); Head Start (public and private non-profit and for-profit agencies who provide comprehensive child development services to economically disadvantaged children and families); no pre-k (no formal pre-k experience or a preschool experience different from the pre-k and Head Start groups in this study). In the qualitative portion of this mixed methods inquiry, the researcher will explore the extent to which pre-k teachers and district and school administration collaborate to improve early literacy instruction to increase reading fluency and comprehension. Focus groups of superintendents, deputy superintendents, federal programs directors, principals, assistant principals, lead teachers, and pre-k teachers were assembled to examine the importance these Mississippi educators place on collaboration as a valuable component of instructional leadership.

### **Research Hypotheses and Questions**

The quantitative portion of this dissertation study includes two separate hypotheses to determine if differences exist in reading comprehension and oral reading fluency scores among the three sample groups. Research questions related to instructional leadership in pre-k were posed to focus groups for the qualitative portion of the study.

**Quantitative hypothesis one.** There is no significant difference in the mean STAR Grade Equivalent (GE) by pre-k status.

**Quantitative hypothesis two.** There is no significant difference in the mean STAR Estimated Oral Reading Fluency (Est. ORF) by pre-k status.

**Qualitative research questions.** A phenomenological approach was used to collect data through homogeneous focus group interviews based on the following research questions:

1. How is instructional leadership characterized in your school?
2. What aspects of instructional leadership are the most and least beneficial? Why?
3. In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?
4. When collaborating with others concerning early literacy instruction, what specific instructional steps are taken to ensure fluency and comprehension?

### **Limitations and Delimitations**

There are several limitations and delimitations that should be mentioned for this study. The researcher will not control for different intellectual and academic abilities among participants as students begin this study with different background experiences and economic situations. The groups at Southern and Overlook School Districts would be considered heterogeneously grouped because their selection process requires inclusion of students with all different types of abilities. The enrollment at Lewis School District, however, typically involves middle to upper class families who pay tuition for their children to attend the pre-k program. Also, a purposeful sample and only a post-test were used, which may have affected selection bias. With that said, caution needs to be used when generalizing results to the population (Creswell, 2009). Additionally, Overlook pre-k students attend a half-day program, and pre-k students at Lewis and Southern attend full-day programs. Inasmuch as the No Pre-K Group consists of students who have had no formal pre-k background and students who may or may not have had private preschool experiences, the purview of this research does not require the researcher to disaggregate such data. Finally, the ability to identify the true causality of any noted differences between academic performance and pre-k experience may be limited. The limitation is due to other confounding

factors such as level of parental involvement, readiness before entering preschool, preschool program quality, teacher quality, gender, ethnicity, and socio-economic status.

### **Definition of Terms**

Head Start – A program that “provides grants to local public and private non-profit and for-profit agencies to provide comprehensive child development services to economically disadvantaged children and families, with a special focus on helping preschoolers develop the early reading and math skills they need to be successful in school” (Office of Head Start, 2009).

Kindergarten Readiness Test (KRT) – an assessment that assists in determining a student’s readiness for beginning kindergarten and includes vocabulary, identifying letters, visual discrimination, phonemic awareness, comprehension and interpretation, and mathematical knowledge (Anderhalter & Perney, 2006)

Longitudinal Effects – any effects of preschool education beyond the kindergarten year

Oral Reading Fluency – “Fluent reading comprises three key elements: *accurate* reading of connected text at a conversational *rate* with appropriate *prosody* or expression.” (Hudson, Mercer, & Lane, 2000).

Preschool – education of three or four year old children including public pre-kindergarten, private pre-kindergarten, private daycare, and Head Start

Private Daycare – centers not affiliated with public education and funded by tuition, private donations, and/or government subsidy

Private Pre-Kindergarten – any pre-kindergarten program not affiliated with public education and funded by tuition and private donors

Short-Term Effects – any effects of preschool education by the end of the kindergarten year

State-Funded Pre-Kindergarten – a full-day program that serves four year olds for five days each week and is funded, controlled, and directed by the state (NIEER, 2007)

STAR Grade Equivalency (STAR GE) – a norm-referenced score on the STAR Reading Computer-Adaptive Reading Test that “indicates the grade placement of students for whom a particular score is typical.” For example, if a student scores 2.7 GE it indicates the student reads as well as a second grader in the seventh month (July) of school from the norm group (Renaissance Learning, Incorporated, 2010).

STAR Estimated Oral Reading Fluency (STAR Est. ORF) – “an estimate of a student’s ability to read words quickly and accurately to comprehend text efficiently” (Renaissance Learning, Incorporated, 2010).

### **Significance of the Study**

Questions remain whether or not state-funded pre-k is worth the investment for the long-term in the rural state of Mississippi. Therefore, the significance of the study is to inform the elusive research on the long-term effects of pre-k and to determine the degree to which instructional leadership occurs in pre-k programs. In the quantitative portion of this mixed methods study, three pre-k programs in northern Mississippi funded through alternative means were studied to determine whether there is a difference in student achievement between students who attended pre-k, Head Start, and those who attended neither. Specifically, oral reading fluency rates and reading comprehension scores in the middle of the second grade year were measured and compared. Although some local data and surveys of those attending the pre-k programs in the three rural, Northwest Mississippi towns exist, no longitudinal effects have been measured. The perceptions of the instructional leadership role of administrators at the macro level and teachers at the micro level were explored to determine leadership trends in these pre-k

programs. Specifically, the degree to which administrators and pre-k teachers collaborate about issues such as early literacy was the focus.

### **Organization of the Study**

Chapter I includes a general overview, statement of the problem, purpose statement, research hypotheses and questions, and limitations and delimitations. The chapter concludes with definitions of terms, significance of the study, and organization of the study. Chapter II is the review of related literature and begins with a historical synopsis of pre-k in the United States followed by a portion summarizing the short and long-term cognitive and non-cognitive effects of pre-k. The remaining sections include Mississippi perspectives of pre-k, the role of instructional leadership in the pre-k process, and oral reading fluency and comprehension in the reading process. Chapter III is a methods section and includes research procedures, site demographics, design of the research study, research hypotheses and questions, and data collection measures. The chapter concludes with information regarding the research instrument and protocol and statistical tests and data analysis.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

Chapter II examines the literature related to state-funded pre-k, oral reading fluency and comprehension, and instructional leadership in public schools. The pre-k literature review includes historical perspectives, short and long-term effects on cognitive and non-cognitive outcomes, programmatic efforts in Mississippi, instructional leadership collaborative components, and the effects of oral reading fluency and comprehension (Southern Education Foundation, 2007; Hustedt, Barnett, Jung, & Thomas, 2007; Yao, 2003; NIEER, 2007; Blase & Blase, 2004; Missall et al., 2007). The historical perspectives include information about early childhood education from each decade beginning in the 1960s to current trends in the twenty-first century. The summary of the cognitive and non-cognitive effects of pre-k is convincingly strong in the short-term but not as compelling as students' progress beyond kindergarten. The literature concerning pre-k in Mississippi pertains to the political and budgetary constraints surrounding the lack of state-funds for programs. Collaboration as a component of instructional leadership is discussed, including the stark realities of limited collaboration in schools. Finally, the literature related to fluency, comprehension, and pre-k education is examined.

#### **Historical Perspectives on Pre-Kindergarten and Head Start**

The ideals of learning and readiness in early childhood were influenced by many different policies and other factors depending on the time of inception (Witte & Trowbridge, 2004). In 1965, President Lyndon Johnson signed legislation related to early childhood to aid in combating the War on Poverty. The overarching goal of the legislation was to give students

from poverty a head start with a program by the same name. Head Start was designed to provide part-day, part-year, comprehensive services to children three to five years of age and their families. The program has never been fully funded and still today only serves less than 50% of eligible children in the United States.

As indicated by the Southern Education Foundation (2007), state-funded pre-k programs began to flourish during the 1980s and 1990s. Longitudinal large-scale studies, such as the High/Scope Perry Project and the Abecedarian Project, brought to the forefront the positive impact of preschool intervention on children from poverty. By the end of the 1990s, brain research indicated the need for nurture, interaction, and stimulus before the age of five to promote learning at later ages. Witte and Trowbridge (2004) denoted that pre-k programs usually were a half-day in length, and the primary candidates on which states focused were four-year-old students considered to be the states' poorest or most at-risk children. A loosely enforced set of guidelines was the norm rather than state standards or regulations. Most teachers were certified in elementary education but lacked the early childhood endorsement. The opposite is true for pre-k programs today as trends evolve toward offering full-day programs, higher standards, quality, and increased degree expectations of those who teach the nation's youngest children.

As reported by Witte and Trowbridge (2004), President Bush's 2002 initiative Good Start, Grow Smart called for more curriculum accountability aligned to state K-12 standards and an upgrade of education and training of staff within the Head Start program. Head Start also serves younger children, and some serve working families with full-day, full-year programs through direct funding or Child Care and Development Fund (CCDF) vouchers. According to the Office of Head Start (2008), the program was appropriated \$96 million during its inaugural

year and enrolled 561,000 students. Today, Head Start serves 908,412 students and is appropriated almost \$7 billion annually, an average cost per child each year of \$7,326.

Though Head Start and pre-k programs were initially intended to help fight the War on Poverty, Witte and Trowbridge (2004) attributed this mixture of programs to be the reason for a highly fragmented system of funding, policies, and regulations. In contrast, the Southern Education Foundation (2007) argued that each state's early childhood services has a real, promising role, but state-funded pre-k provides the best comparative advantage in terms of academic and economic gains.

State-funded pre-kindergarten is a relatively new concept in the scope of educational history. According to *The Preschool Yearbook* (National Institute for Early Education Research [NIEER], 2007), Wisconsin and New Jersey were the only two states with programs prior to 1960. Four more states came on board by the 1970s, and by the end of the 1980s, twenty-two programs were in existence. By the late 1990s, sixteen more states added state-funded pre-kindergarten, for a total of 38 by 2000. There are currently 12 states with no state-fund pre-k programs: Alaska, Hawaii, Idaho, Indiana, Mississippi, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Utah, and Wyoming (NIEER, 2007).

Most southern states rank at or near the bottom in regard to most matters of education, but one monumental exception to the rule is that of high-quality, early childhood education in the form of state-funded pre-kindergarten. The Southern Education Foundation (2007) affirmed that almost 20% of three- and four-year-old children are enrolled in pre-k in the South compared to 8% in non-southern states. Southern states also boast the highest standards, all full-day programs, and most funded programs above the national average cost per child. Georgia and

Oklahoma have ranked at the top nationally for several years in quality and enrollment, and Arkansas has recently emerged as a new national pre-k leader based on preliminary studies.

### **Short and Long-Term Effects of Pre-Kindergarten on Cognitive and Non-Cognitive Outcomes**

The results of most studies measuring the short-term effects of pre-k on academic achievement to the end of the kindergarten year are convincingly positive (Barnett & Lamy, 2006; Hooks, Scott-Little, Marshall, & Brown, 2006; Hustedt, Barnett, Jung, & Thomas, 2007; Wong, Cook, Barnett, & Jung, 2007). One such study occurred in the state of Arkansas, which is considered to be one of the up and coming leaders of state-funded pre-kindergarten. The first year of Arkansas' Better Chance (ABC) Program was assessed by Hustedt et al. (2007), which compared receptive vocabulary, early literacy, and early math skills of 500 students who had ABC (preschool group) the previous year and 500 who had just enrolled in ABC (no preschool group). A rigorous research design known as regression-discontinuity design (RDD) was used to eliminate the possibility of a biased study. The ABC program was found to have a statistically significant effect on students' early language, literacy, and mathematical development. Specifically, the researchers found 31% or four months additional growth of the preschool group in receptive vocabulary, a strong predictor of general cognitive abilities and future success in reading. In math, the preschool group showed 37% more growth in measures such as number concepts, addition, subtraction, telling time, and counting money. Print awareness scores of the preschool group more than doubled at an increase of 23%. The authors concluded that this study is likely to produce lasting effects related to school success and advantages in reading and mathematics.

An RDD design also was used to measure effects of pre-k programs on receptive vocabulary, mathematics, and print awareness skills in five states: Michigan, New Jersey, Oklahoma, South Carolina, and West Virginia. Wong et al. (2007) selected the states because they have higher quality program standards, concepts, and staff on average than those not studied. In all, 2,788 students for the preschool treatment group and 2,453 for the non-preschool treatment group were included across the five states. The final effect was positive in 13 out of 14 causal coefficients, eight (8) of which were statistically significant. The authors admitted that such positive outcomes are more than would be expected by chance. Specifically, four (4) out of five (5) states showed positive gains in receptive vocabulary with New Jersey and Oklahoma yielding significant results. The greatest impact was in print awareness in which all five states resulted in positive outcomes with four (4) of the five (5) outcomes considered reliable in Michigan, New Jersey, South Carolina, and West Virginia. The math results for the multi-state study showed positive results but only results in Michigan and New Jersey were deemed reliable.

Wong et al. (2007), concluded that pre-k programs were found to have positive effects on students' cognitive abilities though the magnitude varied according to each state's program and outcomes. Some of these differences included age range of children, length of day, and education level of the teacher. The authors concluded that even though it was difficult to extrapolate differences from the five states to the nation at large, they stated, "effective programs can be found across the range of variation found in these particular states...this is itself considerable even if truncated at the lower end" (Wong et al. 2007, pp. 33-34).

For some states, the question is not whether pre-k affects children in the short-term, but rather how much pre-k is needed to enhance the effect. Barnett and Lamy (2006) addressed the

common questions as to how one or two years of preschool enrollment affects achievement in vocabulary development, literacy, and math skills once the student enters kindergarten, especially students from disadvantaged backgrounds. A sample of 1,372 students was taken from 21 schools in the Abbott School District in New Jersey. Students were assessed for IQ, cognitive ability, vocabulary size, mathematics skills, phonological awareness, and print awareness. A significance difference in receptive vocabulary was found among students who attended preschool for two years compared to those who attended for one year. A slight, non-significant difference in receptive vocabulary was noted between those who attended for one year and those who attended no preschool. The authors report no significant increase in phonological awareness scores. The mathematics and print awareness scores indicated a significant difference between those who attended preschool and those who did not, but no significant difference was found between those who attended one and two years of preschool. The New Jersey study informed both lawmakers and school officials as they continued to debate the importance of preschool and whether a child should enter at three or four years old. The research emphasizing the significance of offering preschool to minorities, especially Hispanics, and students from disadvantaged backgrounds is strengthened and validated by this study. The effects of pre-k were significant regardless of whether a child attended for one or two years, and vocabulary was of the greatest benefit to children who attended pre-k for two years compared to only one year.

Structural features of pre-k programs and the relationship of those features to other pre-k attributes and to the population of children and families served were explored by Clifford, Barbarin, Chang, Early, Bryant, & Howes (2005). Data from the Multi-State Study of Pre-Kindergarten by the National Center for Early Development and Learning (NCEDL) were used

in their exploration. Forty schools in Georgia, Illinois, Kentucky, Ohio, California, and New York were chosen based on diversity of structural features. Four children from each of the 240 randomly selected classrooms were randomly selected for the study, and multiple assessments of language and pre-literacy were administered. Extensive classroom observations were implemented using the Early Childhood Environment Rating Scale – Revised (ECERS-R), a measure of global classroom process quality increasing from one to seven, with seven being the highest score. A questionnaire adapted from other well-established studies, such as the U.S. Census and the National Institute of Child Health and Human Development Study of Early Child Care, was given to teachers, parents, and administrators.

Overall, results by Clifford et al. (2005) indicated that programs varied considerably in structure and program quality despite the fact of having met the standards put forth by the National Association for the Education of Young Children (NAEYC). The researchers found diverse differences in social, linguistic, and economic factors of families served, primarily due to varied criteria for states' pre-k programs. Eighty-one percent (81%) of the classrooms scored in the minimal range on the ECERS-R within the range of 3-4.9. Researchers did find that the teacher-student ratio of 1:8 is comparable to the NAEYC standards of 1:10. Most pre-k teachers in the study had earned bachelor's degrees and early childhood endorsements, a trend that is even more common in programs housed in actual schools. Even though most pre-k programs had guiding principles, part-day pre-k was less likely to have a curriculum than full-day programs. Although pre-k teachers in the study represented the U.S. population in relative comparison, pre-k children were twice as likely to be African American or Latino as their teachers. Finally, the authors mentioned that most pre-k programs are intended to help close the achievement gap, but the at-risk students are most taught by the least qualified staff members.

In a related study that also used data from the Multi-State Pre-Kindergarten Study, Pianta et al. (2005) analyzed the extent to which a program's attributes predicted classroom quality and teacher-child interactions. Forty classrooms in each of the six states previously mentioned were included, and predictions of child competency were assessed using the ECERS-R, a measure of overall classroom attributes and teacher-student interactions. The second assessment was the Classroom Assessment Scoring System (CLASS), a measure of the nature and form of the emotional and structural climate of the classroom. The third assessment, called Emerging Academic Snapshot, explored the nature and variety of activity settings to indicate the teacher's overall approach to program curricula. Teachers were asked to participate in a questionnaire to assess demographics, beliefs about children, and depressive symptoms. The questionnaire was the Modernity Scale, which is Likert in nature and contains a scale of 1 (do not agree) to 15 (strongly agree). The ECERS-R scores for the study by Pianta et al. (2005) aligned with the findings of the same factors from the previous study (Clifford et al., 2005) by revealing below average scores, even though improvement was shown in the overall mean. The CLASS assessment revealed overall improvement needed in the classroom environment, especially the emotional climate.

The South Carolina Department of Education sought evidence to support the effectiveness of their initiative to increase the quality of its pre-kindergarten and kindergarten classrooms throughout the state. The State Department of Education chose the ECERS-R to evaluate the quality of its programs through a study conducted by Hooks, Scott-Little, Marshall, and Brown (2006). The overarching goal of the study was to determine whether efforts to train and educate teachers is enough to improve program quality and meet accountability requirements or if more is needed to enhance professional practice. In the spring of 2004, one-third (N = 68

classrooms) of the four- and five-year-old classrooms were randomly selected from 20 primary schools. The process was repeated in the spring of 2005 in 21 schools (N = 76 classrooms) to determine change during the past year. Sixteen of the aforementioned schools were examined during both spring of 2004 and 2005. The ECERS-R revealed that quality increased from 4.4 in the spring of 2004 to 5.61 in the spring of 2005, just above the acceptable level of 5 (good). Teachers from the schools were surveyed to assess their perceptions of quality change between the two observations. The study concluded that accountability requirements, training, and support create positive changes within classrooms. The authors concurred that even though the instrument used had been an effective tool for rating the quality of the program, the instrument alone certainly would not create lasting, continuous improvement.

All of the aforementioned studies revealed compelling evidence that children benefit most from pre-k programs of the highest quality. One could argue that programs of poor quality programs may even be harmful, creating an even more urgent need for studies such as the one by the state of South Carolina to ensure that the needs of pre-k children are being met effectively and that taxpayer money is being spent efficiently. The study by Hooks et al. (2006) proposed that other components, such as team meetings, mentoring, and consultation are also necessary for sustained, high quality pre-k programs. The study by Pianta et al. (2005) could be influential to decisions by lawmakers related to teacher and classroom ecology that are predictors of high quality programs. Just knowing that quality is most closely related to proximal teacher and child characteristics helps legislators and school administrators know where to concentrate funds for maximum quality enhancement. The study by Clifford et al. (2005) also could impact school administrators and politicians at the federal, state, and local levels in making the most informed decisions about implementing quality pre-k programs. One such implication is that decision

makers must liberally fund programs that encourage teachers to hold a bachelor's degree to increase the likelihood of providing high quality instruction. Incentives, such as higher pay, could be offered to those willing to teach in critical needs areas of each state to ensure high-quality teachers in each classroom. The study represented over half of all pre-k children in the United States. The low scores on the ECERS-R indicated that intense work is needed to develop higher quality programs. Although the study by Clifford et al. (2005) highlighted diverse characteristics of pre-k programs and some relationships to the communities served, the authors recommended further quality studies of full-day programs because a large number of programs in their study were part-day programs.

As accountability continues to be at the forefront of education, states are more interested than ever in establishing new pre-kindergarten programs or enhancing the quality of those such as Head Start that are already in place. The aforementioned studies are beneficial components for informing school administrators and lawmakers of vital non-cognitive aspects to consider before making long-term investments into any pre-k program.

Evidence of the longitudinal effects of pre-kindergarten, the years following kindergarten, is considered varied at best in terms of the degree to which programs affect long-term learning. In the highly regarded ABC program in Arkansas, the results of the second year of a five-year longitudinal study are promising though not as convincing as the kindergarten year. Hustedt, Barnett, and Jung (2008) found classroom quality and support for literacy to be considered good quality but found limited support in the classroom for math. For the beginning of kindergarten, statistical significance was reported for receptive vocabulary, mathematics, and early literacy when cohorts of students that had pre-kindergarten and those that did not have pre-kindergarten were pooled together. When the cohorts were analyzed separately, results varied

slightly but still showed significant improvement among the pre-k group in 5 out of 6 instances.

Hustedt, Barnett, and Jung (2008) compared the conventional results of this study to the RDD from the 2007 study and found substantial biases in the conventional results ranging from 35% to 69% reduction. This finding resulted in several changes and realizations for subsequent studies of the ABC program. Results were re-evaluated and mathematically adjusted for the magnitude of selection bias at the beginning of kindergarten. At the end of kindergarten, no difference was found in math or literacy, but pre-k students scored higher in vocabulary than those who did not attend pre-k in both separate and pooled analyses. At the end of first grade, ABC students scored higher in the Calculation and Applied Problems sub-sections and significantly higher in the Broad Math Battery than the No Pre-K Group. No difference among groups was found in Math Fluency. In literacy, ABC students scored higher in Letter-Word Identification and Basic Reading, but no difference was found in Word Attack Skills. There is clear evidence that the ABC program is positively impacting Arkansas students compared to those who were not enrolled, especially when entering kindergarten. This impact continues through first grade, though not as consistently strong. Still, significant effects in math and literacy were found at the end of first grade and are considered extremely positive results according to Hustedt et al. (2008).

Jones, Gullo, Burton-Maxwell, and Stoiber (1998) studied 91 first graders in a large urban district where some had attended pre-k and others in the study had not. The authors examined the cognitive and social effects of pre-k on students' first grade year and whether a transition from another school affected these outcomes. Interestingly, the study concluded that students having pre-k did have significantly higher holistic and procedure scores in math than their counterparts that attended only kindergarten, but no significant difference was found in

reasoning, concept knowledge, and communication. In language, students with pre-kindergarten experience did have a significantly higher response to reading scores than those that only attended kindergarten. Those students that attended pre-k and first grade in the same school scored significantly higher academically than those pre-k students who transitioned from nearby schools for first grade. The authors found that those who transitioned for first grade had significantly higher social skills than those who attended pre-k and first grade in the same school. Jones et al. used their study to advance the idea that students who attended pre-kindergarten were at an advantage academically and socially compared to peers who had no preschool experience. The results of this study concur with other studies showing significant positive results in kindergarten, but like the study by Hustedt, Barnett, & Jung (2008), results are somewhat mixed though still positive in regard to academic achievement. According to Jones et al., their study could indicate the relevance of continuity within the same school for a child's early education. The authors were quick to point out that more longitudinal studies are necessary to determine lasting effects of pre-kindergarten experiences over time.

The effectiveness of South Carolina's Early Childhood Development Program was studied by Yao (2003) to determine longitudinal academic achievements for those students who participated in the program compared to non-participating students. Yao studied the cognitive effects of pre-k on the 9,977 students who participated in preschool compared to a randomly selected comparison group of 7,889 who did not participate. In general, students chosen for the preschool program were considered to be at greater risk of failure based on significant readiness indicators. The comparison group members were eligible for free or reduced lunch but were considered to have a lesser degree of risk than those who attended preschool. Yao first hypothesized that students having preschool would perform equally well with those who did not

attend preschool according to standardized tests, and that no academic differences in demographics between the two groups would be found. The first hypothesis was rejected given that students who attended preschool scored higher on the first-grade Cognitive Skills Assessment Battery, second grade Metropolitan Achievement Tests - Seventh Edition, and third grade Palmetto Achievement Challenge Tests than those who did not attend preschool.

The second hypothesis by Yao (2003) predicted that all children from the preschool program would perform equally well on standardized tests from grades one through three. Asian and Caucasian students consistently outperformed African American students, and those eligible for free or reduced lunch showed less gain; therefore, the second hypothesis was also rejected. The final hypothesis in Yao's study held true and stated that there would be no academic performance differences between those students who attended half-day programs compared to those who attended full-day programs.

Yao (2003) made a convincing argument that pre-k programs, such as the one in South Carolina, should increasingly be funded and available for all children. Students who attended preschool outscored those who did not attend preschool, even though those who attended preschool were considered to be severely lacking many of the school readiness indicators. States wanting to initiate or enhance pre-existing programs could use the following recommendations for sustaining pre-k over time: (a) adequate infrastructure; (b) a continuum of independent research for evidence-based analysis and decision making; (c) meaningful collaboration among all early childhood entities within a community (The Southern Education Foundation, 2005).

### **Mississippi Perspectives on Pre-Kindergarten and Head Start**

Traditionally, Mississippi has relied heavily on private child care and Head Start to prepare its children for elementary school. The two major programs continue to target mostly

students from low-income families or those considered to be at-risk. Until recently, the state of Mississippi spent only federal funds for Head Start and supplemented no state funds. As cited by NIEER (2007), Mississippi has for many years ranked high for Head Start federal funding on a per-capita basis and boasts the largest number of four-year-olds in Head Start nationally.

According to The Office of the Governor (2008), it was not until the 2008 legislative session that Governor Haley Barbour signed a law providing additional funds for private child care and Head Start programs.

The value systems of how preschool-age students should be educated in the state of Mississippi differed significantly between Governor Haley Barbour and former State Superintendent of Education Dr. Hank Bounds. In his 2007 and 2008 State of the State speeches (Office of the Governor, 2007, 2008), Governor Barbour called for funding of the private child care and Head Start programs that were already in existence. Governor Barbour's intent was to help improve and expand educational content of these programs. The governor claimed that his decision was the most logical because private and Head Start centers already serve 80% of four-year-olds in the state. In 2007, Barbour included a \$1 million pilot program of a small-scale early childhood program, only to axe the proposal just a few months later. Although Governor Haley Barbour's plan was not as boisterous as Dr. Bound's \$10 million initiative of 88 pilot programs in 2007 nor the \$20 million proposal in 2008, the plan would have been an historic accomplishment for the state and an initial step toward universal pre-k for all students. As previously mentioned, Mississippi is the only state with no state-funded pre-k program in the southern region, which boasts the highest number of state-funded pre-k programs in the nation (NIEER, 2007). Mississippi continues to pour all allotted funds for early childhood education into Head Start with no consideration of pilot pre-k programs.

In the modern age of school accountability, school administrators in the state of Mississippi are beginning to understand the importance of funding, regulating, planning, and supporting high-quality pre-k programs. Although the state of Mississippi has yet to allocate funds for pre-k programs, many schools are innovatively offering such programs. As explained by the superintendent of one of the school districts involved with this study (Personal Communication, July 14, 2008), funds from the federal Title I program and/or local revenues are being used to pilot programs all across the state to make at least a minuscule effort to create high-quality opportunities for children to develop the language, cognitive, mathematical, and social skills needed for the primary school years.

### **Oral Reading Fluency and Comprehension in Pre-Kindergarten**

Oral reading fluency is a strong indicator of reading quality and a strong predictor of reading comprehension, and it follows decoding (letter-sound relationships) as the next step of a child becoming a proficient reader (Hudson, Lane, & Pullen, 2005). The elements of oral reading fluency were highlighted by Hudson et al. (2005) and included accuracy, rate, and prosody. A student who displays accuracy in reading has the ability to recognize or decode words, which indicates a strong alphabet principle, sound blending ability, and a large bank of high frequency words. The rate at which a child reads includes the automaticity, speed, and fluidity of the reader and allows more cognitive effort to be used for reading comprehension. Prosody indicates the rhythmic and tonal aspects of reading and the use of expression, which collectively indicates that the reader understands what is being read.

The predictive validity of early preschool literacy skills on oral reading fluency in first grade was noted by Missall et al. (2007). The authors emphasized the importance of laying a solid foundation of early literacy skills such as phonological awareness, concepts of print, and

alphabetic principles to efficiently and effectively learn additional reading skills such as oral reading fluency in the later grades. A significant correlation was found between preschool measures of the Early Literacy Individual Growth and Development Indicators (EL-IGDI) and the first grade Reading Curriculum Based Measurement (R-CBM). The EL-IGDI measured components of preschool education, and the R-CBM was a first grade measure of the number of words read correctly in one minute.

Wang et al. (2008) also examined the fluency development of different groups of urban/suburban second grade students in the southeastern region of the United States. Fourteen schools were randomly chosen from which 668 students had fluency scores considered at-risk and 485 scored at benchmark reading performance. Analysis of variance with repeated measures (ANOVR) was used to compare fall, winter, and spring fluency rates among gender, ethnicity, and reading status groups. The benchmark group scored significantly higher than the at-risk group. The authors found statistical significance between ethnicity and reading fluency status, with Asian and European American students scoring at the benchmark level and Hispanic students scoring as at-risk. Caucasian students scored significantly higher than African American students and African American students scored significantly higher than Hispanic students. Statistical significance was also determined between gender and fluency status, with more girls scoring at the benchmark level and boys scoring in the at-risk range. When the authors tested gender and ethnicity, no statistical significance was found between the groups.

According to Wang, Porfeli, and Algozzine (2008), determining a child's fluency rate can be a good indicator of generalized outcome measures such as high-stakes standardized tests. The potential for oral reading fluency practice to improve reading comprehension performance on standardized tests was also explored by Baker et al. (2008) in a study of Oregon *Reading First*

schools. Four cohorts of approximately 2,400 first through third grade at-risk students were chosen, and a moderately high correlation of .60 to .80 between oral reading fluency and commercially available standardized tests was found.

### **Summary of the Literature Review**

Historically, pre-k education is a concept that has gained clout over the years, though doubts still remain whether the benefits are worth the investment. The aforementioned studies regarding the short-term effects of pre-k are overwhelmingly positive, but questions loom regarding the effectiveness of pre-k in the long-term. Though oral reading fluency has not always been respected as a vital link in the reading process, it is now regarded as one of the five elements of the reading process. Still, there are very limited studies to determine the impact pre-k has on oral reading fluency and reading comprehension. As for pre-k in Mississippi, political squabbles and budgetary constraints plague discussions of pre-k education, and Mississippi continues to be the only state in the Southeastern region without some form of state-funded pre-k (NIEER, 2007). The following chapter will set forth the necessary steps and procedures to successfully implement the quantitative and qualitative components of this mixed methods study.

## **CHAPTER III**

### **METHODS**

Chapter III addresses specific steps that will be used to execute the research study on the effects of pre-k in rural Mississippi schools on oral reading fluency and comprehension and how these schools collaborate internally concerning early literacy instruction. The steps include research procedures, site demographics, design of the research study, research hypotheses and questions and data collection measures. The chapter concludes with information regarding the research instrument and protocol, as well as the statistical tests and data analysis.

The research procedures provide an overview of the specific steps required to carry out the study. The site demographics provide a rich description of the qualities of each school in the study. The design of the research study explains the type of study and includes purpose statements. Two hypotheses are included for the quantitative portion of the study and four research questions are proposed for the qualitative portion. The data collection portion explains how the researcher will collect the data from the perspective schools. A description of the research instrument and the protocol used to successfully utilize the instrument is presented. Chapter III concludes with a discussion of the statistical tests needed to implement the study and the data analysis required to attain accurate results.

#### **Research Procedures**

The researcher has obtained approval from the dissertation committee members and the Institutional Review Board (IRB) at the University of Mississippi. The IRB document includes verbal consent from superintendents in the targeted school districts. Parental and participant

consent and child assent forms are unnecessary for this study because all identifiers have been removed from the data set. Once approved by the superintendent and IRB, the principals were then informed of the study and a request was made to gather data. Analysis of STAR Reading GE and Est. ORF began once contact was made with each principal. Confidentiality has been maintained in this study through the removal of student identifiers and by assigning pseudonyms to each school.

Once the quantitative data were collected and analyzed, the qualitative data were collected via five homogeneous focus groups. Each interviewee was contacted by phone, e-mail, or in person to determine a common meeting time and location to conduct the focus group, and all participants were given information concerning the study (Appendix A). Primary modes of communication were determined and the research questions were given to participants at least one week prior to the meeting. This researcher has served as the sole facilitator, and all focus groups have been conducted in person. A digital recorder and a backup digital recorder pen were used to record the data, and the researcher transcribed the recordings from each focus group interview. Follow-up emails were sent whereby participants validated responses by proofreading and correcting any errors in transcription. Information recorded during the focus groups has been locked and stored in the home of the researcher during the study, and all transcriptions will be deleted from the recorders once the project is completed. Confidentiality was maintained throughout by coding data so that participants' names were never included in the document.

### **Site Demographics**

Southern School District is a rural school district in Northern Mississippi with 642 employees and 4,593 students in grades pre-k through twelve. The district is the largest employer in the county, and the community takes pride in both academic and athletic

accomplishments. As a whole, the district has a state rating of Academic Watch and is accredited by the Southern Association of Colleges and Schools (SACS). The district is 52% male and 48% female with an ethnic make-up of 57% African American, 42% Caucasian, and 1% Hispanic. Economically, Southern receives Title I funds due to its free and reduced lunch rate of 74 percent.

The student selection process for the pre-k program has been synonymous each subsequent year. During the 2005-2006 school year, about 100 applicants were reviewed and 31 students were chosen. Though the following pre-requisites are partial factors, final judgment rests with the principal: (a) income (b) balanced race and gender; (c) stanine scores on the Kindergarten Readiness Test; (d) students never having been to school and students with disabilities are given priority. The pre-k class from the 2007-2008 school year is now in second grade and makes up the Pre-K Group in the sample. Eighty-five (85) students who attended Head Start are included in the Head Start Group and 59 with no pre-k experience or experiences other than those in the Pre-K and Head Start Groups make up the No Pre-K Group in the sample. STAR GE and STAR Est. ORF scores from Southern were analyzed using a one-way analysis of variance (ANOVA) to determine if differences exist between the three groups.

Lewis School District is also a rural school district in Northwest Mississippi with 633 employees and 2,438 students in grades pre-k through twelve. Like Southern, Lewis has a state rating of Academic Watch and is accredited by the Southern Association of Colleges and Schools (SACS). The district is 51% male and 49% female with an ethnic make-up of 69% Caucasian, 29% African American, and 1% Hispanic. Lewis receives Title I funds due to its free and reduced lunch rate of 58.23 percent.

The pre-k program at Lewis Elementary is in high demand with a three year waiting list and tuition of 375 dollars per month. The program was completely funded through tuition during the 2006-2007 school year, but now one teacher's assistant and 20 percent of one of the three certified teachers is paid through federal Title I funds. During the 2007-2008 school year, there were two classes with a total of 33 pre-k students. The pre-k class from the 2007-2008 school year is now in second grade and makes up the Pre-K Group portion of the sample. A total of 27 students who attended Head Start are included in the Head Start Group and 40 with no pre-k experience or experiences other than those in the Pre-K and Head Start Groups make up the no Pre-K Group in the sample. STAR GE and STAR Est. ORF scores from Lewis were analyzed using a one-way ANOVA to determine if differences exist between the three groups.

Overlook School District is the third rural school district in Northwest Mississippi in this study with 526 employees and 3,360 students in grades pre-k through twelve. Overlook is the highest achieving district in the study with a state ranking High Performing, one level below the top ranking of Star School. The school is also accredited by the Southern Association of Colleges and Schools (SACS). The district is 51% male and 49% female with an ethnic make-up of 50% Caucasian, 42% African American, 4% Hispanic, and 4% Asian. Overlook receives some Title I funds due to its free and reduced lunch rate of 48.52 percent.

The pre-k program at Overlook Elementary is open to all four-year-old students in the district, but final selection rests with the principal since space is limited. Similar to the other pre-k programs in this study, Overlook has to use federal and local funds because no state funds are currently available. During the 2007-2008 school year, there were three classes of 18 students per class for a total of 54 pre-k students. The pre-k class from the 2007-2008 school year is now in second grade and makes up part of the Pre-K Group sample. Nineteen (19) students who

attended Head Start will comprise the Head Start Group and 38 with no pre-k experience or experiences other than those in the Pre-K and Head Start Groups will make up the No Pre-K Group in the sample. STAR GE and STAR Est. ORF scores from Overlook have been analyzed using a one-way ANOVA to determine if differences exist between the three groups.

Table 1

*Overview of Site Demographics*

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	Southern	Overlook	Lewis
Student Population	4,593	3,360	2,438
Academic Status	Academic Watch	High Performing	Academic Watch
Race	57% Af. American 42% Caucasian 1% Hispanic --	42% Af. American 50% Caucasian 4% Hispanic 4% Asian	30% Af. American 69% Caucasian 1% Hispanic --
SES	74%	49%	58%
Study Sample	31 pre-k 85 Head Start 59 no pre-k	56 pre-k 19 Head Start 38 no pre-k	40 pre-k 27 Head Start 33 no pre-k
Enrollment Process	principal selection	principal selection	tuition-based

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**Design of the Research Study**

The research design for this study is a triangulation mixed methods design as described by Gay, Mills, and Airasian (2006). This design is one in which the quantitative data is collected concurrently with the qualitative data during the same time period. Both the quantitative and qualitative portions of the study are weighted equally and are notated as “QUAN” and “QUAL” respectively. Quantitative and qualitative data has been collected and analyzed in this QUAN →

QUAL study to provide greater insight than would be possible by a single quantitative or qualitative design.

The purpose of the quantitative portion of this study is to determine whether there are differences in mean second grade MOY STAR GE and MOY STAR Est. ORF between the Pre-K, No Pre-K, and Head Start Groups. The MOY STAR GE and MOY STAR Est. ORF are the dependent variables and pre-k status is the independent variable for this study. The data for this causal-comparative quantitative portion have been analyzed using the appropriate descriptive and inferential statistical measures including mean, variance, and standard deviation at a probability level of .05. A measure of central tendency is a summary of numbers that represents a single value in the distribution of scores, and the measures of variance and standard deviation are indicative of how the scores are dispersed around the mean (Gay, Mills, & Airasian, 2006). A one-way ANOVA was used to determine whether or not differences in the mean exist between the Pre-K, Head Start, and No Pre-K Groups at a .05 significance level.

The purpose of the qualitative component of this study is to determine the degree to which administrators and teachers in Mississippi collaborate as a valuable component of instructional leadership to achieve and maintain successful, high-quality pre-k programs. A phenomenological approach, one in which participants share immediate experiences with a phenomena despite any prevailing understanding they may have concerning the topic, was used to collect the qualitative data. Homogeneous focus groups based on the following open-ended questions led to further questions regarding collaboration (Creswell, 2009; Gall et al., 2007).

### **Research Hypotheses and Questions**

The quantitative portion of this dissertation study includes two separate hypotheses to determine if mean differences exist between students' reading comprehension and oral reading

fluency scores from the Pre-K, No Pre-K, and Head Start Groups. Research questions related to instructional leadership in pre-k have been posed to focus groups for the qualitative portion of the study.

**Quantitative hypothesis one.** There is no significant difference in the mean STAR Grade Equivalent (GE) by pre-k status.

**Quantitative hypothesis two.** There is no significant difference in the mean STAR Estimated Oral Reading Fluency (Est. ORF) by pre-k status.

**Qualitative research questions.** A phenomenological approach was designed to collect data through homogeneous focus group interviews based on the following research questions:

1. How is instructional leadership characterized in your school?
2. What aspects of instructional leadership are the most and least beneficial? Why?
3. In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?
4. When collaborating with others concerning early literacy instruction, what specific instructional steps are taken to ensure fluency and comprehension?

### **Conceptual Framework on Instructional Leadership**

In past decades, words such as bureaucratic, top-down, dictatorial, and autocratic would have most likely been used to define instructional leadership. Cogan, Anderson, and Krajewski (1993) summarized the literature on instructional leadership from 1850 to 1990 and found a vast range of thought including: “(a) scientific management; (b) democratic interaction approach; (c) cooperative supervision; (d) supervision as curriculum development; (e) clinical supervision; (f) group dynamics and peer emphasis; (g) and coaching and instructional supervision” (p.7). Some researchers, such as Krajewski (1996), believe that instructional leadership is not entirely

collaborative due to the existing power differentials, such as the principal as change-agent and evaluator. As predicted by Krajewski, instructional leadership will have more structured options by 2015 based on individual standards, expectations, goals, and needs for teachers, much like today's Individualized Education Plan (IEP) for students. Krajewski suggests a differentiated path of learning and growth for teachers much like teachers are expected to provide to their students. Blase and Blase (2004) discovered that advanced forms of collegiality are rare even today, and leaders' attempts to work collaboratively often times become more of an inspection, oversight, and judgment. The authors view instructional leadership as a typical blend of supervision, professional development, and curriculum development and one that has shifted from control to collaboration.

The original one-room schoolhouse mentality, according to Robbins and Alvy (1995), could be the culprit for creating a climate and history of isolation in schools. Teachers often encourage their students to work cooperatively; however, professional collaboration is often limited to a single teacher and principal. Ironically, most teachers encourage interaction and community among students within their own classrooms but rarely seek to engage with adult peers concerning teaching and learning. Isolation reflects the mentality that teachers have nothing to share and it cuts a lifeline of useful information, the intellectual capital and a school's most precious commodity (Schmoker, 1999). In short, collaborative schools have the mentality that "together, we are better than alone" (Robbins & Alvy, p. 131). The collaboration component of instructional leadership will be the conceptual framework for this qualitative study.

One theme of collaboration found in the literature pertains to the responsibility of the leader in modeling the expectations of collaboration to create such a climate within the school.

According to Blase and Blase (1998), principals in their study created a culture of schoolwide collaboration by consistently modeling a philosophy of teamwork. A key component in modeling teamwork was a culture of choice among teachers and students that helped to create a disciplined environment throughout the entire school community. Kouzes and Posner (2007) denoted that the element of choice, along with latitude and accountability, provides an atmosphere of self-efficacy for a leader where better decisions are made and the level of commitment is elevated. Similarly, Kouzes and Posner suggested that leaders enable others to act within the organization by fostering collaboration and strengthening others. Collaboration was described by the authors as a social imperative vital to creating the extraordinary among a group of people, which can be attained through creating a climate of trust and by facilitating relationships.

In the Blase and Blase (1998) study, collaborative networks within schools were described as “essential for successful teaching and learning and could be expanded through staff development” (p. 63). Trust is essential in maintaining an overall healthy environment whereby constituents feel satisfied, innovative, and content with their jobs (Kouzes & Posner, 2007). Truthful, ethical, and principle-driven decisions are the hallmarks of an honest leader, and the reputation, integrity, and respect of his constituents are mirror images of that honesty. A leader can foster trust in the system by sharing information and resources and by being open and sensitive to the influence and needs of others from both outside and within, thus causing others to trust more in the leader. Along with trust, Kouzes and Posner proposed that a leader should foster collaboration through the facilitation of relationships. Cultivation of relationships among constituents can be enhanced through reciprocal cooperation and interdependence toward a collective purpose and shared goals.

Another theme prevalent in the literature on collaboration was the idea of creating and maintaining a community of learners within schools. An attitude of lifelong, commutative learning whereby educators coach one another and learn from one another was a main theme in the Blase and Blase (1998) study. A method used by principals in the study to develop a community rich in teaching and learning included inter- and intradepartmental and grade-level structures such as study groups for new teaching strategies, curriculum team meetings, and grade-level meetings. Other methods mentioned by the authors as beneficial to collaboration included common planning times, informal collaborative arrangements such as common free time at lunch, and peer observation and reflection. During the peer observation time, teachers are afforded the time to observe one another for specific reasons and have dialogue about the central issues following the observation.

According to Reeves (2008), the direct observation of teachers by teachers is the greatest single influence on professional practice in the classroom. In fact, Reeves recommended that school administrators look for effective practice in the classroom daily to help other teachers improve, rather than constantly looking for what is wrong in every classroom that is visited. As Kouzes and Posner (2007) declared, a leader can strengthen others by heightening levels of self-determination, competence, and confidence. Self-determination is actually strengthened when a leader gives away his power to propel others toward full task engagement and individual accountability. Yet Kouzes and Posner cautioned that without strengthening the resolve of competence and confidence, self-determination alone is inadequate. A leader must create an environment of life-long learning by providing training and development of skills and knowledge needed to be more proficient in carrying out the tasks of the organization.

Kouzes and Posner (2007) also found that constituents admire a leader who shows

competency by having relevant experience and sound judgment. For a climate of collaboration to become grounded within a school, Robbins and Alvy (1995) recommended a structured implementation whereby someone outside or within the organization should facilitate the process. Resistance is likely given that the process can be somewhat foreign to many. The principal is the key to articulating a vision for collaboration and facilitating the process if a school is to experience the synergy, creativity, and capacity for learning that collaborative teaching and learning provides.

Coaching was another theme extracted for this study and mentioned by both Blase and Blase and Kouzes and Posner in which leaders can empower employees by helping them enhance their own leadership abilities and by fostering the self-confidence of all. Heightened capacity creates what Robbins and Alvy (1995) denoted as learning about learning with dialogue focused on problem solving and teaching and learning as teams design curriculum, lesson plans, and assessments. Crowther, Kaagan, Ferguson, & Haan (2002) called the collective actions of principals and teachers to solve problems and build capacity as parallel leadership. A mutual relationship of trust and respect allows for teacher autonomy, innovation, and a shared purpose when parallel leadership is present.

In fact, leaders should learn the inter- and outer-workings of an organization and also face the reality that institutions are too complex and multi-faceted to be the most technically competent team member. Employees feel empowered when they are educated about the inner-workings of a system, which then enables them to better understand the urgency of the critical work needed to be successful. Cognitive coaching, as cited by Robbins and Alvy (1995), is a process whereby any school staff members can engage with one another in a planning conference, observation, and a reflection conference guided by clarifying questions, pressing for

specification, and other tools to help in communication when members do not share a common language.

The final theme found in the research relevant to this study is action research. When staff members engage in action research, a focus area is selected, research questions are developed, necessary data collection is planned, and a form of data analysis is determined. Once data are collected and analyzed, the findings are described, summarized, and reported to involved parties. Schmoker (1999) described action research as a form of collaboration in an environment of “carefully conducted experimentation with new practices and assessment of them” (p. 16). Study groups are similar to action research, as stated by Robbins and Alvy (1995), in that there is a key topic or theme, but a more theoretical approach is taken whereby participants analyze case studies, journal readings, interviews, and books. Time, training, and trust among constituents are all necessary in creating a climate of teamwork.

A curiosity about learning and a belief in joint work characterize the core values of a collaborative team. Low risk, non-academic activities should first be attempted such as social gatherings and games to prevent exposure to a teacher’s limitations in knowledge, skills, and talents. As staff members become more comfortable in congenial situations, they gradually begin more collegial type activities that build cooperation, such as planning field trips and discussing curricular matters. The aforementioned process by Robbins and Alvy (1995) begins to cultivate a safe environment in which teachers will begin to take more risks in working together to improve instruction and overall performance in more of a collaborative setting. Kouzes and Posner (2007) indicated that failures and mistakes are important to becoming more successful and can create a higher quality of work. Constituents must feel as though they are in an environment where they can learn from mistakes, take risks, and use innovation and inquiry.

Kouzes and Posner noted that constituents will seek to learn most when they feel a part of an environment that talks about both success and failure, and leaders themselves continue learning through taking action, thinking, feeling, and accessing others. The focal point of the qualitative portion of this study will be within the framework of collaboration and informed by research questions that have guided the design of questions for the focus groups.

An important aspect of this study is that alignment is evident between the conceptual framework on instructional leadership, research questions, and focus group questions. Table Two demonstrates this alignment by matching the research themes with the related component from the conceptual framework and the corresponding numbers from the list of research and focus group questions (Appendix C):

Table 2

*Instructional Leadership Study Alignment*

Research Themes	Conceptual Framework	Research Questions	Focus Questions
Theme 1	principal as model	1, 2, 3, 4	1, 2, 3, 4
Theme 2	creating and maintaining a community of learners	3, 4	3, 4
Theme 3	coaching	2, 3	2, 3
Theme 4	action research	3, 4	3, 4

**Data Collection Measures**

For the quantitative component of the mixed methods study, the researcher has gathered MOY STAR GE and MOY Est. ORF data from a targeted sample of 127 students in the Pre-K Group and a targeted sample of 131 in the No Pre-K Group. A random numbers generator was

used to select 130 students for the No Pre-K Group from a total of 458 students who attended no formal pre-k or another type of preschool not included in this study. The pre-k and Head Start samples are considered purposefully chosen because the students in these groups are pre-determined in that they have already had the pre-k treatment. The targeted sample from each school was as follows: 31 pre-k and 59 no pre-k at Southern Elementary, 40 pre-k and 33 no pre-k at Lewis Elementary, and 56 pre-k and 38 no pre-k from Overlook Elementary. The aforementioned groups of students are currently in the second grade. The data analyzed in each group included second grade MOY STAR GE and MOY Est. ORF scores.

The MOY STAR was administered to all schools during the month of December 2010 in all schools by the computer lab teacher who oversees the students as they take the computerized assessment to ensure honesty and attentiveness. Once students completed the assessment, the data were automatically saved into the database for retrieval. The data were gathered by a volunteer or principal designee at each site after IRB approval, and all student identifiers were removed to maintain confidentiality.

The data include pre-k status, MOY STAR GE, MOY STAR Est. ORF, gender, ethnicity, and SES. Scores from the MOY STAR were then used to determine if differences exist in oral reading fluency and comprehension by pre-k status. Once the data were submitted to the researcher in Microsoft Excel format, it was then analyzed using Statistical Package for the Social Sciences (SPSS).

For the qualitative component of the mixed methods study, a phenomenological approach for data collection was used via homogeneous focus groups. As stated previously, a phenomenological inquiry approach is one in which participants share immediate experiences with a phenomena despite any prevailing understanding they may have concerning the topic

(Creswell, 2009; Gall et al., 2007). The three groups are homogeneous in nature in that they involve participants with similar job descriptions and include school administrators (principals/assistant principals/lead teachers), pre-k teachers, and district personnel (superintendents/deputy superintendents/directors of federal programs). The aforementioned subjects were purposefully selected due to their positions in the schools. Follow-up emails were sent to each participant once data were transcribed to ensure accuracy of the dialogue. Themes were extracted from the transcribed data to determine the degree to which administrators and teachers in Mississippi collaborate as a valuable component of instructional leadership to achieve and maintain a successful, high-quality pre-k program.

The purposeful sample for the quantitative component was selected during the 2010-2011 school year from a population of current second graders in the three schools and includes 263 students at Southern Elementary, 183 at Lewis Elementary, and 270 at Overlook Elementary. Students from the sample have attended pre-k at either one of the three elementary schools, Head Start, private preschool, or have had no pre-k experience at all. Students who attended pre-k during the 2007-2008 school year will make up the purposeful Pre-K Group of 31 students from Southern, 40 from Lewis, and 56 from Overlook. A school representative from each school used student data and cumulative records to determine a subgroup of students who attended Head Start for the Head Start Group. A targeted group of Head Start students was also used and includes 85 students from Southern, 27 from Lewis, and 19 from Overlook. A random numbers generator was used to determine a No Pre-K Group of 130 students from a total of 458 students with no pre-k experience or a pre-k experience different from those students in the Pre-K Group or Head Start Group. Seeing as this study has emphasized state-funded pre-k in Mississippi, the

population for this study includes all 716 second grade students who have attended the three rural, public pre-k programs in Northern Mississippi.

The purposeful sample for the qualitative portion of the study includes 22 instructional leaders in the three schools. Interviewees included school administrators, lead teachers, pre-k teachers, and district personnel. A purposeful sample, as cited in Gall et al. (2007), is one in which the researcher selects cases having the potential to provide rich data and in-depth understandings related to the purpose of the study. One focus group occurred at Southern Elementary School and consisted of 4 pre-k teachers. The second focus group in the Southern School District took place at Southern Intermediate School and involved the superintendent, deputy superintendent, principal, and assistant principal. The third focus group was held at Lewis Elementary School and consisted of three pre-k teachers and one special needs pre-k teacher. The fourth focus group session was held at Lewis School District Office and included the superintendent and principal. The fifth group was made up of 6 pre-k teachers from Overlook Elementary School. The sixth and final focus group session was cancelled after the researcher made multiple requests for a meeting. A total of 22 participants were targeted in the focus groups for the qualitative portion of this mixed methods study. Demographic information such as educational background, gender, and race was not collected nor a factor in the results of the study. Pseudo names have been assigned for each district and school in this study.

### **Research Instruments and Protocol**

For the quantitative portion of the mixed methods study, the research instrument was the STAR Reading Computer-Adaptive Reading Test. The differences in second grade reading comprehension and oral reading fluency scores between groups were determined by using the STAR Grade Equivalent (GE) and the STAR Estimated Oral Reading Fluency (Est. ORF).

The STAR Reading Computer-Adaptive Reading Test is a periodic progress monitoring computerized assessment designed by Renaissance Learning, Incorporated (2010) to measure reading comprehension and estimated oral reading fluency. STAR affords teachers the opportunity to periodically assess students in ten minutes or less and provides accurate, nationally-normed results that can measure longitudinal growth over time. Computer adaptive tests such as STAR provide more accurate data than paper-and-pencil assessments due to a procedure called Adaptive Branching whereby the computer adjusts questions according to each student's achievement level instead of a one-size-fits-all test.

The primary test item format for STAR is vocabulary-in-context format and was chosen due to “interrelated reasons of efficiency, breadth of construct coverage, and objectivity and simplicity of scoring” (Renaissance Learning, Inc., 2010) The vocabulary-in-context format examines a student's ability to draw meaning from text by using items that are complete, contextual sentences with tightly controlled vocabulary levels. The sentence semantics and syntax are such that students are provided clues to be able to choose the correct cloze word, thus requiring the student actually interpret the meaning of the sentence. Students in grades K-2 are required to read, use context clues, and interpret meaning as they attempt to answer 25 cloze sentences across grade levels totaling approximately 300 words. The possible answers for the cloze sentences are typically presented in multiple choice format with four choices. The strong vocabulary component to the STAR test is based on the premise that vocabulary is a fundamental component of reading comprehension and is perhaps the most important in determining a child's ability to comprehend written material.

The report generated from STAR provides the researcher with information regarding each participant's reading comprehension ability (GE) and estimated oral reading fluency (Est.

ORF). According to Renaissance Learning, Incorporated (2010), the STAR GE indicates a grade placement score for whom a particular score is typical. For instance, a child who scores 2.7 has a comprehension ability of an average second grader in the seventh month. The GE score is norm-referenced meaning that students who take the test are compared to other students nationally. For example, the score of 2.7 previously mentioned does not necessarily indicate that a student can read books on the level but that he or she reads as well as other second graders in the norm group. The GE is divided as a ten month scale expressed as a decimal. In the aforementioned example, a score of 2.7 indicates an equivalency of second grade level, seventh month (July). The authors stated that caution should be taken when averaging GE scores across two or more grade levels because reading growth is non-linear, especially in elementary school where reading growth can occur rapidly.

The STAR Estimated Oral Reading Fluency (Est. ORF) score estimates a student's ability to read words quickly and accurately to efficiently comprehend text (Renaissance Learning, Incorporated, 2010). Students who read fluently demonstrate the ability to accurately decode words, recognize words, and use appropriate intonation, phrasing, pitch, and emphasis. The Est. ORF calculates the number of words a student can read correctly in one minute on the appropriate grade-level passage. The passage contains connected text in a comprehensible passage representative of the first half of the school year. The Est. ORF provides an estimate across a range of readability levels and provides a noticeably different score from what would arise from a score on a specific passage with a fixed level of readability. Renaissance Learning, Incorporated (2010) used an equipercentile linking strategy to determine an estimate of the oral reading fluency for each possible scale score on STAR Reading in Grades one through four.

The latest norms for STAR Reading were updated during the spring of the 2007-2008 academic year and consisted of assessments given between April 15 and May 30, 2008, according to Renaissance Learning, Incorporated (2010). Reliability refers to how well a test yields consistent results across test forms and test administrations, and three distinct methods were used for the computer-adaptive STAR Reading test: (a) the split-half method; (b) the test-retest method; (c) the estimation of generic reliability. In the split-half method, the test was divided into two halves and scores were calculated for each half. The two scores were then correlated to determine an estimate of the reliability of a half-length test. The resulting reliability value was adjusted using Spearman-Brown Formula to estimate the reliability of the full-length test. The overall reliability in the split-half method was .92 with a reliability of .89 on the second grade test.

A variation of the traditional test-retest method was used as another STAR reading reliability measure. In the traditional method, students typically take the same test twice within brief time intervals, typically a few days. The STAR followed the same methods but instead administered two different tests without using any of the same items on the second test as were used on the first test. Reliability estimates for this test were done by using the STAR Instructional Reading Level (IRL) ability estimates or theta scores. Checks of valid test data for both test administrations and to remove motivational discrepancy cases were performed. The overall reliability was .91 with a coefficient of .85 in second grade and is typically the most conservative of the three reliability measures.

The final reliability method mentioned by Renaissance Learning, Incorporated (2010) was generic reliability. The score was derived from an individual estimate of measurement error called conditional Standard Error of Measurement (SEM) and each student's Item Response

Theory (IRT) ability estimate known as theta. The reliability estimate was computed by substituting the average of an individual's student error variances and the variance of the students' ability estimates. The generic reliability measure estimates the proportion of overall score variance exclusive to measurement error and is typically higher than the more conservative tests mentioned previously. The generic reliability test revealed an overall reliability of .95 and a coefficient of .90 in second grade.

The validity of the test refers to how well the instrument assesses what it claims to measure (Renaissance Learning, Incorporated, 2010). Validity of STAR Reading was conducted through a meta-analysis of 223 correlations of other tests. In the meta-analysis, correlations were combined with sample sizes to yield estimates of overall validity, standard errors, and confidence intervals both overall and within grades. The overall test validity was .72 with a standard error of 0.00 at a 95% confidence interval. For second grade, the validity was .72 with a standard error of .02 at a 95% confidence interval.

For the qualitative component of the mixed methods study, the researcher posed four open-ended questions in a series of five focus groups using a phenomenological approach. The phenomenological approach was used to determine the degree to which school personnel collaborates concerning issues related to early literacy as a foundation for reading fluency and comprehension. As mentioned previously, a phenomenological inquiry approach is one in which participants share immediate experiences with a phenomena despite any prevailing understanding they may have concerning the topic (Creswell, 2009; Gall, Gall, and Borg, 2007). The questions for this study (Appendix C) encouraged participants to share their immediate experiences concerning collaboration in the pre-k setting and were developed from the following research questions:

1. Describe instructional leadership in your school.
2. What aspects of instructional leadership are the most and least beneficial? Why?
3. In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?
4. When collaborating with others concerning early literacy instruction, what specific instructional steps are taken to ensure fluency and comprehension?

Credibility during the qualitative component of this study was ensured by this researcher using several methods: (a) using rich, descriptive explanations of the interviews; (b) holding follow-up interviews to seek clarification and accuracy; (c) reporting discrepant information even when it does not align with common themes from the interviews. Trustworthiness was maintained by checking the accuracy of transcriptions with digital recordings and by consistency in coding the responses by each participant.

### **Statistical Tests and Data Analysis**

The planned data analysis for the hypotheses was a one-way ANOVA in which both dependent variables, mean STAR GE and mean STAR Est. ORF, were analyzed separately to determine differences in the independent variable of pre-k status (Hinkle, Wiersma, & Jurs 2003). Gay, Mills, and Airasian (2006) described the one-way ANOVA as “a parametric test of significance used to determine whether a significant difference exists between two or more means at a selected probability level” (p. 359). The one-way ANOVA allows the researcher to determine the variance between groups and error variance (variance within groups) using what Gay et al. (2006) refer to as the F ratio. The numerator of the ratio is the variance between groups and the denominator consists of the error variance. If the variance between groups is determined to be significantly greater than the error (variance within groups), a significant F

ratio exists and the null hypothesis is rejected. A rejection of the null hypothesis indicates that the treatment significantly impacted the dependent variable. A Games-Howell Post-Hoc Test was used to determine which groups were significantly different from other groups ( $p < .05$ ). The quantitative portion of this study is considered to be a causal-comparative design, one in which the researcher attempts to establish cause-effect relationships among groups (Gay et al., 2006). The data were analyzed using the appropriate descriptive and inferential statistical measures including a measure of central tendency (mean), variance, and standard deviation at a probability level of .05. A measure of central tendency is a summary of numbers that represents a single value in the distribution of scores, and the measures of variance and standard deviation are indicative of how the scores are dispersed around the mean (Gay et al., 2006). SPSS descriptive statistical analysis helped the researcher determine the mean and standard deviation of the data set. A one-way ANOVA was conducted for both hypotheses to determine if differences did exist between the two dependent variables STAR GE and STAR Est. ORF and the independent variable pre-k status.

A six-step approach for analyzing qualitative data were outlined by Creswell (2009) and used for this study. The steps include: (a) organizing and preparing the data; (b) reading the data for meaning; (c) coding the data; (d) developing descriptions, categories, and themes; (e) determining the method of reporting and report the findings; (f) interpreting the data. The researcher transcribed and coded his own data and discovered the process to be one in which valuable insight was gained within the thick, rich dialogue. The researcher organized the data consistently and began to extract meaning from the data by reading, rereading, and analyzing it. Each participant received a copy of the transcript and was given the opportunity to clarify or edit the data before the final narrative was written. Key meanings and topics were noted in the

margins of the transcript to aid in developing common themes in the study. Common themes and discrepant information were written in the final narrative summarizing the data from the interviews. It is through the aforementioned process that this researcher was able to determine the degree to which administrators and teachers are collaborating to make informed decisions concerning early literacy instruction.

### **Summary of the Methods**

The previously mentioned methodologies have provided what Creswell (2009) and Gall (2007) call a blueprint for the proposed research study. These methods provide a guide for the researcher and others to successfully implement the methods that are set forth and to be able to maintain reliability. The research procedures in this study include IRB approval, participant consent and assent, and a general overview of the entire study. The site demographics are included to provide a comprehensive description of each of the schools in the study. The design of this study is mixed methods, specifically a QUAN → QUAL design in which data is collected concurrently and the results are typically stronger than one would gain from a single quantitative or qualitative study. The null hypotheses for the quantitative portion of the study are intended to determine if differences exist between the Pre-K, No Pre-K, and Head Start Groups regarding oral reading fluency and reading comprehension. The researcher gathered data by posing four research questions to participants for the qualitative portion of the study. The purpose was to investigate the degree to which collaboration occurs in the three schools, especially concerning early literacy education. The research instrument for the study was the STAR Reading Computer-Adaptive Reading Test for the quantitative portion, and the researcher was the instrument for the qualitative portion. This chapter concludes with a description of a one-way

ANOVA as the appropriate statistical test for the quantitative study and theme extraction of the focus group data for the qualitative portion of the study.

## **CHAPTER IV**

### **RESEARCH FINDINGS**

This section of research findings encapsulates both quantitative and qualitative data to gain a more comprehensive insight into pre-k programs in Mississippi, especially in relation to oral reading fluency, reading comprehension, and instructional leadership. A description of the findings is included, followed by demographic data concerning the population and sample. Descriptive statistics are included for the two assessments in the study, and tables are provided as needed. ANOVA results, including a Test of Homogeneity of Variances and Games-Howell Post-Hoc Tests, are presented. The results at a significance level of .05 are reported for the two hypotheses. A summary of the final sample demographics is included in Table Three:

Table 3

*Overview of Sample Demographics*

Pre-K Status	No Pre-K	Pre-K	Head Start	Total
Total	130	127	131	388
Gender				
Male	57	67	61	185
Female	73	60	70	203
Ethnicity				
Other	1	3	0	4
African American	45	41	115	201
Asian	0	3	0	3
Caucasian	77	74	14	165
Hispanic	7	6	2	15
SES				
Non-SES	42	62	5	109
SES	88	65	126	279

**Hypothesis One Results Summary**

**Descriptive statistics.** Quantitative Hypothesis One states that there is no significant difference in the mean STAR Grade Equivalent (GE) by pre-k status. An ANOVA was used to determine if a mean difference exists within and between the different pre-k groups as measured by the STAR GE, a grade equivalency score related to reading comprehension ability. An important reminder is that the STAR GE was administered in the middle of the year, so an average third grader should yield a STAR GE of 2.5 indicating second grade, fifth month. Table Four summarizes the descriptive statistics for Hypothesis One:

Table 4

*Descriptive Statistics for STAR GE*

STAR GE Scores	No Pre-K	Pre-K	Head Start
<i>M</i>	2.520	2.900	2.140
<i>SD</i>	.986	1.003	.725

As indicated in Table Four, the mean (*M*) STAR GE for the No Pre-K Group was 2.52 with a standard deviation (*SD*) of .986. The No Pre-K Group data suggest that students who did not attend the pre-k programs in the study or a Head Start have a reading comprehension ability of a second grade student in his fifth month (2.5) of second grade.

The Pre-K Group yielded a mean STAR GE of 2.9 with an SD of 1.003. The data for the Pre-K Group represent children who attended one of the pre-k programs included in this study. The data for this group reflect a reading comprehension ability of a student in the ninth month of second grade (2.9).

In the Head Start Group, the mean STAR GE is 2.14 with an SD of .725. The children in the Head Start Group are those who attended the local Head Start Center in the same county as the school districts represented in this study. The data show that for a child who attended Head Start, the reading comprehension ability is that of a second grader in the first month (2.1) of second grade.

**One-way ANOVA.** The one-way ANOVA is a parametric test of significance that yields the F ratio score distribution. The F distribution score represents the ratio of differences (variance between groups) and error (variance within groups) (Gay, Mills, & Airasian, 2006). The F ratio is significant if the between group variance is significantly higher than the within group variance. For this study, the STAR GE has a between group variance mean square of

18.609 that is substantially higher than the within group mean square of .833 indicating a significant difference at the  $p < .05$  level in STAR GE scores for the three groups:  $F(2, 385) = 22.347, p = .000$ . ANOVA results for Hypothesis One are presented in Table Five:

Table 5

*ANOVA F Ratio Score Distribution for STAR GE*

STAR GE	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37.217	2.000	18.609	22.347	.000
Within Groups	320.592	385.000	.833		
Total	357.809	387.000			

**Levene’s test of homogeneity of variances.** Homogeneity of variance is the assumption that the variances are equal in all three groups of this study. If  $p > .05$ , then the hypothesis of equal variances is accepted and homogeneity is assumed. For Hypothesis One of this study,  $p = .003$  for the STAR GE, so the hypothesis of equal variances is rejected and homogeneity is not assumed. Despite this fact, violation of this assumption is not serious considering the three groups in this study are of equal size (Hinkle, Wiersma, & Jurs, 2003). Gall, Gall, and Borg (2007) concur that parametric tests are still appropriate when homogeneity is not met because “research has shown that moderate departure from the theoretical assumptions has very little effect on the value of the parametric technique” (p. 325). In addition, Gall, Gall, and Borg argue that nonparametric tests in general yield less powerful results, require larger samples sizes, and suitable nonparametric tests are typically unavailable for many of the problems encountered in educational research. The results of the test of homogeneity of variances for Hypothesis One are summarized in Table Six:

Table 6

*Test of Homogeneity of Variances of STAR GE*

Test	Levene Statistic	df1	df2	Sig.
STAR GE	5.773	2	385	.003

**Games-Howell Post-Hoc Test.** A Games-Howell Post-Hoc was conducted to determine which group means are significantly different from one another for Hypothesis One. According to Games and Howell (1976), the Games-Howell Post-Hoc Test assumes a significant F-ratio, but the test is much more robust when analyzing unequal values of n, heterogeneous variances, and non-normality. For Hypothesis One of this study,  $p = .003$  for the STAR GE, so the hypothesis of equal variances is rejected and homogeneity is not assumed given that  $p < .05$ . The Games-Howell Post-Hoc Test accepts unequal variances by defining a different value for each comparison to exceed for significance (Games & Howell, 1976).

Quantitative Hypothesis One states that there is no significant difference in the mean STAR Grade Equivalent (GE) by pre-k status. Results of the one-way ANOVA indicate a significant difference in mean STAR GE scores for the three pre-k status groups:  $F(2, 385) = 22.347, p = .000$ . Post-hoc comparisons using the Games-Howell test indicate that the mean scores for the No Pre-K Group ( $M = 2.53, SD = .986$ ), Pre-K Group ( $M = 2.90, SD = 1.00$ ), and Head Start Group ( $M = 2.14, SD = .725$ ) are all significantly different from one another if  $p < .05$ . In fact, the data yield strong significant differences ( $p < .01$ ) between the No Pre-K Group and Pre-K Group ( $p = .007$ ); No Pre-K Group and Head Start ( $p = .001$ ); and Pre-K Group and Head Start ( $p = .000$ ). According to the data, Hypothesis One is rejected at an alpha level of .05. The results of the post-hoc test for Hypothesis One are represented in Table Seven:

Table 7

*Games-Howell Post-Hoc Test of STAR GE*

(I) Pre-K Status	(J) Pre-K Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Int.	
					Lower Bound	Upper Bound
0	1	-.37700*	.12410	.007	-.6696	-.0844
	2	.38264*	.10721	.001	.1298	.6355
1	0	.37700*	.12410	.007	.0844	.6696
	2	.75964*	.10927	.000	.5019	1.0174
2	0	-.38264*	.10721	.001	-.6355	-.1298
	1	-.75964*	.10927	.000	-1.0174	-.5019

*Note.* \* The mean difference is significant at the .05 level.

**Hypothesis Two Results Summary**

**Descriptive statistics.** Quantitative Hypothesis Two states that there is no significant difference in the mean STAR Estimated Oral Reading Fluency (Est. ORF) by pre-k status. As a reminder, the STAR Est. ORF scores reflect an assessment that was administered mid-year second grade during which time an average second grader is expected to read approximately 80 words per minute. Table Eight provides a summary of the descriptive statistics for the STAR Est. ORF:

Table 8

*Descriptive Statistics for STAR Est. ORF*

STAR Est. ORF Scores	No Pre-K	Pre-K	Head Start
<i>M</i>	73.120	84.940	59.370
<i>SD</i>	32.782	32.912	24.123

As indicated in Table Eight, the mean STAR Est. ORF for the No Pre-K Group is 73.12 with an SD of 32.782. The No Pre-K Group data suggest that students who did not attend the pre-k programs in the study or a Head Start Center have an estimated oral reading fluency score of 73.12 words per minute.

The mean Est. ORF for the Pre-K Group was 84.94 with an SD of 32.912. The data for the Pre-K Group represent children who attended one of the pre-k programs included in this study. The data for this group reflect an estimated oral reading fluency average of 84.94 words per minute.

In the Head Start Group, the mean Est. ORF is 59.37 with an SD of 24.123. The children in the Head Start Group are those who attended the local Head Start Center in the same county as the school districts represented in this study. The data show that for a child who attended Head Start, the oral reading fluency rate is an average of 59.37 words per minute. As indicated in Table Four, the mean (*M*) STAR GE for the No Pre-K Group was 2.52 with a standard deviation (*SD*) of .986. The No Pre-K Group data suggest that students who did not attend the pre-k programs in the study or a Head Start Center have a reading comprehension ability of a second grade student in his fifth month (2.5) of second grade.

**One-way ANOVA.** The one-way ANOVA is a parametric test of significance that yields

the F ratio score distribution. The F distribution score represents the ratio of group differences (variance between groups) and error (variance within groups) (Gay, Mills, & Airasian, 2006). The F ratio is significant if the between group variance is significantly higher than the within group variance. The STAR Est. ORF for this study has a between group variance mean square of 21152.713 that is substantially higher than the within group mean square of 911.076 which indicates a significant difference at the  $p < .05$  level in STAR Est. ORF scores for the three groups:  $F(2, 385) = 23.217, p = .000$ . ANOVA results for Hypothesis Two are presented in Table Nine:

Table 9

*ANOVA F Ratio Score Distribution for STAR Est. ORF*

STAR Est. ORF	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	42305.426	2.000	21152.713	23.217	.000
Within Groups	350764.296	385.000	911.076		
Total	393069.722	387.000			.000

**Levene’s test of homogeneity of variances.** Homogeneity of variance is the assumption that the variances are equal in all three groups of this study. If  $p > .05$ , then the hypothesis of equal variances is accepted and homogeneity is assumed. For Hypothesis Two of this study,  $p = .005$  for the STAR Est. ORF, so the hypothesis of equal variances is rejected and homogeneity is not assumed. Despite this fact, violation of this assumption is not serious considering the three groups in this study are of equal size (Hinkle, Wiersma, & Jurs, 2003). Gall, Gall, and Borg (2007) concur that parametric tests are still appropriate when homogeneity is not met because “research has shown that moderate departure from the theoretical assumptions has very little effect on the value of the parametric technique” (p. 325). In addition, Gall, Gall, and Borg argue

that nonparametric tests in general yield less powerful results, require larger samples sizes, and suitable nonparametric tests are typically unavailable for many of the problems encountered in educational research. The test of homogeneity of variances is summarized in Table Ten:

Table 10

*Test of Homogeneity of Variances for STAR Est. ORF*

Test	Levene Statistic	df1	df2	Sig.
STAR Est. ORF	5.415	2	385	.005

**Games-Howell Post-Hoc Test.** A Games-Howell Post-Hoc was conducted to determine which group means are significantly different from one another for Hypothesis Two. According to Games and Howell (1976), the Games-Howell Post-Hoc Test assumes a significant F-ratio, but the test is much more robust when analyzing unequal values of n, heterogeneous variances, and non-normality. For Hypothesis Two of this study,  $p = .005$  for the STAR Est. ORF, so the hypothesis of equal variances is rejected and homogeneity is not assumed given that  $p < .05$ . The Games-Howell Post-Hoc Test accepts unequal variances by defining a different value for each comparison to exceed for significance (Games & Howell, 1976).

Quantitative Hypothesis Two states that there is no significant difference in mean STAR Estimated Oral Reading Fluency (Est. ORF) by pre-k status. Results of the one-way ANOVA indicate a significant difference in mean STAR Est. ORF scores for the three pre-k status groups:  $F(2, 385) = 23.217, p = .000$ . Post-hoc comparisons using the Games-Howell Post-Hoc Test indicate that the mean scores for the No Pre-K Group ( $M = 73.12, SD = 32.782$ ), Pre-K Group ( $M = 84.94, SD = 32.912$ ), and Head Start Group ( $M = 59.37, SD = 24.123$ ) are all significantly different from one another if  $p < .05$ . In fact, strong significant differences ( $p < .01$ ) were found

between the No Pre-K Group and Head Start ( $p = .000$ ) and Pre-K Group and Head Start ( $p = .000$ ). Statistical significance ( $p < .05$ ) was also found between the No Pre-K Group and Pre-K Group ( $p = .012$ ). Therefore Hypothesis Two is rejected at an alpha level of .05. The results of the post-hoc test for Hypothesis Two is represented in Table Eleven:

Table 11

*Games-Howell Post-Hoc Test of STAR Est. ORF*

(I) Pre-K Status	(J) Pre-K Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Int.	
					Lower Bound	Upper Bound
0	1	-11.829*	4.098	.012	-21.49	-2.174
	2	13.749*	.565	.000	5.34	22.16
1	0	11.829*	4.098	.012	2.17	21.49
	2	25.578*	.602	.000	17.08	34.07
2	0	-13.749*	3.565	.000	-22.16	-5.34
	1	-25.578*	3.602	.000	-34.07	-17.08

Note. \* The mean difference is significant at the .05 level.

**Instructional Leadership in Mississippi Pre-K Programs**

The crux of the qualitative component lies within answers to four questions by teachers and administrators during five focus groups, three involving groups of pre-k teachers and two involving school and district administration. The researcher planned for a total of six focus groups, but one administrative group was unable to participate in the actual focus groups due to multiple scheduling conflicts. The overall purpose was to investigate participants' perceptions of their individual and collective roles as instructional leaders when making decisions in their pre-k

programs related to early literacy, namely oral reading fluency and comprehension. Overall, the traditional top-down approach emerges throughout the focus group interviews with administrators primarily serving the macro-level role and teachers serving in a more micro-level one. The first two questions in the focus groups are so related that responses tend to merge and will be discussed collaboratively for this study. Three themes emerge and include: (a) Instructional Leader as Foundational; (b) Instructional Leader as Facilitator; (c) Instructional Leader as Reflective Practitioner. The first two research and focus group questions are as follows:

**Research question 1.** Describe instructional leadership in your school.

*Focus group question 1.* What does the term instructional leadership mean to you in terms of pre-k education?

**Research question 2.** What aspects of instructional leadership are the most and least beneficial? Why?

*Focus group question 2.* What are some effective and ineffective practices that each of you exhibits as instructional leaders in your pre-k programs?

### **Instructional Leader as Foundational**

The responses to the first two questions of the focus groups relate to participants' general thought and understanding of instructional leadership in their pre-k programs. A recurring theme throughout is a foundational instructional leader; that is, each participant realizes the important role in providing a strong academic start for students in their pre-k programs. The administrative roles are more foundational during the onset of the programs whereas the roles of the teachers are more focused on ensuring that the first educational experience for each child is a positive, rich learning experience.

**District-level administration.** District-level administrators continue to have mounting responsibilities, and as it is with so many initiatives, their instructional leadership role in the pre-k programs is a macro-level one, having helped lay the foundation for the initial stages of the program with limited ongoing participation. Each administrator has a general working knowledge of their programs just as they do with the many initiatives for which they are responsible. The indirect facilitation of a team during the inception of the program was evident with district personnel as they discuss their role of instructional leadership in their programs.

One superintendent asserts the following thoughts on instructional leadership:

I think it is a team approach, whether it is at the building level or not. It has got to include those classroom people, the teachers, and even the assistant teachers that are in the classroom with those children who have the most interaction with those parents on a day-to-day basis. But a team approach with those folks at the building level administration is key. Then we at the district level are a resource component, a needs component, a directive component, and those kinds of things. I should have very little impact on the day-to-day operations. It should be that team approach at the building level that drives their daily routines. (Personal Communication, Superintendent, March 1, 2010).

As the program shifted from its infant stage, so too did the role of this superintendent. He alludes to the importance of building a strong, collaborative team at the building level and is very forthright in his stance of allowing those most directly involved in the pre-k the autonomy to get the job done. His attitude is one of support and trust, though clarification was needed concerning the district's directive role. The superintendent was quick to point out during a follow-up question that the directive approach was mainly concerning the primary curriculum choice during the initial stages of the program and their rocky relationship with Head Start that requires him to step in when needed. He asserts:

There are some things that have to be in place. There is a Mississippi Pre-K Curriculum, we have to make sure at a minimum it is what we are covering. We have chosen since the inception to work in a collaborative agreement with Head Start. I bow up enough that

by God it is my program, but there are certain things that Head Start wants to demand for them to participate, and so sometimes I just have to say I don't like that. Sometimes I have to not like it and go on and do it anyway, but I think that's our role is to make sure minimum standards are met and that we are taking advantage of every collaborative opportunity that's out there (Personal Communication, Superintendent, March 1, 2010).

The director of federal programs echoes this same sentiment by stating, "At the district level, I think we need to know what is being taught in the curriculum and keep up with the research and the new things that are going on in pre-k (Personal Communication, Director of Federal Programs, March 1, 2010). This desire to know what is being taught is more of a supportive role based on the director's desire to continue to supply current pre-k research to building personnel. This supportive role in providing research long after the formative years will provide the information necessary to maintain a cutting-edge program in which the stakeholders can implement the latest strategies to ensure that children are receiving the maximum benefits from such programs.

Another superintendent has a more global thought of instructional leadership as he states, "Instructional leadership to me is at any level, and it needs to be at any level. Good instructional leadership can be at the pre-k level, high school level, or middle school level (Personal Communication, Superintendent, February 23, 2011). It is unclear as to why the superintendent did not include district personnel in his statement, but evidence later on in the interview supports a working knowledge of the origins of the program. He also speaks to an instructional leader being one who is able to establish goals for a program or organization and, like the aforementioned superintendent, develop a team that can move forward to accomplish the goals needed for success. When asked how the team decided what to teach in pre-k, the superintendent was quick to explain his role as the leader of the district:

Here is how I do things. Basically, I try to hire good people, and I trust those people to

be knowledgeable in the area where they are. And I trust her that she will do the things she needs to do. I will let them run their buildings because they have the heartbeat. They know the faculty and what they need. Now I have a general idea about the district, but I place a lot of emphasis on the principals in those buildings because I believe they are the instructional leaders. Now we do different things. We have a meeting once a month and I communicate to them what is going on in the state and each principal shares what is going on in their building or things that they are doing or that they want to mention. That gives us not only my perspective or the pre-k principal's perspective, but also perspectives from the middle school, high school, and our district personnel. Our Director of Federal Programs, for example, she's good at that. We draw from each other, but that's kind of how I see that (Personal Communication, Superintendent, February 23, 2011).

Like the other superintendent, this one clearly defines his role of instructional leader as one of support and trust at the building level. Although he directly states that the principals in each building are the instructional leaders in the district, many responses throughout the manuscript imply that the superintendent in fact has characteristics of an instructional leader. Although the superintendent possesses qualities of an instructional leader, he is less aware of those qualities and is not as confident in articulating his role as the other superintendent does in the study.

**School-level administration.** The school administration in this study, including assistant principals and lead teachers, have similar characteristics as the superintendents in understanding their instructional leadership roles during the onset of their pre-k programs in ensuring that the programs are of good foundational quality. The administrative macro-level role shifts from planning and implementation in the early years to a more supportive and trusting giving autonomy to competent pre-k teachers and assistants. It is evident by one principal's response that she has a definite global view of a pre-k program's role in being only one component, albeit an important one, of a much larger elementary mission:

...When I think of instructional leadership in terms of pre-k, I don't really look at pre-k individually. I look at my school as, at the end of second grade, where do I want them to be and what are the steps to get there? That's why I wanted pre-k in the building because I think that it is an important step in that final outcome for the building. Not for the

district of course, but can they read well enough to move from learning to read to reading to learn (Personal Communication, Principal, February 23, 2011).

The principal is confidently aware of her role as instructional leader of the elementary building and understands the role of the pre-k program as a strong foundational component of a much broader initiative in preparing students to be able to “read to learn” in her building. She continues to describe in very specific terms how the principal is instrumental in helping to lay the groundwork for the program:

...My first priority was for it to be developmentally appropriate. There are some pre-k programs that I have observed that are not developmentally appropriate for a four-year-old. And then we really looked to the state frameworks, because there is a three and four year old state framework, and what schools are listed there. ...The state frameworks do list out objectives but they don't go quite far enough as to what our kids are able to [pause] and are ready for. So that's the “push” there. We are looking for number sense, patterns, and then pre-reading skills (Personal Communication, Principal, February 23, 2011).

This principal is evidently a very reflective instructional leader who relies on the expertise of her staff, in this case kindergarten, to help her make decisions in the beginning related to curriculum, socialization, early literacy, mathematics, and behavior management. One must also not overlook her own competency in knowing the right questions to ask in being able to develop a comprehensive plan. She has great awareness of the trust the superintendent places in her to make the right decisions appropriate for her staff and students. She is obviously very conscious of what an ineffective program looks like and is quick to not make those same mistakes. She also realizes her role as manager of these programs in providing the necessary supplies and support needed to continue to oversee a well-constructed program.

**Pre-k teachers.** Whereas administrators tend to see themselves as foundational instructional leaders primarily in the infant stages of the pre-k programs, each group of pre-k teachers alludes to their foundational role as one in which a strong, continuous support is

provided throughout the year. The strong foundation is one on which students can build and be successful in upcoming grades. It is very evident in participants' responses that they take very seriously their roles in providing the underpinning for all future learning, and they lead with enthusiasm and great passion. One teacher states that "With me, I know it is about academics, but being a pre-k teacher, I'm the first one they come into contact with, so I try to be that first positive experience they have throughout their education" (Personal Communication, Teacher, March 10, 2011). The teacher states a sentiment of all of the participants in their responses as each has a very positive, enthusiastic disposition toward the important jobs they perform every day. Most describe this responsibility as the laying of a groundwork or foundation on which new learning can be built, especially in kindergarten which is evident in the following responses:

I look at it (instructional leadership) as teaching shapes, colors, letters, letter sounds, book knowledge, and behaviors. Also, you've got to be able to behave and function in the school setting and go to activities. So, we try to lay the groundwork for kindergarten. We also identify any children who enter pre-k who might have trouble. Even if we don't do anything with that information that year, we can still give the kindergarten teacher a heads up that they've had one year and they are still having some trouble (Personal Communication, Teacher, March 10, 2011).

Another teacher who works alongside the teacher mentions the notion of a pre-k foundational leader by proclaiming:

We lay the groundwork, that's what I had written down. We're like the foundation, so like she said earlier we want to start out well. Even when they come in, they have certain jobs to do, responsibilities, and then that carries over at home too. Their parents will say you can do that, and they are surprised that they can carry their own tray and just the little

things that they can do to get them ready for kindergarten (Personal Communication, Teacher, March 10, 2011).

This thought of independence, especially in preparation for kindergarten, has become a recurring theme throughout each interview, including those with administration. This component of being a foundational leader is commonly referred to in literature as kindergarten readiness, though

none of the participants actually used the term. It is very clear that they value independence as a vital component of kindergarten preparation.

One group was especially forthright when asked about why parents are so surprised when their children show independence in pre-k:

Interviewer: You brought up an interesting point. Why do you think parents are so surprised at their independence?

Participant 1: Because they are still their babies.

Participant 3: Yeah. And they're not in kindergarten and I think they look at it as they are in pre-k so they are still their babies. And they're really not babies. I mean, I don't treat them like babies. I'm not mean or strict. I'm not mean to them, but I just try to be consistent. We've had some that couldn't carry trays because they're little and we've worked with them.

Participant 4: Or their motor skills haven't developed fully.

Participant 1: We do different things, but in general, they are proud of themselves for their own independence. Most of the time, just like with anything in school, we know they can do stuff before their parents do, especially if they are an only child. They are more babied, I know because that's how I was with mine. So you just think, ahhhh, and they can do stuff, simple things like pulling up their pants and buttoning them. I'm not going to just run and button your pants. I want you to try. Some of them start out and we make them do the little things. ...So you can tell who totally dresses their child and everything at home versus them having any kind of self-help.

The teachers in one school mention that an obstacle to their children becoming independent was their own ineffective strategy of micro-management:

Participant 2: Personally, for me I think I try to micro-manage too much with the problem solving. I think I try to step in too soon. Is that what you're talking about?

Interviewer: I am.

Participant 3: I agree.

Participant 2: And try not to let them (pause) I don't allow them time to solve their own problems because I want to fix it right now so we can move on.

Participant 4: Especially when they're calling your name.

The teachers are self-aware of their limitation in helping students become more independent, which indicates a potential strength in the future if they afford students the opportunities to solve their own problems. The teachers are quick to credit one of their partners as a model of someone who rarely has to intervene with problems that arise in the class because of her expectation that students should try to settle conflict first. The model teacher was quick to point out that she learned the strategy at a conference years ago that if one remains silent when a crying child approaches, most of the time they work out the problem themselves and immediately stop crying.

### **Instructional Leader as Facilitator**

In continuing with the notion of administrative macro-level leadership and teacher micro-level leadership, another theme that emerges throughout the responses is one of an instructional leader as facilitator. The premise of a facilitator is one in which the leader guides others to bring about their own learning. Facilitation by administration can often look very different than facilitation by teachers though both have the ultimate goal of guiding the learning of others.

**Administrative facilitation.** Facilitation at the district and school levels takes the shape of a support mechanism whereby resources are provided for teachers to be successful in their daily work with students in pre-k. A superintendent and principal were instrumental in shoring up money to begin a pre-k program in one of the districts because they knew that Mississippi would most likely not fund pre-k anytime soon. The largest portion of the money has come from the Database School Change Initiative Grant. The district also received a Partners for Success Grant from Renaissant Bank and another smaller grant from the Create Foundation to pay for equipment. These grants continue to defray some of the costs, while tuition pays for teacher

salaries. The superintendent continues to allocate resources as needed. His statement concerning the funding of pre-k indicates his firm belief that it is making a difference in the lives of children. The principal primarily facilitates her group of pre-k teachers by way of the lead teacher, meeting on an as needed basis to help with any issues and by continuing to provide support and resources.

Another superintendent in the study does a great job facilitating their relationship with Head Start in almost a defensive and protective role, shielding his staff or at least softening the impact of some of Head Start's rules that have very little to do with academics:

Interviewer: Is there anything on your minds as far as ineffective practices related to instructional leadership in the pre-k programs?

Participant 1: This is where I'll jump off that sometimes it is ineffective for us to try to have to meet the demands of Head Start. Some of their silly rules have nothing to do with education. They have everything to do with meeting the demands of their program. I understand we all have rules, but sometimes it doesn't make any sense at all and it is a struggle. And sometimes I think it gets in the way of what the building level folks need to be about, but there are some positives that come from that collaboration as well.

Interviewer: It would be an okay time to do that if you will. Talk about some of the positives.

Participant 1: They give us a little dab of money that they're awfully proud of. It really has very little impact on the overall program, but there are also byproduct services like the dental, vision, and other health screenings that we could do on our own, but it would tax our people when Head Start is lined up to do that with all of their programs throughout the region. But then they also turn around and almost demand some things of parents and notify them when the school has no knowledge of the demand. It looks like the school district is demanding it, but anyway it is one of those things that we'll continue to meet and collaborate on and do the things we have to do and fight the things we don't want to do.

Though the relationship is fragmented, the superintendent is clearly committed to continuing to cultivate the relationship with Head Start while laying down some boundaries of his own. While the superintendent understands there are rules tied to federal funds, the frustrations come when

those rules have little to no impact on academics. The superintendent began a firestorm of responses from other administrative staff members who began to chime in on the discussion.

The lead teacher described her disgust in having to send home what she referred to as “fat letters” to parents of some of the pre-k students who, according to the Body Mass Index (BMI), were overweight. She stated, “It hit some nerves. It made some parents angry. I would be very upset if my child received one of the fat letters...I thought that was very tacky to be honest with you” (Personal Communication, Lead Teacher, March 1, 2001). The principal then added her frustration in requiring parents of students who are in the program to pay to have their child’s lead levels tested. Though she did not speak to the actual expense of this test, she implied that it was not only a financial burden to parents but one that required a doctor’s visit and time off work.

The superintendent also comments on some lunch rules such as the pre-k teachers and assistants having to eat a hot meal even though a salad may be available. Though the purpose was unclear, this rule is the one that is not reinforced often. He also stated that Head Start gets in a dither over students who want to bring their lunch, going as far as having to require a doctor’s excuse as to why they are not able to eat the meal for ailments such as food allergies. The underlying factor in the lunch debacle is the desire of Head Start to create a family environment at the table as indicated by the superintendent. He proves his point by asking each interviewee if sitting at the dinner table is a common occurrence at their house, to which all replied no. He admitted that it was a good premise but to the absurd. Perhaps the superintendent’s statement after the discussion about lunch summarizes the struggle in facilitating the relationship with Head Start:

And that’s where I stand up and say, excuse me, this is our program. Your little \$14,000

a year is not going to demand what we do and hopefully we make concession enough that we all can get along and continue (Personal Communication, Superintendent, March 1, 2011).

The principal from the school district mentioned above describes her role of facilitator as one involved in curriculum implementation. She stated, “As far as the building level is concerned, we try to make sure that the teachers are collaborating on a weekly basis to make sure the curriculum is aligned and effectively being used” (Personal Communication, Principal, March 1, 2011). This supportive role of facilitator is also evident in her statement regarding her role as principal of a pre-k program:

I’m more of a support person. We definitely guide to be sure that we have the professional development there. We make sure we have the assistants included in all areas of planning and that they feel just as much a part. We don’t have very much to do with our pre-k staff other than to give them a heads up on the curriculum and make sure they are getting everything that they need (Personal Communication, Principal, March 1, 2011).

One could misconstrue this principal’s statement as being one of a passive leader who avoids the pre-k program due to lack of interest or concern. As the researcher, it is very evident that this is not the case. Instead, this leader recognizes that the true experts in the field of pre-k are in fact the pre-k teachers themselves. The principal not only trusts the teachers but allows them the autonomy to make good decisions within the boundaries of curriculum and Head Start requirements.

**Teacher facilitation.** It should be of no surprise that the most direct form of facilitation within a pre-k program that has the greatest impact on student learning is the teacher. Each teacher implies directly or indirectly that they maintain a facilitator’s role in their pre-k classrooms. While many educators often claim facilitation as a common practice, the pre-k setting may be a pure form of facilitated learning as evident in the focus group discussions. In

fact, in their definition of an instructional leader, the following group explicitly describes themselves as facilitators of learning:

Participant 1: With the children, we are their leader. We guide them, and we guide their instruction.

Participant 3: They look to us for their instruction.

Participant 1: Right. Like in pre-k education they learn so much from each other that a lot of the times I feel like I'm just here as a...

Participant 3: Facilitator.

Participant 1: Yeah, a facilitator that I don't necessarily go...

Participant 2: This is what we're going to do today...

Participant 1: Yeah, and this is how you're going to learn it. You give them all the information, have access to things, and they learn as they are comfortable.

The teachers clearly understand the true nature of facilitation. The aforementioned teachers are instructional leaders in the classroom who allow children to discover their own learning through socialization as the teachers watch and guide them. One teacher went on to say that students are so creative in the dramatic play center that a doctor's office can suddenly become a veterinary clinic, an experience of creative learning that for this group is the rule rather than the exception. This group considered facilitation to be an effective practice because it puts the responsibility of learning in the hands of inquisitive students and is guided by curiosity and exploration. As a facilitator, one teacher says that she determines what her students want to learn, their modalities, and their comfort level in learning the material just by observing and guiding their learning. Free choice of which center a child may want to attend and even how long they remain before moving to another was another common practice with the group. One teacher in the group made a statement about the ease of facilitation in pre-k that led to a follow-up question surrounding the

pressures of testing:

Participant 3: And it is easier in this setting to let them learn from each other and us be the facilitator. In previous experiences like in third grade, you have to think deeper on how to get them out of their desks and moving. But here you basically just have to put it out there and the resources are totally different, but they work with one another so well and learn from each other like you said and they learn from us. It depends on what skill really.

Interviewer: This wasn't on the agenda, but you just said something very interesting. You said, I think you were kind of hinting at it is not that way in third grade. I've noticed as they get older, we don't facilitate as much. Why do you think that is, mainly for you two that have been there?

Participant 2: Well, and I taught first grade.

Interviewer: Okay.

Participant 3: I think it is the pressures.

Participant 2: I think so too.

Participant 3: I think it is the pressures and I will,...

Participant 2: ... and not just on the kids but on the teachers.

Interviewer: Pressures of?

Participant 3: The test.

Participant 1: Even kindergarten teachers will tell us we are teaching kindergarten from a long time ago.

Participant 2: From 20 years ago.

Participant 1: And that we need to get back to this in kindergarten.

Participant 2: They don't have the opportunities to play in dramatic play or build blocks together, and those are social building skills and they are not socially mature at this age. They're not ready I don't think a lot of times for what we throw them into in kindergarten.

Participant 3: I heard you (Participant 2) talking to somebody at bus groups yesterday saying I wonder how long it is going to be before they take this away from us – before they change pre-k so drastically like they've changed kindergarten.

Interviewer: Wow!

It is evident by this researcher's response that the expected answer was not the rich, detailed one that transpired. The implication is clearly one of the ability of test prep to destroy the creative, cooperative climate of learning in the higher grades, replaced by a regimented schedule of teaching to the test in a mundane environment. The teacher also implies that based on conversations she is having with kindergarten teachers, the testing environment is rearing its ugly head in kindergarten as well. A teacher in another pre-k group who had taught kindergarten prior to pre-k declares that doing worksheets every day after the hands-on activities in kindergarten often become inappropriate for the age group.

In a separate interview, a superintendent weighed in on his thoughts as to why enthusiasm is being lost throughout the grades. The statement came after his federal programs director stated that the pre-k classrooms are "one of my favorite places to observe because the children seem so happy and eager to be involved and to be learning" (Personal Communication, Director of Federal Programs, February 22, 2011). After being asked why it is so different in pre-k, the superintendent added:

There's no stress. There's no high stakes assessment. It is education at its rawest. You're taking pure product and collaborating among these four teachers, assistants, and the leadership of that building. They've been given the challenge of taking these children as far as they can go. Whether it is Word-Wacking or Hip-Hop Humpty or all of the right brain movement that crosses the mid-line, all of that is incorporated. It takes in all the research that I think any of us have ever been exposed to and actually applies it. There's no threat because at that age everybody in here would agree that these children are going to emerge when they emerge. So it is not like we've got a deadline of a high stakes test. So it is truly education without consequences. It frees them up to do what they know to do with children (Personal Communication, Superintendent, February 22, 2011).

The superintendent clearly defends the idea of discovery learning and that the daily work of pre-k teachers is relevant to future academic success. The thought of being able to take a pure,

raw product as the superintendent says and have the autonomy to truly differentiate instruction to meet the needs of that child without the pressures of test preparation would be appealing to most. The idea he raises concerning emergent readers rather than having a child at a certain level by the end of the year is both good practice supported by research and common sense.

The aforementioned group of pre-k teachers primarily acts as facilitators of learning as students are involved with student-governed centers, and their secondary methods are teacher-guided, small group lessons during the center rotation. The other two groups of teachers never really directly mention the idea of being facilitators, though many of their responses certainly imply that role. One group speaks mainly about the teacher guided activities they do both in whole group settings and at their reading tables. Even still, the teachers act as facilitators while students are at free play centers or during Handwriting Without Tears, a program that was mentioned in two of the focus groups whereby students learn their letters through manipulation of many different types of mediums. While the pre-k teachers felt writing and responding was important, they were against worksheets on a daily basis and instead preferred student and teacher guided centers. The structure of each program is similar, but each participant highlights the components most important and relevant to them.

### **Instructional Leader as Reflective Practitioner**

The final theme that emerges throughout the first two questions is that of instructional leader as reflective practitioner. It is very evident that all three programs were founded with very little knowledge of what constitutes an effective pre-k program since no state-funded pre-k programs exist in the state of Mississippi. As reflective practitioners, the leaders of the programs relied on their own expertise in research and best practices to build an effective program. This has truly been a work in progress, and the leaders have been very diligent in the trial-and-error

approach to find what works for their students. The attitude of life-long learning was very evident as practitioners share what has worked well and not so well over the years related to program efficiency.

**Administration.** As one would expect at the macro-level, most of the reflection to improve practice by administration occurs mostly during the early years of the program. The superintendent speaks of a refined selection process of which he is proud because it reflects his overall school community. He states:

I think the process that we follow and the placement process of providing a blended environment considering race, sex, and socioeconomic status creates what we deem as the perfect environment reflective of our community. It may or may not, but providing that mixture in every classroom I think has been a positive (Personal Communication, Superintendent, March 1, 2011).

The lead teacher responds when asked about the role of ability in the selection process as being a good mix. She then elaborates on her statement with more specifics on selecting students who score two through nine on the Individual Developmental Educational Assessment (IDEA), a newer assessment that replaced the Kindergarten Readiness Test used by the previous principal. The current principal articulates a desire to use the IDEA more throughout the year as a benchmark test rather than just a screener at the beginning of the year:

One of the things that we've talked about this week is when we get ready to do our selections (for pre-k), that we try to utilize our data after the fact. We want to try to figure out if it is effective or not. We were trying to figure out better ways to use the data that we have that comes from assessment. We want to try and figure out if it is effective enough in the way that we are assessing. We need a small grasp of knowledge of where those students are (Personal Communication, Principal, March 1, 2011)

The IDEA, along with the Battelle and LAP3 administered by Head Start, could provide a comprehensive view of a student's true readiness to enter kindergarten. In her third year as principal, she has made some observations about how they use data in pre-k instruction, and in

fact has determined that they are not really at all. This change in practice should be an effective one that informs current practice in the pre-k classrooms that could lead to even more effective practice in upcoming years. The superintendent mentions one such effective practice in that the pre-k teachers have adopted the Mississippi Pre-K Curriculum as their core, a decision made since its inception. The premise, according to the superintendent, is a trust in the department's ability to structure a program that ties into the current accountability system to provide a reputable guideline for his teachers. The lead teacher states that an effective practice they have incorporated was to take the state frameworks and format it in such a way that informs the parents of pre-k education expectations.

Another principal reflects on the inclusive nature of her school. She describes what she feels is the most effective aspect of their program:

I think the most effective thing is that we look at pre-k as a part of our school. It is not here is pre-k and here is the school. They are included in everything we do. They are included in our activity rotation, lunch schedule...they are just part of our school. And I think that is very effective because one of the goals is for the children to be comfortable with the school environment when they come to kindergarten (Personal Communication, Principal, February 23, 2011).

Inclusion of the students into the school is definitely an effective practice that the principal is mindful of as she reflects and seeks better ways to do so with her staff. While the principal is successful in including pre-k children throughout the school, her practice of including the teachers is not as strong:

One of the ineffective things is that sometimes the pre-k teachers feel left out, and I have to work really hard remembering I need to include them in everything that we do. That's my ineffectiveness. It is like I'm so focused on the other grades that I forget. Plus, they do such a good job, it is one of those things where you don't have to worry with it. We've got it set up with a good lead teacher. They're all reliable, dependable, they know what they're doing (Personal Communication, Principal, February 23, 2011).

The principal is very self-aware of her own shortcomings as a leader and has obviously been

reflective of how to compensate and include her pre-k staff in all facets of the school. The overarching question for this principal is how to walk the fine line between trusting pre-k with the autonomy to run the program and at the same time include them with the staff so that they feel a sense of belonging and development.

**Pre-K teachers.** The area that teachers in all schools are reflective of the most is the need to provide a high-quality curriculum in their programs. All of the programs in this study rely on the state frameworks as the core guide, yet every program supplements different materials that they feel will most benefit students in mastering the state curriculum. Because there is currently no state funding for pre-k and consequently no state mandate of curriculum, each program has the autonomy to venture in other directions should the need arise. All sites imply that the state frameworks are somewhat basic, so all feel the need to supplement the frameworks and curriculum materials to improve the quality of the programs:

Participant 4: We try to go above and beyond by doing some things they relearn in kindergarten. We have been to a three year old program. We have to, without the supplies and without a textbook, figure out how to teach. We do have a curriculum.

Interviewer: Okay, you basically use the state curriculum as your guide. Do you have to bring in all the supplements?

Participant 4: Yes, we use thematic units, activities that we find on the internet, and as teachers we share activities we find or make up on our own and collaborate with each other.

Interviewer: No text or guides?

Participant 2: Well, I came from first grade, which is great, but I like to pull in and be able to add to the curriculum. I look at the tips they give you, but then I'm able to pull in whatever I want to.

Participant 6 : I feel too that the difference between just a teacher and an educational leader is that we do just that. We are creative and we go beyond managing a classroom. We really bring in our creativity, and we are diverse in the methods that we use for teaching. We are very observant of our children, their assessment results, and their daily

progress. We adapt and expand a thematic area when they're showing real great progress and skill, but then we may shorten one because they're not really showing great progress with that specific theme or idea. We have such a broad base of skills at this level it is so much fun because you're able to expand so much upon those very, very basic skills because they don't have such specific things that they have to learn in a specific area. ...I really love the quote, "Managers are people who do things right. Leaders are people who do the right thing." And that's so important, too, as a teacher because we could just follow that basic curriculum and meet the needs of the students on paper, but we're not actually leading our classroom in a way that would be great in the long scheme up there.

The previously mentioned group has the freedom to supplement the state frameworks and have been very proactive in doing so. Most of the responses include a notion of supplementing for the sake of creativity and higher-level thinking, both of which are important for any classroom.

While all appreciated the autonomy they have, most were welcome to the idea of having some guides or programs from which to choose:

Participant 4: I don't think I really need a guide because I'm that type of teacher, but it would be nice to have one. I think everybody is a leader in this program. We're lucky, every teacher in this program goes above and beyond and is a self-starter, but if you had a teacher that didn't do that, they would need a guide. So I just think it would be nice to have the guide there for those that need it but not be so bound by that guide. In the upper grades they are really rigid about following that guide and I think it is nice to have a guide, but it is really great to be able to have some flexibility – have the freedom not to use it, but have it there for those that need it. It is a starting point.

Participant 5: It is my first year of teaching and when I was in the education program we – I can think of maybe once in the whole four year thing that we saw the actual framework for pre-k. It is not even something that they put much emphasis on, so I could see where for me, it might have been nice to have had something to go by, but since everybody does meet once a week and share with me and Participant 2 is my mentor, I get everything I need...But it has worked out just fine the way it is. And actually, now that I'm used to it, I'd rather it be like this than like in the first grade program and even the kindergarten program where you have readers and all these books that you-worksheets I mean – that's what it seems to be a lot of – worksheets and that type thing.

Participant 6: I would say as second grade, kindergarten, and pre-k and it is nice to have something to refer to as a reference and to refer to when you're kind of researching new ideas that will be effective with a problem you might be having...It would be nice to have more resources at our fingertips, to not just be pulling from the air and pulling from other things that we can find. It would be nice to have some research based instructional

guides that we can look at and say “Oh, I like that.” But I definitely would not want to be forced to follow it...

The teachers are all very confident in their abilities to teach and work together as a cohesive unit, but they still wonder if other supplements could make a difference in their practice. Whereas the other groups of teachers in this study have general supplies and resources from which to pull, the group without resources must find their own to support the state frameworks.

The other two groups of pre-k teachers were not as forthcoming with their freedom to supplement, though in their responses the practice occurs often and with ease. One group used DLM Express Curriculum as their core for language, while the group with financial ties to Head Start was required to use Doors to Discovery as its core. Even still, both groups used the same program Handwriting Without Tears to supplement letters, sounds, and the handwriting portion of their curriculum. One group used Everyday Mathematics as their core math program while the others in the study pull in their own resources for math. Both teacher-guided and student-governed centers were evident in all three programs to reinforce academic and social skills and give the teachers the time to work specifically with individual or small groups of children.

Another reflective practice that the pre-k teachers continue to work to perfect is in the area of differentiation, working toward meeting the individual needs of students. Differentiation in its purest form is evident in pre-k as teachers observe students and work with them on an individual and small group basis to help meet a plethora of academic, social, and emotional needs. One teacher sums up the responsibility of the teacher to differentiate in the classroom:

I think an effective thing that we all do is in differentiation. I mean we do even more so than in kindergarten. In pre-k the children arrive to us in need of so many different things and some of them are not academic, and you differentiate what they need as far as that goes very well at this level. It is kind of a requirement of a teacher that teaches at this level to be that way. Some are going to be working on some of the things for a long, long, long, long time and you have to continue to help them feel a part of everything

that's going on as a really valuable part of the classroom. At the same time doing much different skill work and that's just something, I mean just being in each other's rooms, that we do very well. I think it is really important (Personal Communication, Teacher, March 23, 2011).

Another teacher in a different pre-k program confirms the sentiment of the aforementioned teacher by discussing the differences in the need to differentiate in second grade compared to her current pre-k class. The teacher realizes as a pre-k teacher that students are on many different levels. She mentions, "In pre-k in the middle of a lesson I had problems and had to modify the lesson because some kids are not on the same level as others. So I had to use a modified program to reach the learners" (Personal Communication, Teacher, March 10, 2011).

A rich example of how differentiation is a key focus in a pre-k classroom is represented through the following dialogue with one pre-k teacher group:

Participant 3: To me, it is our job to provide the resources, provide basically what we want them to do, and then watch them how they manipulate every center, every activity you have. They do it so differently because they all think so differently.

Participant 4: They just interpret it in different ways. You'll have one group over here that does one thing differently and then another group comes in and they are totally different.

Participant 1: We present information about a central unit in different ways. For example, our unit this month is called "Healthy Me" and is about taking care of ourselves and community helpers who help us take care of ourselves. We may sing songs which teach teeth brushing skills and/or act out washing faces/brushing hair during large group time. The teacher may read a book about the doctor's office or show picture cards of tools used by the dentist/doctor. In centers, information is presented through manipulatives—painting with toothbrushes, writing his/her name on a doctor's badge, role-playing the doctor's office in dramatic play, etc. In a nutshell, the same information is presented in a variety of ways to meet the needs of each learner.

Participant 2: Yeah, some learn better with us and some learn better together.

Participant 1: And they have those opportunities all throughout the day.

This group of teachers indicates their use of facilitation to determine exactly what each child

needs to be able to differentiate instruction. The use of both strategies enables each teacher to diagnose children's strengths and limitations and then prescribe the path in which a child learns best. As indicated by Participant Three, she provides the resources, facilitates the learning, and then provides instruction based on her observed findings. Even though no mention of anecdotal records is made, it is very clear to the researcher that each teacher in the study has a keen eye on children all throughout the day and is able to accurately pinpoint each student's needs.

What was surprising to the researcher is the prevalence of differentiation given to children with special needs at such a young age. Two of the three schools actually have a special needs pre-k class that serves both inclusion and self-contained students. Although the other pre-k group does not have a class for special education students, they still give priority registration to these students in their program. One special needs pre-k teacher serves three year old children with social, cognitive, language, self-help, and motor skill disabilities. Once the Least Restrictive Environment (LRE) is determined, the child is given differentiated instruction according to his IEP in either an inclusion or self-contained setting. The special education teacher uses the same curriculum but modifies the time and actual content to meet the individual needs of her students. The teacher reveals a snapshot of her modified, differentiated classroom when the interviewer asks how her environment differs from the other pre-k teachers:

Interviewer: How does your day look a little different (from the others) Participant Four?

Participant 4: It is a lot different. When my kids come in, what I call centers is different from what they call centers. I have three centers: (inaudible), Book Nook, and a kitchen center, and my kids rotate through those three centers for the first thirty or forty minutes and we're kind of guiding them through those centers. It is more of a play-based thing with them, and then I have two assistants. Also I'm pulling children one at a time and working on their individual skills.

Interviewer: Related to their IEP I'm assuming?

P4: Right, related to their IEP...I don't go as much by the current curriculum, but I try to find a literal book with pictures to do with them because I like for them to point to things that I am talking about. That's just something that is really important to me because a lot of them aren't exposed to those kinds of things. So we do that a lot...I try to do something very hands-on and craft-like where they are using a lot of their fine motor skills as well...They also work on the letter of the week, and during that time I use a lot of objects.

The special education teacher along with her cohort spoke of a high degree of almost daily collaboration in reference to how to differentiate according to the IEP to help some students. Some students need very little help other than a brief visit by the teacher to see how she may better support the child, or some children are pulled out for a bit to receive assistance in the special education classroom. Others remain for the full day and participate in most of the activities previously mentioned in the script. The dialogue among the teachers in this group was one of respect and a strong desire to help pre-k students with special needs, and they know the targets needed to help prepare that sub-group of children to be more successful in kindergarten and other grades.

### **Collaboration as a Component of Instructional Leadership**

A major component of instructional leadership is how well one collaborates with his constituents and is the focus of questions three and four from the focus group interviews with a specific emphasis on early literacy. The questions were as follows:

**Research question 3.** In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?

*Focus group question 3.* Describe specific instances in which you have collaborated together (teachers and/or administrators) to make decisions in your programs concerning early literacy.

**Research question 4.** When collaborating with others concerning early literacy

instruction, what specific instructional steps are taken to ensure fluency and comprehension?

***Focus group question 4.*** What are some specific changes you have made in your program as a result of collaboration with teachers and/or administration to improve students' fluency and comprehension?

The premise is to evaluate the extent to which collaboration plays a role in the planning of early literacy instruction in pre-k given that the quantitative portion of this study involves oral reading fluency and comprehension later in second grade. As mentioned previously, five focus groups participated, three groups of pre-k teachers and two groups of district and school administrators. The same macro and micro-level leadership found in responses to questions one and two holds true for responses in questions three and four as administrative collaboration is heavy during the onset of the programs but falls off sharply as time goes on. Within groups of teachers, however, collaboration is relatively strong as they work together to enhance the content and pedagogy of their respective programs. Three themes emerge in questions three and four: (a) Collaboration Among Administration and Pre-K Teachers; (b) Collaboration Among Pre-K Teachers; (c) Collaboration with Head Start.

### **Collaboration Among Administration and Pre-K Teachers**

It is evident that at the inception of all three programs collaboration was strong as stakeholders worked together to shore up funding, hire staff, and plan early literacy instruction. A superintendent sums up the overall feelings of the initial stages of his pre-k program when he states, "We all know if they start off well, they're going to be successful more than likely all the way through" (Personal Communication, Superintendent, February 23, 2011). The

superintendent's sentiment is shared by all who begin pre-k programs in hopes of giving students a strong start that will transpire into even more achievement in the latter grades. Thus, a goal of this study is to support or refute the notion that the longer term effects hold true for students having been through a high-quality pre-k program. The principal of the same pre-k program describes in detail her role in working with teachers to determine what exactly was to be taught the first year:

So really the leadership that I have had to focus on is first of all just getting pre-k going, and that's a big deal in our state. It needs to be more widespread, and there are lots of districts that have the wherewithal that don't have a pre-k program. So I am proud that our little district was able to get this going. And then, what are we going to teach at pre-k? At the building level, the superintendent counts on me to know what needs to be taught, and then I communicate that to our teachers what needs to be taught from both the social side, which is a big deal in pre-k, to the academics. And, again, motivating those teachers to do it, making sure that on the management side we have the facilities and equipment that is appropriate for four-year olds, those kinds of things. So all of that plays into it.

The heavy involvement by the superintendent and principal is clear, and there was obviously a high degree of collaboration between the two. The principal is also keenly aware of both leadership and management responsibilities in developing a pre-k program. As for collaboration between administration and teachers, most occurred with the assistant principal who no longer works at the school. The principal came during year two but obviously became involved immediately in pre-k decisions based on her responses. The teachers who have been there since the beginning recount the role of the assistant principal as stated in the following excerpts of the discussion:

Participant 1: She (the principal) wasn't here the first year, but during the second year she was.

Interviewer: So the one you spoke of earlier was the assistant principal at the time? (nods in agreement) Speak to that if you will.

Participant 2: Well, her child was in Participant One's class so...

Participant 1: Her child was smart, so she wanted her pushed. Her child couldn't do everything she thought she could do, but she was a very smart child. To me the early literacy I think about was when she had come up with us doing these cards... Anyway, the assistant principal used these letter/sound cards in kindergarten with another lady, plus the assistant principal was a speech pathologist herself, and so we used the sounds that she had given us for each letter that also had a sign to go with it. I think it came from something speech based.

Participant 1: ...So the assistant principal had come up with that and we talked to the kindergarten teacher and she said it worked really well with hers in kindergarten. We loved that idea and did it right away. ...The assistant principal had said something to us about the books...she had lots of information. She had given us these books that are more like a one word book. Like if you were doing flowers, one page might be daffodil and the other daisy. Students were getting the concept of how to turn the pages of a book, but it wasn't a sentence; it was just one word. That was okay to start. We started with those but didn't like them that well because they were small, so we used some of them but then found some other books. We do books throughout the year by incorporating them into something, but this is more of a focus on having these books daily in my center. Every day we read through the book. We go over how to track the print in the book. The ones who are ready, we point out that the word is "a" not "the". Some of them just need to track it.

Interviewer: So you all have made a change in that you now have books that have more words in them than just a single word on the page?

P1: Some of them. We've just done ones if we find them. Like this week we're doing spring so we found the book *What is a Butterfly*. ...But the assistant principal did give us that concept, and after she told us it did make sense.

The researcher wonders the true motives behind the decision of the assistant principal to collaborate: personal interest or the interest of all children in the pre-k program. Regardless, it is very evident that the assistant principal had some background in early literacy that was of some benefit to the pre-k teachers. The question is whether or not this was true collaboration or a directive from the assistant principal that could have been fueled by a special interest in providing what she felt was best for her daughter. The researcher was interested in seeking an answer to this question:

Interviewer: So what did that collaboration look like, was it a mandate that you really need to do this, was it...

Participant 1: I think it is a good idea.

Interviewer: I think it is a good idea?

Participant 1: I think it is a good idea, and I think you should try this.

Interviewer: So you tried it and what was the follow-up?

Participant 1: She's just saying her child needs to be doing this.

Participant 2: Kind of hating it...

Interviewer: So you went into it gritting your teeth a little bit?

Participant 1: Not on the sounds but on the book part because we thought that it was way ahead of some and it still is. It really did work out to be a great idea.

Participant 3: It is a good introduction anyway.

Participant 1: It is set up different now okay. Now there is no assistant principal and from the very beginning it was me, Participant 2, and the assistant principal that were in the weekly meetings.

Interviewer: So you all were meeting weekly at that time with the assistant principal?

Participant 1: We were during the first year. After the second year, I had the assistant principal's daughter. So I think that's why we didn't...maybe she thought we couldn't say what we wanted or whatever I don't know. And they're busy, of course they were always open if we had questions, but it was probably the second year when...And it could have been that we came to her with a question and she came up with that idea of the sounds because when we did have children that we felt were behind, she was the one we'd come to and say what do we do.

Participant 2: What can we do differently?

Participant 1: What can we do differently? Do you have any ideas? And so she's the one. We actually haven't talked that much to the current principal.

Interviewer: ...In a nutshell, I'm hearing you all say during the onset of this program there was more collaboration, but now it is more you all have the autonomy to do what you think is best for kids. And I'm assuming that if you had an issue, that your principal would support you all.

P3: Oh yes.

P1: Sure. She would.

While the motives of the assistant principal are unclear, one thing is for certain; true collaboration whereby administration and teachers could have discussed pre-literacy decisions and backed up those decisions with research was replaced with a strong suggestion by the assistant principal to try a new strategy. It is evident that the teachers felt as if they really had no say and had the added pressure of doing something for the assistant principal's daughter. Unfortunately, this preferential treatment of children of school personnel is common in education rather than looking out for the best interests of all children. While the teachers appreciated some of the contributions of the assistant principal and even asked her for advice at times, the trust and comfort level in approaching the assistant principal with problems with her suggestions like implementing the books was lacking. Perhaps the assistant principal was a more directive type leader who lacked the skills to effectively engage in a synergistic conversation when approached with a question. Therefore, the teachers may have felt as if the decision was a directive rather than one in which they had some say. The current principal has obviously made the decision, whether an effective one or not, to give total autonomy to the pre-k teacher to make decisions about early literacy and provides support only if the need arises.

One group of administrators responds to the questions of early literacy with accuracy and specific instructional examples, so the logical conclusion is at least moderate collaboration on a regular basis. An example lies within the following dialogue:

Participant 3: Two years ago we had a lot of the Sunshine Books, and we had a lot of pre-k children that began to read, so they had some Sunshine Books that were being stored and they brought them into their classroom.

Interviewer: That's come up before. What's a Sunshine Book?

Participant 3: It is a reading program that starts at a lower level and increases in difficulty.

Participant 4: Also sight words. The teachers do sight words, and that's wonderful.

Interviewer: In pre-k?

Participant 4: One teacher is constantly...

P1: Word-wacking...

Participant 4: ...flashing the cards or asks if you're standing on the word come line up. It is just really neat how they do it.

Participant 2: It is a literacy-rich classroom. They sit on the letter or word or something in the chairs...just everywhere.

Participant 1: I'm sure the brain folks would say oh there's too much going on in this classroom, but it is good stuff.

Participant 4: Oh it is great stuff.

Participant 2: You never know until you're exposed.

Participant 1: The kid that hunkers down in the corner, you might say yeah this is a problem here, but in my visits, they all seem to be interacting appropriately and positively with that language-rich environment.

Participant 2: Opportunities to choose where they want to go...they teach them all of those independent things.

Participant 4: Also the number. There are 16 in each classroom. To me that's just absolutely perfect for different people to interact and yet the teachers can individualize a good bit with two teachers and 16 kids.

Interviewer: It sounds like to me they are just saturating them. Would you say that's a good word?

P4: Wonderful!

Interviewer: Saturating them with early literacy components.

Although the group is very knowledgeable about instructional components of the program, specific

instances of actual collaboration with teachers never surfaces throughout the interviews with both administrators and teachers of this program. The researcher is led to conclude that while the administration may be visiting these classrooms regularly, true collaboration between administrators and teachers on a regular basis is lacking or even non-existent in some cases.

The closest example of collaboration from a district and school perspective comes from an example of a former principal's attempt to engage her staff in meaningful staff development as evident in the following dialogue:

Participant 6: I want to mention something that I miss about our former principal. After you've been teaching for a long time, you really start to get hungry for more ideas...I feel like I've had a principal before who was just hungry and addicted to research and would read and share and weekly we would have an article in our mailbox to look at. I am sure some people just were unnerved by all this, but it was so interesting. You didn't have time to read every one of them. You didn't have time to implement every one that you saw, but you would get things that would hit you and say "That's exactly what I need." I feel that as an educational leader and instructional leader that is such a vital part of your role and I really liked that. We even looked at copies of books. Participant 2 was teaching at that time too, and I think we've talked before how much we liked that.

Interviewer: You were fed.

Participant 6: We were fed and we were able to kind of even get little pieces of things that we as parents and teachers don't have time to go read and find new ideas in this book and get this one page that was really good out of this book, and she would and that's great.

Participant 2: I had the same principal, and I want you to know that even after she left, she still emailed me things. It was nice because I don't have time to read those professional journals. It was great to have. It would be specific for pre-k and circled.

Participant 6: Then she'd stick it in our box.

Interviewer: So it wasn't necessarily a formal collaboration where she would say, "Let's talk about this article."

Participant 2: No, it was just an article about pre-k.

Participant 6: It was some of that. We'd get a book. Then we'd say "Okay, we're going

to read chapters one through three and then we will meet about that,” like a book club kind of a thing.

Participant 4: ...It is nice to have the administration not breathing down our necks, but it might be helpful to have some helpful tips or ideas, so it is kind of a double-edged sword.

This group of teachers has been teaching for quite a while and expresses a desire that so many veterans in the field echo: to be life-long learners. Their desire was being fueled by the previous principal who obviously understood how to be an instructional leader. It has been this researcher’s experience that while the collaboration of a book study can be laborious, time-consuming, and not always widely accepted by the staff, in the end most staff members have similar sentiments as the group above in that they learn new strategies to add to their repertoire. The principal was clearly an instructional leader who valued current research and communicated that to her staff which most likely was a benefit to students in the classroom.

In all of the focus group interviews, collaboration among administrators and teachers was lacking. The question remains whether consistent collaboration with an emphasis on early literacy will positively impact student achievement. While the level of autonomy and trust is high in all groups, the effort to continue collaborating together as a whole is not being pursued.

### **Collaboration Among Pre-k Teachers**

The second theme emerging from the data is the evidence of collaboration among pre-k teachers, both formal and informal in nature. Surprisingly, informal collaboration occurs most often and is typically brief and affirms what the individual in the group is doing, and some new knowledge is acquired. Formal collaboration occurs less often, typically 30 minutes to one hour per week, and involves more planning, revising, and enhancing of instruction to improve pedagogy in the classroom. This researcher is somewhat surprised with the imbalance of the two

types and believes it raises a valid question as to which is more effective.

**Informal collaboration.** This type of collaboration takes on many forms depending on the pre-k classroom visited. Informal collaboration is the broadest form of collaboration of the two because it can take place virtually anywhere from discussions on the playground, passing each other in the hallway, or visiting another's classroom. There is a high degree of trust in the expertise and creativity of each member within each pre-k group making it more likely that ideas will not only be shared but replicated.

The two main obstacles to formal collaboration that forces more informal collaboration are time and proximity. Two of the three groups mention a weekly staff development time where there is truly a substantial block of time to plan together. The other group spoke of planning during nap time, in the halls in passing, and even on the playground. In one of the pre-k groups, a new teacher's proximity to the other teachers' classrooms is a serious hindrance to informal collaboration, although the teachers next door to one another tend to do much more:

Participant 2: Our rooms are right next door, so nine times out of ten, if my class is doing it, Participant One is doing it. We're sharing, swapping out days...

Participant 1: When we started, it was just me and Participant Two, so the Assistant Principal had us weekly planning things and she basically looked through our lesson plans. Then she didn't do that anymore, so then the Special Education Class came along, which is totally different from our class. They brought the curriculum in the second year or the middle of the first year...

Participant 4: I had it my first year but I really had to modify it.

Interviewer: But I think I heard you guys say a minute ago that you collaborate more when your kids (SPED) go into their rooms. Is that fair?

Participant 1: Yes, I think so. She will come into our room and look at the ideas in our folders to see if she likes them. If she wants to use them or if she doesn't, it is up to her. We definitely collaborate as far as if they are my ideas or in my folder, she is welcome to them, but we don't have to do the same thing. Participant Two and I do that because that is how we've done it and it works well. Last year when we had the former teacher, she

was Participant Two's assistant, so she knew what me and Participant Two were doing when she started her own class. It was easier because she had already been in Participant Two's class a year, so she did more of what we did as far as we know. She would throw in extra stuff she liked, but she did a lot of the same things we did. So when Participant Three came in, we pretty much told her how we had done it and she could do it that way or her way. There's nobody saying we have to do it one certain way.

Participant 2: But if she likes it and it works and benefits the kids, go ahead and use it.

The informal sharing of ideas is somewhat irregular because those who have been at the school since the onset share what they are doing, and the teachers new to the group can use it or not.

There is a lack of informal discussion concerning matters of instruction, grading, student performance, and other aspects of teaching. The new teacher goes on to state more reasons for the lack of collaboration:

Participant 3: The former teacher had copied all of the plans they had done for me, so I have that for every unit. So I can look on there and if I see something I can ask for it or come up with my own thing. But I can certainly follow because we do the same letters and the same things, so I'm consistent with that. But as far as having the time to sit down and collaborate, I don't. And then sometimes it is just easier unless I have a hiccup just to do how I'm doing it and follow the curriculum in the book. ... We've started working on a book for the remainder of the year, so I have to borrow the little books, but most of it on the playground I may ask a couple of questions here and there.

Interviewer: So is that your collaboration spot, seriously?

Everyone: Yes.

Participant 1: Yeah, we just leave it open since this is her first year.

Participant 3: And my room is all the way at the end of the hall.

Interviewer: So you're not anyone near their two rooms?

Participant 1: And with it being her first year, she doesn't have to do what I do. My way is not the only way, so we tell her she can do whatever she wants. It is her room, she's a certified teacher, if she wants our ideas fine if not that's fine too. That's the way I would want to be treated myself as a first year teacher. I would want someone to offer help if I needed help, but I'm certainly capable of doing things myself. That's just the way we left it.

Participant 3: And I think another thing is none of our classes are the same. So I could take the easy way out and go and say give me that worksheet or whatever, but my kids may not respond to that like her class. I know just by being on the playground that we don't have the same makeup of kids. So really my mind is not really focused on what they are doing, it is just how I am going to accomplish what I need to do for my class. And then if I'm like, okay I don't have a center, then I might...

Time and proximity are certainly limitations to the group in spending more time in collaboration together. The teachers are extremely independent, experienced, and have a strong desire to work in isolation, creating a barrier to collaboration. The group engages in some surface-level collaboration because they share materials and use the same book. Still, very little discussion takes place about how the resources are affecting children. The teachers do, however, share a dialogue about expectations for pre-k and kindergarten at the beginning of the year for the new pre-k teacher:

Participant 3: And maybe it is because I had taught before and had just come from kindergarten, so maybe I didn't need to ask for so much help. Honestly, I was away from teaching for a while and I've just come back so I'm real gung-ho, excited, and I've got all these ideas. So it is like I'm going to try this and then if I need something, I mean I've got children I ask Participant 1 about like what should I do? What should I say to the parent? I've gone to her about things like that to see what they would do. What do they expect them to walk out of pre-k with to go to kindergarten?

Participant 1: And there are things with her doing kindergarten too, I've never done kindergarten, so it is little things like she was bringing up about the book. It sparked a conversation, and I was like yeah we start books. Our former assistant principal came up with the idea of us doing a book for the whole week at the teacher center, so I was telling her about that and she was telling me about some of the problems in kindergarten like them not being able to hold book. I told her that I think most of ours can because we started this...So she was able to tell us some things just by being in kindergarten. And different kindergarten teachers have different ideas about like the name writing and other stuff, and so I was asking her what she thought.

The other two groups are polar opposites from the aforementioned group. There is an unmistakable enthusiasm among these two groups as they share ideas and work together to solve problems during one hour planning sessions each week. They try to meet with each other as

much as possible during other times of the week, and their desire to work together is very genuine. One teacher spoke of being leery of another's idea of incorporating sight words into their curriculum because she just did not think it was developmentally appropriate. The teacher who made the recommendation is a former first grade teacher who knew the expectation, so the doubting teacher gave it a try. She states, "I even have parents today of pre-k children before who said I really felt that was developmentally inappropriate, but it has done wonders with the children being able to read" (Personal Communication, Teacher, February 22, 2011). The teacher was willing to be open to a team member's idea and take a risk that continues to pay dividends for the children today. One teacher speaks to the dynamic of two new teachers coming in and how the change affected the curriculum. She replies, "Participant Four brought in more ideas and Participant Three came in with more ideas, and it has changed even more with four of us" (Personal Communication, Teacher, February 22, 2011). With excitement, the teacher was quick to exclaim:

Participant 1: To see us on a daily basis, this is what we do. I will be in here and say, "Hey, that was a great idea!", and I'll run from her room and I mean literally run down the hall and say, "Let me tell you what we just did, hey try this!" Or we're going to go outside at this time instead of this time because we're doing this a little longer. It is constantly changing so...

Participant 3: a lot of collective collaboration, so you have to be flexible

The sheer joy in not only teaching pre-k but working together to accomplish it shines through in the response by Participant One. This group clearly has a love for teaching pre-k and a great devotion to each other in collaboratively doing what they think is most appropriate for their children. Participant Three is one of the newer members of the program and speaks to the importance of collaboration for a new pre-k teacher who has come from a higher grade:

When I came in last year, I didn't even know I was so up here and they were so down

here. I was so used to popping stuff off the top of my head for third grade and coming up with something just like that. And then I came here and, ooh I've got to bring it down 10 notches. And so planning together and planning those writing activities...sounding out their rhyming words and the rhyming word activities that help us read the books when we have their sight words. I would never have thought of so much of that stuff if we hadn't planned together just because I was not trained in that way. When you're used to doing something different, it takes a little while to change your ways (Personal Communication, Teacher, February 22, 2011).

Some of their most recent changes in addition to adding sight words included number words, number songs, and color songs. In a comment concerning the changes necessary when collaborating together, one teacher replies, "The program is only six years old, so it is still trial and error" (Personal Communication, Teacher, February 22, 2011). The teacher clearly has a life-long learning attitude about the program and is not satisfied with the status quo complacency that sometimes plagues educators. Perhaps the comment by another teacher in the pre-k group simplifies the necessary ingredient for successful teamwork, "you have to be flexible" (Personal Communication, Teacher, February 22, 2011).

A similar mentality of teamwork and genuine enjoyment of working together was also very prevalent in the responses of the final group. The group collaborates on almost a daily basis in some manner and once a week formally for 30 minutes to one hour. One can feel the passion in their comments on working together:

Participant 4: We meet every week to discuss ways to meet our competencies that we're trying to teach and collaborate with each other on language arts, math, science, and social/emotional...Once a week we actually meet to plan for 30 minutes or an hour, and then the rest of the week we're all emailing each other saying "Here's something I found or here's something I made." And we go copy each others' things that we have in our folders...

Participant 6: That's daily. Honestly, probably every day somebody...

Participant 2: ... sends something to each other. I just want to say we don't have to meet. It is such a small number and we really seem to all get along and love what we're doing...We enjoy each other's company...I don't know what it is like in other schools,

but I don't hear teachers talk about meeting with other teachers. We get together outside, I wouldn't say a lot, but we get together and do things together outside the school like Christmas parties, lunch, whatever, and I think that helps.

Interviewer: You all really like each other so you don't have to act like you do.

Participant 2: ...We really want to meet the needs of these kids. If we had one in the group that just wanted to get a paycheck I don't know that it would be like that. I think there would be some tension.

Participant 3: I think that we all have high expectations for our program and sometimes we kind of feel like we're in the spotlight wondering "Is our program really necessary?"... We feel like we have high expectations expected of us and we want our program to be successful, and everybody's got different ideas and good ideas, and so we just bounce those off of each other.

Participant 4: ...All of us do a lot of poems and a lot of reading of poems, core reading, echo reading, big books and things to address the fluency. And then the comprehension, we do a lot of story retelling, writing about what we've read, lots of questioning, working to be sure that the children understand. Of course some children understand at a higher level than others, but we do a lot of higher level questioning to be sure that the children understand the story. We do a lot of re-reading of stories to get that comprehension in. We do a lot of books with interesting words like "Not I said the hen" and The Three Little Pigs, "not by the hair of my chinny, chin, chin." We do a lot of rhyming books and things, pausing and letting them fill in the blanks. Once you read a story more and more times they understand it better and I have puppets and a puppet theater, a lot of us do, and we let them retell stories with puppets.

This is an extremely loyal group of teachers to their district, school, children, and each other. As the researcher, this was perceived as a very genuine, non-threatening teamwork whereby all members of the group are risk-takers with high expectations.

**Formal collaboration.** It should be no surprise that the team who expresses the most passion for teamwork also has the most specific descriptions of exactly how they address early literacy during their more formal planning meetings. As stated previously, two of the groups collaborate approximately 30 minutes to one hour a week and discuss detailed plans for how they are teaching reading, and they discuss specific problem areas with pedagogy and specific students. The group that is most specific about the weekly meetings describes a typical

collaboration session:

Interviewer: What are some things you all have really worked hard together on in the area of literacy?

Participant 6: I think pretty much every week when we plan together, we will bring in literature that we feel would support the skills and thematic unit that we're going to be beginning. We share books. We email each other different projects to do as far as phonemic awareness goes. At this level, fluency is going to be based on what we can do with them now with phonemic awareness, training their ears to break apart words and just hearing the sounds and syllables. I think with comprehension, we do so much of that. Concepts of print, sitting down starting at the very beginning with reading and literature and letting the kids identify the parts of a book. Then we move into letting them retell the story. We share like flannel board pieces for the kids to act out these stories and do more things as far as developing comprehension. But we're like the very beginning of those skills.

Participant 4: We all have share time where the kids can speak orally. We all have journal time with the children whether it is in spiral journals like several of us have or we have journal writing every week or just on a sheet of paper where they write, illustrate, and once again sharing the books and ideas.

The team of teachers also realizes the importance of getting the parents on board early with reading to their children and generally being involved in their child's education. They share the extra work with each other when it comes to creating communication media for families. This dynamic was not prevalent in the other focus group interviews but they recount:

Participant 6: I know Participant Two at the beginning of the year shared some information that we could give to all of our parents educating them on the writing process of a child...And then we also have some information to send home about concepts of print to inform the parents about the early skills that they need before they just start memorizing letters.

Participant 2: Also, we try to talk about things to send home in our newsletters which we all do weekly to send home to our families, just tips or things like that. I know Participant One is good about sending it to us, and then we just cut or copy and stick it on there. It kind of helps keep our parents informed of what's going on or something we may be working on specifically with literacy like rhyming words.

The researcher finds it compelling that this same group who is so specific in how they are addressing early literacy skills is the same group who has no formal programs from which to

teach. The group follows the state frameworks and works together to get the job done. The idea that effective teaching is really all about the teacher is one of the most reliable findings of educational research. In no way is the researcher implying that the teachers in the other programs are not as effective as the ones in the aforementioned group. Programs are effective tools for the teacher, but it is what the teacher does with the program that makes the difference. Just maybe having a program does require less collaboration since it is typically packaged and the teacher can easily utilize the resources and implement the program. It could be possible that having a group of teachers who work together on a consistent basis to implement a program is more effective than in isolation. Perhaps not having the programs and resources a teacher needs propels them to work together in an effort to design a program that can be most effective, a sink or swim together mentality.

### **Collaboration with Head Start**

Two schools in the study partner with Head Start, and Head Start actually provides some funding for the programs. One school only has an inter-local agreement whereby they work together to serve students with special needs. One of the schools with financial ties has almost no collaboration with Head Start and has yet to receive supplies promised to them by the organization. The other school with financial ties shows quite a bit of disdain toward Head Start in what is a very fragmented relationship. The teachers speak of a bureaucracy where representatives come to the school to count snacks, lunches consumed, papers filed, home visits and parent conferences made, and many other rules and regulations that have nothing to do with what the children are learning. The administration spoke in detail about teaching requirements, staff development, and the overall relationship with Head Start:

Participant 1: Something that bothers me a little bit is that we freely use the term teacher

to talk about both groups of people. In actuality, the assistant teachers in our school district, in more cases than not, are way more prepared to be an instructional leader in a classroom than folks that they call teachers because they're not required...

Participant 2: They changed their requirement this year.

Participant 1: But again, they don't have to have a license. They have to have...

Participant 2: A two year...

Participant 1: ...degree. I think it is getting better but...

Participant 2: ...it needs to get a lot better...

Participant 1: ...Head Start will boldly tell you that they are not an educational agency but they have, well I've changed location, so therefore I've changed groups that I have to deal with. ICS is very receptive to the concept that they are an educational agency as well as a social agency that's there, and not every place does that.

Participant 4: ...They have people they bring in to those trainings. We actually presented at one of the trainings, so they have like a variety...

Participant 1: ...I think that any training that takes place with ICS is because we are meeting a mandate with them, but it is meeting the standard. Again, I haven't sat in on them, but I've been doing this for 26 years and I know what they call professional development.

Participant 2: ...I would say it has gotten a little better.

P1: I think ICS is trying to do better.

Participant 2 and Participant 4: They are.

Participant 1: But they have some limitations. They've got federal regulations where they are scared to get too close to that line and I understand that.

Participant 3: We have our levy service meetings every month where if our needs aren't being met, like supplies has been an issue...

Interviewer: ...Could you speak to that meeting a little bit Participant Two? What does it look like?

Participant 2: A lot of times it is just a come and speak what's going on deal. At our last meeting, a guy from a neighboring county just came out and said, "I don't know what you all are doing over there at ACI, but when they come to our school they just don't

know a thing.” I was thinking I can’t believe it actually came out of your mouth!

Interviewer: So did that lead anywhere?

Participant 2: It did, but they stopped it pretty quickly. We will visit with you later!

Interviewer: So there’s typically not any training for you as leaders of the program but typically just a time to share what’s going on in your programs?

Participant 2: Sharing what’s going on. Seeing what’s needed. Any new updates that are coming. Things that they probably could send in a memo.

The administrators are of the opinion that what Head Start constitutes as staff development is nothing more than a required mandate of the program whereby administrators come together to report on their programs with little to no true training or support to administration. There is a glimmer of hope in the relationship between the district and the local Head Start (ICS) as they are recognizing the effort being made to improve the local center. The disparagement is implied to be more toward Head Start as a collective entity.

Another positive partnership exists between one of the other districts that has no financial ties to Head Start:

Participant 1: Yes, and we do try to collaborate with Head Start. We met with the director of the Head Start Center here and the ICS person from the regional agency. They are working on more of a social kind of environment that is very, very active. And I understand that, but we are working on an active, passive, active, passive day where children do learn to sit for small periods of time and that is not a goal for Head Start. From what we have learned from Head Start is that they do not ever teach anything in a whole group setting. It is all center kinds of activities with children moving around the room all the time. We really do try to introduce a lot in a whole group environment. Of course, we know that they cannot sit for more than 10 minutes or so at a time in kindergarten; however, it is important that they learn to attend to instruction. So that is one of the beginning goals.

Interviewer: How often would you say that you collaborate with Head Start?

Participant 1: On a formal basis, three times a year. On an informal basis, we have children that come from Head Start over to our school that actually ride the bus to our building and the teacher rides with those children. We invite Head Start children to our

building to see it, and our kindergarten teachers go out to Head Start in the spring to participate in the transition program that ICS offers.

Participant 2: They do ask for our input and Participant One has sent teachers out there to observe, give advice, and so forth.

Interviewer: Maybe training?

Participant 1: I have sent teachers out there to give demonstration lessons.

Participant 2: So there is collaboration there.

Interviewer: So you have a partnership?

Participant 1: Yes I would say that...definitely.

Participant 2: They actually have in-service trainings and our assistants and teachers try to collaborate with the Head Start teachers and try to get some of those teachers over here to watch our teachers to see exactly what they're doing as well as us watching them so we can all be on the same page as far as strategies. In-service this year was only once in March. Our teachers actually presented for the teachers last year. It has been a good thing at least once or twice a year.

The tone of the aforementioned conversation was much different from the previous discontented one. The focus of the conversation was more about the partnership locally, whereas the strong feeling from the disgruntled superintendent was due to 26 years of frustrating relationships with Head Start. The team that collaborates best with Head Start takes advantage of opportunities to work together to share best practices with one another to improve student outcomes. Perhaps the lack of financial ties creates an even playing field between the school and Head Start Center to collaborate effectively. Regretfully, the researcher did not include Head Start in the focus group interviews that would have helped to gain better insight into the comprehensive relationship between the two entities. The peculiar relationship between the two was not expected, and the exclusion of Head Start was not intentional. One thing is for sure, much work is needed to cultivate the relationship between school districts and Head Start, especially in Mississippi where

most students attend Head Start to prepare for kindergarten.

Chapter IV is a summary of both quantitative and qualitative findings of this study. Significant differences were found between all three groups in the study and both Hypotheses One and Two were rejected. Six themes were extracted in the qualitative data and sub-divided into two major categories for discussion. The instructional leadership component contains the themes of instructional leaders as foundational, facilitators, and reflective practitioners. The second category of discussion involves the collaboration component of instructional leadership and includes collaboration among administrators and teachers, among pre-k teachers, and with Head Start. The forthcoming Chapter V includes a summary, conclusions, implications, and future recommendation for the study.

**CHAPTER V**  
**SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS**  
**FOR FUTURE RESEARCH AND PRACTICE**

**Summary of the Study**

Researchers in the field of preschool and early literacy for the most part have reached a consensus that there are significant positive effects for children's social, emotional, physical, and academic well-being when entering kindergarten (Barnett & Jung, 2007; Gayer, Phillips, & Dawson, 2005; Munoz, 2001). Yet agreement has not been unanimous concerning the long-term effects of pre-k whether or not the positive effects remain as strong as the child progresses through the grades (Hustedt, Barnett, & Jung, 2008; Hustedt, Barnett, Jung, & Thomas, 2007; Yao, 2008). Southern states rank the highest in providing high-quality, state-funded pre-k education according to The Southern Education Foundation (2007), still Mississippi has yet to fund the first of such programs and is the only state in the southern region left to do so (NIEER, 2007). The Southern Education Foundation (2010) denotes that state-funded pre-k in Mississippi could reduce grade retention rates and crime, in turn creating more active members of society to support Mississippi's productivity, tax base, and quality of life for its citizens.

**Quantitative Summary**

The purpose of this mixed methods study is to examine the impact of pre-kindergarten on academic achievement and instructional leadership. More specifically, the quantitative portion of the study determines differences in reading comprehension and oral reading fluency scores among students who attended pre-k, Head Start, and those who attended neither. Two separate

hypotheses are developed to determine if differences exist in reading comprehension and oral reading fluency scores among the three sample groups.

Three pre-k programs from three school districts in Northern Mississippi are included in this study. The original population for the quantitative portion of the study included all second grade students who had attended a pre-k program in the southern portion of the United States. The researcher realizes that the population is too broad to be able to generalize the findings back to the population and has revised the population from the original prospectus to include all second graders at the three schools in the study for a total of 716 students. The largest portion of the population is 458 students from the No Pre-K Group. Since there are so few who attended a public pre-k program (127) and Head Start (131), the researcher has decided to include all members of the two groups in the sample. A random numbers generator was used to determine the 130 of 458 included in the final sample for the No Pre-K Group to keep the sample sizes similar. A volunteer from each school has gathered information on each student including pre-k status, STAR GE, STAR Est. ORF, gender, ethnicity, and socio-economic status. Each volunteer submitted data in Microsoft Excel format without student identifiers, and the data were then downloaded into SPSS. One-way ANOVA tests were performed in SPSS to determine if differences in reading comprehension and oral reading fluency exist among the three groups in the study.

### **Summary of Quantitative Results**

There are two quantitative hypotheses for this study. Quantitative Hypothesis One investigates whether or not a significant difference in the mean STAR Grade Equivalent (GE) exists by pre-k status. In other words, is there a difference in the reading comprehension level of students among the No Pre-K Group, Pre-K Group, and Head Start Group? The STAR GE has a

between group variance mean square of 18.609 that is substantially higher than the within group mean square of .833 indicating a significant difference at the  $p < .05$  level in STAR GE scores for the three groups:  $F(2, 385) = 22.347, p = .000$ . Strong significant differences ( $p < .01$ ) were found between the No Pre-K Group and Pre-K Group ( $p = .007$ ); No Pre-K Group and Head Start ( $p = .001$ ); and Pre-K Group and Head Start ( $p = .000$ ). Therefore according to the data, Hypothesis One is rejected at the alpha .05 level.

Quantitative Hypothesis Two determines whether a significant difference in the mean STAR Estimated Oral Reading Fluency (Est. ORF) by pre-k status exists. Simply stated, is there a difference in the number of estimated words per minute a child can read between the No Pre-K Group, Pre-K Group, and Head Start Group? The STAR Est. ORF for this study has a between group variance mean square of 21152.713 that is substantially higher than the within group mean square of 911.076 which indicates a significant difference at the  $p < .05$  level in STAR Est. ORF scores for the three groups:  $F(2, 385) = 23.217, p = .000$ . The data suggest significant differences ( $p < .05$ ) in mean STAR Est. ORF for the three pre-k status groups, some of which are considered to be of strong significance ( $p < .01$ ). Specifically, strong significant differences ( $p < .01$ ) were found between the No Pre-K Group and Head Start ( $p = .000$ ) and Pre-K Group and Head Start ( $p = .000$ ). Statistical significance ( $p < .05$ ) was also found between the No Pre-K Group and Pre-K Group ( $p = .012$ ). Therefore, Hypothesis Two is rejected at the alpha .05 level.

### **Qualitative Summary**

The researcher follows a phenomenological approach in the qualitative portion of the study to determine the degree to which school instructional leaders collaborate to make decisions concerning their pre-k programs. The 22 participants in the focus group interviews- two

superintendents, one deputy superintendent, one federal programs director, two principals, one assistant principal, one lead teacher, and 14 teachers - provide rich insight and a wealth of knowledge into the phenomena of instructional leadership in their perspective pre-k programs during each hour-long focus group interview. The focus groups include three groups of teachers and two groups of administrators for the three schools represented in the study. One focus group was unable to fulfill its obligations due to multiple scheduling conflicts. The researcher has recorded the interviews via two digital recorders and has transcribed the data. The researcher has sent a copy of the transcribed data to each participant for revisions, which have been made on the final copy of the transcript. Data and recordings have been stored in a locked room in the researcher's home when not in use and will be deleted at the conclusion of the study.

### **Summary of Qualitative Results**

The instructional leadership role, specifically the collaboration aspect, between administrators and teachers is investigated in qualitative portion of the study. The degree to which administrators and teachers in Mississippi schools collaborate to make more synergistic decisions in addressing the early literacy skills required for students to become more fluent and comprehend more efficiently is the premise of the four research questions posed to five focus groups.

A total of six themes have been extracted from the data and are sub-divided into two major categories for discussion. The first section entitled Instructional Leadership in Mississippi Pre-K Programs, based on questions one and two, includes the following themes: (a) Instructional Leaders as Foundational; (b) Instructional Leaders as Facilitators; (c) Instructional Leaders as Reflective Practitioners. The second category entitled Collaboration as a Component of Instructional Leadership, based on questions three and four, contains the following three

themes: (a) Collaboration Among Administrators and Teachers; (b) Collaboration Among Pre-K Teachers; (c) Collaboration with Head Start.

The qualitative portion of the study includes data extracted from four focus group questions derived from the original four related research questions as represented below:

**Research question 1.** Describe instructional leadership in your school.

*Focus group question 1.* What does the term instructional leadership mean to you in terms of pre-k education?

**Research question 2.** What aspects of instructional leadership are the most and least beneficial? Why?

*Focus group question 2.* What are some effective and ineffective practices that each of you exhibits as instructional leaders in your pre-k programs?

**Research question 3.** In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?

*Focus group question 3.* Describe specific instances in which you have collaborated together (teachers and/or administrators) to make decisions in your programs concerning early literacy.

**Research question 4.** When collaborating with others concerning early literacy instruction, what specific instructional steps are taken to ensure fluency and comprehension?

*Focus group question 4.* What are some specific changes you have made in your program as a result of collaboration with teachers and/or administration to improve students' fluency and comprehension?

## **Instructional Leadership in Mississippi Pre-K Programs**

Responses to questions one and two are so related that the researcher finds it appropriate to summarize the three themes that emerged under the umbrella of instructional leadership. Again, the purpose of questions one and two are to investigate participants' perceptions of their individual and collective roles as instructional leaders when making decisions in their pre-k programs related to early literacy, namely oral reading fluency and comprehension. The overall findings suggest a traditional top-down structure with administrators primarily serving the macro-level role and teachers serving in a more micro-level nature. The three themes of an instructional leader as foundational, facilitator, and reflective practitioner have emerged from the data and will be discussed briefly in the following paragraphs.

### **Instructional Leader as Foundational**

A recurring theme throughout the responses of the first two questions is one of being a foundational instructional leader. In essence, the foundational role is one in which each leader realizes the vital role in creating a culture of high expectation in the infant stages of a new endeavor whether it be a new pre-k program or a new class of pre-k students. Administrators tend to be more involved during the onset of new programs such as pre-k while the teachers are more in tune to the needs of their children and being sure they provide a positive, rich learning experience.

**District-level administration.** In all three programs, district-level administrators had very little to do with the programs beyond the inaugural year. All administrators at this level have a general knowledge of their pre-k programs and use that knowledge when speaking to outside sources such as parents or other organizations such as Head Start. On-going support in the form of resources or dealing with problems is certainly provided should the principal or

teachers need such support. Total trust and autonomy are given to the building-level principals as to how they think the pre-k programs should be implemented. Both groups alluded to the importance of the principal forming strong, collaborative, data-driven coalitions of stakeholders to carry out pre-k programs most effectively. Although the district personnel lead in different ways from those at the building level, the superintendents concur that instructional leadership can and often does occur at all levels of the organization.

**School-level administration.** As is the case with district-level administration, building-level administration, including assistant principals and lead teachers, have had a more direct involvement with their programs during the onset to ensure that the programs are of sound foundational quality. The role of the building-level administrator has changed from planning and implementation to support only if teachers have questions or concerns. As the superintendents provide trust, autonomy, and support to the principals, the same is provided to the teachers by all administrators. It is evident that principals have had a more direct role in planning the logistics and curriculum during the initial stages of the program and continue to do so as instructional leaders, though in a less significant, indirect manner.

**Pre-K teachers.** The foundational role of pre-k teachers in the study is one of strong, continuous support throughout the year to ensure that students are ready for future success in kindergarten and beyond. Every participant has spoken of this role with passion and enthusiasm and makes it very clear that the foundational role of being an instructional leader is not taken lightly. Interviewees strongly relayed the importance of this role as they were able to articulate in very specific, rich detail exactly how they work to strengthen this foundation as the year progresses. The foundation, in part, encompasses helping each child become more independent in the simple tasks such as buttoning their own pants or solving conflict in social situations. The

administration in these districts also spoke of the independence factor and just how important it is to overall kindergarten readiness. The pre-k teacher groups are taking the lead in these districts as the most direct instructional leader of the pre-k programs.

### **Instructional Leader as Facilitator**

Another theme that has characteristics of macro-level leadership by administration and micro-level leadership by teachers is in the realm of facilitation. Facilitation is a method whereby the leader guides others to bring about their own learning. Administrative facilitation is very different from the pre-k teachers in the study, though both have a final outcome of guiding the learning of others.

**Administrative facilitation.** Like the foundational role, the facilitative aspect for administration comes in the form of support in which resources are provided and relationships surrounding the program are cultivated. All administrators played a heavy role in facilitating the management of funds, supplies, budgets, and all other facets as each program was being developed. Principals have a more direct role than the district leadership in ensuring that pre-k teachers are planning together and following the guidelines set forth by the district in the beginning. Current involvement by administration is more in facilitating discussions of issues that may arise during program implementation and in cultivating ongoing relationships with financial partners such as Head Start or grant entities. Though heated at times, the administrators facilitate discussions with leaders of Head Start when rules tied to federal dollars do not always align with the academic goals of public school pre-k programs.

**Teacher facilitation.** As was the case with the foundational component, facilitation of learning in a direct manner is most prevalent on the part of the pre-k teacher. Each teacher in the study directly stated or implied by their responses that facilitation of learning is a daily

occurrence in the classroom. The pre-k classroom is perhaps the purest example of the teacher as facilitator in that student-centered learning with guidance by the teacher is very prevalent. The teachers clearly understand the true nature of facilitation in that they allow children to discover their own learning through socialization as teachers watch and guide them. The pre-k teachers in the study value creativity and allow students to use their curiosity and exploratory, inquisitive nature to be in charge of their own learning. Choice was another common factor in the classrooms that also puts children in charge of their own learning. All participants alluded to the idea that standardized test preparation and accountability standards begin to erode the zest and creativity for learning found in pre-k classrooms sometimes as early as kindergarten.

### **Instructional Leader as Reflective Practitioner**

The final theme that emerges in relation to general notions of instructional leadership is that of instructional leader as reflective practitioner. All of the programs in this study have been developed with very little knowledge of what constitutes an effective pre-k program because no state-funded pre-k programs exist in the state of Mississippi. All stakeholders had to rely on their own expertise in what constitutes good practice and instruction to build effective programs. Though no formal test was done in this study concerning pre-k quality, all of the programs most likely would meet or exceed the expectation of an effective program put forth by assessment standards and early childhood entities. All programs are using the Mississippi Pre-K Curriculum as a general guide though they are certainly not required to do so. The development of each program has been a trial-and-error work in progress, and the stakeholders have continued their reflective practice each year of existence. All involved have maintained an attitude of life-long learning as they continue to share what is working well and not so well in each program to help build an even stronger pre-k program.

**Administration.** Administrators give several examples of instances in which they have been reflective practitioners such as developing and enhancing the selection process, using ongoing assessment, and including pre-k teachers in school activities. Macro-level leadership is again represented in this theme as most of the administrators are more global thinkers and planners with an indirect effect on student learning.

**Pre-K teachers.** The most important role of teacher as reflective practitioners articulated by all teachers in the study is in providing high-quality curriculum for their students. Every program supplements the Mississippi Pre-K Frameworks with programs and materials that allows them to meet and exceed the expectations put forth by the state curriculum. Pre-k teachers have complete autonomy in all districts to do what they think is best for children, especially since there are no state funds tied to their decisions. There are, however, some logistical requirements with the districts that use partial federal Title I or Head Start funds. All sites imply that the state frameworks are somewhat basic, so all feel the need to supplement the frameworks and curriculum materials to improve the quality of instruction.

Another common reflective practice by the teacher is differentiation, a current hot topic in education. Differentiation in its purest form is evident in pre-k as teachers observe students and work with them on an individual and small group basis to help meet a plethora of academic, social, and emotional needs. All programs have a strong desire to not only identify students with special needs but to serve them in their least restrictive environments. The work by the pre-k teacher and Special Education Pre-K Teacher to help meet the needs of students with special needs in their least restrictive environment is a strong example of differentiation and reveals a nature of reflective practice.

## **Collaboration as a Component of Instructional Leadership**

The collaborative component of instructional leadership was the nature of questions three and four as the researcher seeks to determine how well pre-k stakeholders collaborate regarding matters of early literacy. The same macro and micro-level leadership found in responses one and two holds true for responses in questions three and four as administration collaboration is heavy during the onset of the programs but falls off sharply as time goes on. Within groups of teachers, however, collaboration is relatively strong as they work together to enhance the content and pedagogy of their respective programs. Three themes emerge in questions three and four: collaboration among administration and teachers, among pre-k teachers, and a highly disjointed collaboration with Head Start.

### **Collaboration Among Administration and Teachers**

As was the case with facilitation, collaboration between administration and pre-k teachers peaked during the initial stages of the program as they worked together to shore up funding, hire staff, and make all of the other intricate decisions required for implementation. Collaboration between superintendents and principals occurs on an as-needed basis in all programs. Several teachers spoke of heavy involvement of former administrators during the early years and much less involvement on the part of current leadership now that programs have been established. While collaboration is not as evident in the latter years of the program, all administrators were able to speak very knowledgeably about their programs even to the point of naming specific activities that occur in the classroom. The program awareness suggests that all administrators visit the classroom from time to time to stay abreast of what is occurring in the pre-k classrooms. Even still, formal collaboration among administration and teachers is minimal and in some cases non-existent.

## **Collaboration Among Pre-k Teachers**

The second theme to emerge from the data is the evidence of collaboration among pre-k teachers. Informal collaboration occurs most often among the groups and is typically brief in nature, while formal collaboration occurs once per week for 30 minutes to one hour. In addition to planning, pre-k teachers also work to improve classroom practice during these sessions by sharing ideas and revising current practice. There is a definite imbalance in collaboration types as informal collaboration among participants far outweighs the more formal type.

**Informal collaboration.** There are many forms of informal collaboration mentioned by pre-k teachers. By nature, this type of collaboration occurs virtually anywhere at anytime, especially with the common technologies such as cellular telephones and email. All participants have a genuine respect for their cohort members, and a high degree of trust in each member's expertise and knowledge is evident. Time and proximity are two main obstacles to formal collaboration and are most likely a driving force behind the large amount of informal collaboration. Although all groups participate in some informal collaboration, two groups stood out from the other as groups of professionals who value this process and truly enjoy working together. In fact, the other group shared ideas but obviously preferred to work in isolation based on their responses. As for early literacy, most components of a strong foundation were mentioned such as phonological awareness, sight words, and guided reading to name a few. Many of their ideas evolve as they pass by another's room or talk on the playground, and they quickly borrow the resources from the teacher to replicate the idea in their own classrooms.

**Formal collaboration.** The instances of formal collaboration are much less frequent, and are more regimented and planned on average once a week for 30 minutes to one hour. In fact, the two groups who work best together informally also express a strong desire to collaborate

on a more formal basis. During these formal meetings, teachers discuss in great detail what they will teach and how they will do so for the upcoming week. All three groups spoke in detail about the intense focus their programs have on early literacy, and all groups recognized those skills as the groundwork for fluency and comprehension. Specifically, attention was brought to an emphasis on phonemic awareness (letter/sound relationships) as a pre-cursor to fluency. The early preparation for reading comprehension begins with an emphasis on concepts of print such as how to hold a book, read a book, and the different components of the physical book like the front and back cover. Another heavy emphasis is on oral fluency to improve listening comprehension. Other concepts important to early literacy that emerged in discussion included the retelling of stories, acting out stories through plays and puppets, and journal writing.

### **Collaboration with Head Start**

Perhaps most unexpected of all themes is the disjointed collaborative relationship that most of the schools have with Head Start. Two schools in the study partner with Head Start, and some funding from Head Start is provided. One school only has an inter-local agreement meaning the two schools work collaboratively to serve their collective populations of students with special needs. Both schools with financial ties to Head Start expressed disdain in Head Start's ability to follow through on promises such as providing much needed supplies, and both schools are very disgruntled in the federal requirements that require an immense amount of time implementing and documenting issues that have very little to do with student learning outcomes. Administrators of the pre-k programs find the required meetings of Head Start a waste of time that are heavy on reports and light on professional development. Though there are hints of local Head Start chapters and their partner pre-k programs working to improve practice and relationships, the stigma of years of disconnect with the public schools remains. The school

without financial ties to Head Start had a much more pleasant, collaborative relationship with the organization whereby both groups come together for staff development and discussion of how to better service both preschool settings.

### **Quantitative Conclusions of the Research Study**

There are several conclusions that can be drawn from the quantitative data concerning reading comprehension and oral reading fluency of second graders who attended pre-k, Head Start, or neither. When compared to one another, all tests show a strong significant difference in mean comprehension and oral reading fluency scores.

The data reveal estimated oral reading fluency scores of 73, 84, and 59 words per minute for the No Pre-K Group, Pre-K Group, and Head Start Group respectively. The findings suggest that students who attended a public school pre-k program in this study are more fluent than those who did not by 11 words per minute and those who attended Head Start by 25 words per minute. The broad gap between the Pre-K Group and the other groups could be due to the constant attention the public school pre-k programs give to early literacy based on data gathered during the focus group interviews. As stated previously, all participants prided themselves in an intense focus on early literacy in their pre-k programs. The findings of this study complement a correlation study by Missall et al. (2007) whereby the authors studied the predictive validity of early preschool literacy skills on oral reading fluency in first grade. A significant correlation was found between preschool measures of early literacy and first grade oral reading fluency scores. This study implies that a program of high-quality can have an impact on oral reading fluency scores at least two years after pre-kindergarten. Although not a correlation study, this study complements the Missell et al. study by indicating some definite significant differences between those who attend high-quality pre-k programs in this study compared to those who do not attend

such pre-k programs.

In reading comprehension, the results of the STAR GE show a grade equivalency score of 2.5, 2.9, and 2.1 respectively for the No Pre-K Group, Pre-K Group, and Head Start Group. An important reminder when interpreting the data is that the STAR GE was administered mid-year, so a score of 2.5 represents a second grade student as being on grade level. The findings suggest that students who attended a public school pre-k program are four months above grade level (2.9), while the students who attended no pre-k are on grade level (2.5). Those who attended Head Start are four months behind grade level (2.1).

The results of this study align with several other studies that have similar characteristics such as the study by Munoz (2001) in which 4,000 students from Head Start, Even Start, and pre-k programs are compared to a group with no pre-k results. Munoz (2001) concludes that students in the state-funded pre-k programs outperformed all other students in reading. The study by Fitzpatrick (2008) measures the long-term effects of Georgia's universal pre-k program on reading ability and finds that reading scores of rural, disadvantaged students increased the most compared to other groups, and these students were the most likely to be on grade level for their age. The findings by Fitzpatrick are significant to this study considering about 50% of students in the Pre-K Group receive free/reduced lunch assistance and that this study is based on pre-k in a rural part of the United States. Finally, Yao (2003) studies the effectiveness of South Carolina's Early Childhood Development Program and finds that students who attended preschool scored higher on the first-grade Cognitive Skills Assessment Battery, second grade Metropolitan Achievement Tests - Seventh Edition, and third grade Palmetto Achievement Challenge Tests than those who did not attend preschool. The Yao study also validates the notion that students who attend a state-funded pre-k program outperform their peers on

standardized tests through the third grade.

The original intent of this study was similar to the Yao (2003) study to measure the longitudinal effects of pre-k by examining changes in data over time. Given that the programs in this study are relatively new, finding common data such as the MOY STAR GE and MOY Est. ORF across the three schools was difficult. No common assessment exists between the three schools from the beginning of the pre-k year through first grade, so only a post-test from the middle of the second grade year was used; therefore, caution should be used when relating results to the population. The other issue was that second grade was the highest grade in which all schools had participants, again due to the newness of the programs. Ideally, a third or fourth grade year would have been more desirable to gather results even further out from the initial pre-k year. Once the common assessment and grade were determined, the researcher chose the middle of the year results because they were the latest available results. Although there are multiple variables for which this study did not address, the results still yield very strong significance in favor of state-funded pre-k. The No Pre-K Group also yielded strong results, but because the group consists of both students who attended nothing and other programs such as private pre-k or daycares, caution must also be used in interpreting those results. Therefore, the quantitative data in this study suggests that state-funded pre-k through the second grade year has a significant impact on oral reading fluency and comprehension when compared to students who attended Head Start and those who attended neither program.

### **Qualitative Conclusions of the Research Study**

The first conclusion drawn from the data gathered in focus groups interviews is the notion that all stakeholders show strong instructional leadership qualities during the developmental stages of the program though not necessarily collaborative in nature. The

comprehensive research by Cogan, Anderson, and Krajewski (1993) encapsulate a variety of instructional leadership ideas present during the early stages of the pre-k programs in this study. The authors summarized the literature on instructional leadership from 1850 to 1990 and found a vast range of thought including: “(a) scientific management; (b) democratic interaction approach; (c) cooperative supervision; (d) supervision as curriculum development; (e) clinical supervision; (f) group dynamics and peer emphasis; (g) and coaching and instructional supervision” (p.7). Hints of these findings, with the exception of scientific management and clinical supervision, are evident throughout the data for this study in relation to the types of instructional leadership practices in place during the infant stages of the programs.

The second conclusion is that the strongest direct evidence of instructional leadership in the pre-k programs lies within the day-to-day work provided by the pre-k teachers, specifically in the areas of foundational leadership, facilitation of learning, and being reflective of the pre-k programs. Another important note is that teacher groups had the strongest commitment to ongoing collaboration when compared to their administrative counterparts. Blase and Blase (1998) note that an attitude of lifelong, commutative learning whereby educators coach one another and learn from one another helps to create and maintain a community of learners within schools. The pre-k teachers reflect the notion by Blase and Blase in that their attempts at collaborating with one another are helping to maintain their culture of community in their schools. The pre-k teachers in this study also reflect other methods mentioned by the authors as beneficial to collaboration included common planning times, informal collaborative arrangements such as common free time at lunch, and peer observation and reflection. Further enhancement of the culture by the principal could be accomplished by following recommendations by Blase and Blase to develop inter- and intradepartmental and grade-level

structures such as study groups for new teaching strategies, curriculum team meetings, and grade-level meetings to focus on teaching and learning. Crowther, Kaagan, Ferguson, & Haan (2002) suggest another strategy related to action research that could enhance the relationship between the pre-k teachers and administrators in this study. The authors assert that when staff members engage in action research, a focus area is selected, research questions are developed, necessary data collection is planned, and a form of data analysis is determined. Once data are collected and analyzed, the findings are described, summarized, and reported to involved parties. The aforementioned strategies would help mesh the collaborative efforts of the two parties together to more effectively impact teaching and learning.

The third conclusion related to instructional leadership in general is that all administrators in the districts reflect instructional leadership in an indirect manner as more of a support when needed by the principals. The amount of trust and autonomy given to pre-k teachers by administration is validated, in part, by Kouzes and Posner (2007). The authors state that trust is essential in maintaining an overall healthy environment whereby constituents feel satisfied, innovative, and content with their jobs. The leaders in this study do a fantastic job of trusting their constituents to get the job done which Kouzes and Posner believes can foster trust in the system by sharing information and resources and by being open and sensitive to the influence and needs of others from both outside and within, thus causing others to trust more in the leader.

Still, most pre-k teachers desire to have input from their administration in the form of collaboration for their programs, but very little collaboration is occurring. Blase and Blase (2004) determined that advanced forms of collegiality are rare even today, and leaders' attempts to work collaboratively often times become more of an inspection, oversight, and judgment. Perhaps administration finds it difficult to walk the line of evaluator and coach with the pre-k

group. There is also very little formal training in Mississippi related to pre-k education, so administration may trust the experts trained in pre-k to get the job done. Still, the teachers have a desire to be challenged by administration to help them grow and learn more about what the research says to help improve their job performance.

The teachers in this study hinted at the notion of desiring a form of coaching which was cited by both Blase and Blase and Kouzes and Posner. Coaching, according to the authors, would provide a way for the leaders of pre-k programs to empower employees by helping them enhance their own leadership abilities and by fostering the self-confidence of all. The need for coaching was implied in many of the responses as teachers desired for more involvement by administration in helping them grow as professionals while still maintaining the autonomy to make decisions about the program. In short, collaborative schools have the mentality that “together, we are better than alone” (Robbins & Alvy, p. 131).

The fourth and final conclusion of the findings is that there continues to be a highly fragmented relationship between public school pre-k programs and Head Start programs as they attempt to work together for the betterment of both programs. Schmoker (1999) denotes that isolation reflects the mentality that teachers have nothing to share and it cuts a lifeline of useful information, which is the school’s intellectual capital and most precious commodity. The environment mentioned by Schmoker is reflective of the two different missions of pre-k and Head Start. There was one group, however, that is making a concerted effort to work collaboratively to help improve the lives of all of their children. Perhaps the two groups can follow the mantra of collaboration set forth by Kouzes and Posner (2007) who describe it as a social imperative vital to creating the extraordinary among a group of people, which can be attained through creating a climate of trust and by facilitating relationships. These components

are certainly lacking between the public pre-k programs and Head Start, but it is never too late for leaders of both programs to begin cultivating such a relationship.

### **Quantitative Implications of the Research Study**

The pre-k teachers in this study are very aware of the necessary components of early literacy that impact fluency and comprehension such as sight words, phonemic awareness, and concepts of print. Everything a pre-k teacher does in early literacy helps to develop the foundation for fluency and comprehension. Typically, as a student's fluency rate increases, so does his ability to comprehend. For instance, Baker et al. (2008) studied the effect of frequent practice of oral reading fluency on reading comprehension performance on standardized tests in Oregon. The study involves 2,400 at-risk students from first through third grades, and the authors found a moderately high correlation between oral reading fluency practice and reading comprehension on the Oregon standardized state test. Wang, Porfeli, and Algozzine (2008), finds that fluency rate can be a good indicator of generalized outcome measures such as high-stakes standardized tests. The notion put forth by Wang, Porfeli, and Algozzine supports this study since STAR GE and Est. ORF are both generalized outcome measures that have yielded similar discrepancies between the three groups in this study.

Caution should be taken when interpreting the oral reading fluency and comprehension results of the No Pre-K Group, as this group could be composed of children who attended no pre-k at all, private school pre-k, or daycare programs. The researcher regrets not extracting the mean scores of students who had absolutely no preschool experience from those who attended another form of preschool in the No Pre-K Group. Still, the No Pre-K Group outperformed the Head Start Group by four months in reading comprehension and 14 words in oral reading fluency. There are several variables unaccounted for in this study because it is impossible to

control for all factors. Even still, the momentous eight month gap between the reading levels of students who attended pre-k compared to those who attended Head Start must not be ignored. The broad divide between the Pre-K Group and the other groups could be due to the constant attention the public school pre-k programs give to early literacy based on data gathered during the focus group interviews. A consistent emphasis on early literacy paves the way for students to become fluent readers who are able to comprehend what they read as indicated by the second graders in this study. One may argue that since Head Start targets minority, low-income, at-risk populations, then the results of this test certainly reveal that same trend of underperformance. It is important to note that both the Pre-K and No Pre-k Groups had at-risk student populations with over 68% of the No Pre-K Group and 50% of the Pre-K Group participating in the free/reduced lunch program. Furthermore, in today's atmosphere of accountability with effective Response to Intervention (RTI), at-risk students are provided more opportunity than ever before in the public school setting to narrow the gap in achievement. Perhaps the quantitative data along with data from the focus group interviews reveals a lack of foundation provided in Head Start that has prevented students from gaining ground with their peers even though effective RTI may be in place in all three of these districts. In all fairness, another regret of the researcher is that Head Start should have been included in the focus group interviews to compare and contrast their perception of the relationship with the public school pre-k programs.

### **Qualitative Implications of the Research Study**

The researcher found participants of the study to be able to articulate with rich, descriptive language their roles of instructional leaders in their school. All participants directly or indirectly recognized their instructional leadership roles, a role that superintendents pass along to principals and especially to teachers. All three districts had a strong sense of autonomy and

trust afforded to the principals and teachers, but unilateral collaboration was lacking. The research on instructional leadership mentioned throughout this study, however, emphasizes the notion of ongoing collaboration and teamwork among all stakeholders in the organization. In fact, it is the responsibility of administration to lead and model the process of collaboration for the organization as instructional leaders. Overall, more work is needed from all of the instructional leaders in the study to cultivate an environment of collaboration from the district office to the pre-k classroom at all three of the sites.

As for the collaboration component of instructional leadership, the three schools in this study could benefit from maintaining the same intensity level of teamwork that was evident at the beginning of the programs. The coaching and action research models mentioned previously by Blase and Blase (1998) and Kouzes and Posner (2007) could be key in guiding administrators as they cultivate an environment of collaboration in their pre-k programs. The ingredients for effective collaboration are already in place at each of the three sites, but the leadership of each district must take the reigns in having dialogue as to how they can begin to work together collectively to make even better research-based decisions about the programs. Another strength found in all sites was their combination of informal and formal collaboration, both of which are supported by research as effective methods of collaboration. Perhaps most troubling is the disdain the two public school pre-k programs reflected in their relationships to Head Start. Perhaps the other school offers clues in beginning to cultivate the relationship by offering to work together and learn from one another to improve the educational outcomes of all children.

Yao (2003) made a convincing argument that pre-k programs, such as the one in South Carolina, should increasingly be funded and available for all children. In Yao's study, students who attended preschool outscored those who did not attend preschool, even though those who

attended preschool were considered to be severely lacking many of the school readiness indicators. States wanting to initiate or enhance pre-existing programs could use the following recommendations for sustaining pre-k over time: (a) adequate infrastructure; (b) a continuum of independent research for evidence-based analysis and decision making; (c) meaningful collaboration among all early childhood entities within a community (The Southern Education Foundation, 2005). Perhaps the model set forth by The Southern Education Foundation could be a springboard to improve relations among Head Start and the public school pre-k programs in Mississippi. Since the legislature continues to pour all early childhood funds into programs such as Head Start, the collaborative effort between entities has the potential to produce the desired return on investment. Perhaps the Mississippi legislature would benefit from funding larger scale research projects such as this one to better inform their funding decisions which could lead to funding of both public school pre-k programs and Head Start.

### **Recommendations for Future Research and Practice**

This mixed methods study reveals significant discrepancies in the reading comprehension and fluency scores of second graders who attended either a public school pre-k program, Head Start, or neither program in three school districts located in Northern Mississippi. The study also highlights some definite areas in which all stakeholders could cultivate collaborative efforts as instructional leaders in their perspective pre-school programs district-wide. The researcher offers the following recommendations for future research and practice.

### **Recommendations for Future Research**

A longitudinal study of pre-k programs whereby a pre-test and post-test are given each year for three to five years would be a worthy study. The choice of assessment will be a key component in the endeavor as there are few available for pre-k that then correlates to higher

grades. Including groups such as Head Start and students who truly attended no pre-k of any kind could add strength to the longitudinal study.

In an attempt to answer the question as to why some longitudinal studies reveal a decline in the pre-k effect over time, one could do a comparison study of groups of pre-k children who are kept together in the same classrooms for several years after pre-k versus students who are assimilated into the school population once they leave pre-k. Since students are obviously well prepared for kindergarten based on the qualitative and quantitative data, one has to wonder if maybe the academic edge begins to diminish due to a re-teaching in kindergarten of everything they learned in pre-k instead of challenging those students who are already ahead.

Since parental involvement is a major factor in early academic success, it may be interesting to utilize an instrument from pre-k to at least third grade to track parent involvement of parents of pre-k students versus other parents in the district. The notion is to determine if getting parents involved earlier in their child's learning improves factors such as grades, performance on formal and informal assessments, and an overall esteem for learning. Perhaps the main goal would be to measure whether or not parents of these students are those who continue to be the most involved later in the child's schooling.

A replication study that adds an extraction of the No Pre-K Group could add strength to the overall study. The researcher recommends that students who actually had no preschool experience in the No Pre-K Group be analyzed separately from students who attended another form of preschool. The extraction combined with expanding the population to include all public school pre-k programs currently in the state of Mississippi could lead to even more conclusive results.

The Mississippi legislators should invest in further research of rural preschool programs

such as public school pre-k and Head Start. Larger scale studies may lead to more conclusive results and inform their decisions on policy and financial allotments to the different programs. This should be of particular importance as the state boasts the highest number of students in Head Start per capita and is the only southern state yet to fund any public school pre-k programs.

### **Recommendations for Practice**

Another complicated finding of the study is that much work is yet to be done in cultivating relationships between leaders of pre-k programs and Head Start. Due to the large number of Head Start programs in the state of Mississippi, it is of utmost importance that leaders of Head Start and public pre-k work more cooperatively and collaboratively in solving the multi-faceted issues involved with educating children. There needs to be further accountability to ensure that academics is top priority in both programs rather than frivolous requirements of government agencies. Unless the leadership in both programs puts differences aside and begins to collaborate more effectively, the fragmented relationships will continue to take precedence and little progress will be made for children.

School administrators must continue to exercise their roles as instructional leaders of pre-k programs by being more involved at least periodically in meeting with teachers if nothing more than to challenge them with current research or by posing questions that will cause them to reflect on current practice. Actions of this nature send the message that teachers are supported and challenged to be life-long learners. Together, administrators and teachers can continue to make research-based decisions concerning the programs while maintaining a high level of trust and autonomy within the organization.

The purpose of this mixed methods study was to investigate whether differences exist between preschool groups in three North Mississippi school districts and determine the degree to

which stakeholders in the programs possess characteristics of instructional leaders. Significant results point to the notion that state-funded pre-k is worth considering as a preschool option in Mississippi, especially in strengthening early literacy skills. Furthermore, instructional leaders from the district office to the pre-k classroom should consider furthering collaboration efforts to strengthen their already high-quality programs. Perhaps this study has opened the door for future preschool studies and dialogue concerning the preschool options provided by the state of Mississippi.

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## Appendices

Appendix A  
Sample Superintendent Letter

302 Overlook Cove  
Oxford, MS 38655  
December 7, 2009

Dear Sir:

I am a doctoral candidate in Educational Leadership at the University of Mississippi. For my dissertation, I am proposing a study to determine whether or not a significant difference exists between second grade STAR Estimated Oral Reading Fluency Scores (Est. ORF) and STAR Grade Equivalent (GE) among students who attended your pre-k program and those who did not. The sample of my study will include students who are currently in second grade and either attended your pre-k program, Head Start or no preschool at all. I will not be in contact with the students in any way. I am also requesting that you allow your administration and pre-k staff to take part in focus groups to determine the degree to which they collaborate when making decisions about early literacy education.

I am seeking approval from you to utilize the middle-of-year STAR GE and STAR Est. ORF for the second grade students. I am also requesting that each principal provide the STAR reports to me with identifiers rather than students' names to maintain confidentiality and autonomy. The students' performance results will be used in a completely anonymous, ethical manner. Finally, I am requesting that your pre-k teachers, lead teachers, and school and district administration be allowed to take part in the focus groups.

Thank you for your consideration in this matter. I look forward to hearing from you.

Sincerely,

Jeremy Stinson

Appendix B  
Informational Components of a Mixed Methods Research Study

## **Informational Components of a Mixed Methods Research Study**

**Title:** The Impact of Pre-K Programs On Student Achievement and Instructional Leadership in Rural Mississippi School Districts

### **Investigator**

Jeremy E. Stinson  
Assistant Principal  
Batesville Intermediate School District  
200 College Street  
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(662) 563-6074

### **Advisor**

RoSusan D. Bartee, Ph.D.  
Department of Leadership  
and Counselor Education  
106 Guyton Hall  
The University of Mississippi  
(662) 915-7636

### **General Overview of the Research Study**

In this mixed methods study, the researcher will determine if differences exist in oral reading fluency and reading comprehension scores between second grade students who attended pre-k, Head Start, and no pre-k. The data needed for this quantitative portion of the study will come from the STAR Reading Computer-Adaptive Reading Test, specifically the GE (grade equivalent) and the Est. ORF (estimated oral reading fluency). The qualitative portion will determine the extent to which collaboration, a characteristic of instructional leadership, occurs when making decisions related to early literacy among the pre-k programs in this study. The instrument for the qualitative portion will be the researcher as he collects data from six focus groups of participants who are directly involved in the pre-k education within the three schools.

### **Specific Needs for the Research Study**

Quantitative. The researcher is requesting that a representative from each school district provide the STAR data with student names removed to maintain confidentiality. In addition, information regarding previous pre-k experience is needed. Specifically, the researcher will need to know whether a child attended pre-k in the district, Head Start, or no pre-k (includes no pre-k at all and any other pre-k experiences apart from Head Start and your district's pre-k program).

Qualitative. The researcher is also asking that you participate in a focus group whereby teachers or administrators will be asked a series of four questions to determine the extent to which collaboration occurs within your pre-k programs concerning early literacy. The initial focus group meeting will be approximately one hour. The researcher will analyze the data into themes to gain insight into the extent to which participants collaborate together to make early literacy decisions in pre-k programs.

Each participant will have the opportunity to read transcripts of the focus groups for accuracy and inclusion in the final results.

### **Risks and Benefits**

The actual STAR data for this study are part of the annual data collection at each school represented in this study. There will be six focus groups consisting of school principals, district administration, lead teachers, and pre-k teachers. Potential risks will be minimized by the opportunity for you to read the final transcripts and to withdraw any information from the final results if necessary. The study will provide information regarding your pre-k programs, especially the longer term benefits beyond the kindergarten year in oral reading fluency and

reading comprehension. Another benefit in your participation involves learning more about the extent to which your teachers, principals, and district administration collaborate concerning issues of early literacy in your pre-k programs. No other risks are related to the processing of this data.

### **Confidentiality**

Confidentiality of each student's identity and STAR results will be held in the highest regard by this researcher by using identification numbers instead of names. The data from the focus groups will be coded in a confidential manner by excluding names of participants and any other conspicuous identifiers from the transcription. Should a participant wish to be revealed in the final written report, he must provide a written request to the researcher. All audio recordings and transcripts will be stored in a secure location accessible only to the researcher and will be erased from digital devices once the final transcripts are completed. The written reports will become part of the final dissertation.

### **Right to Withdraw**

You do not have to take part in this study. If you begin the study and decide not to finish, please contact Jeremy Stinson or Dr. RoSusan Bartee either in person, by letter to 302 Overlook Cove, Oxford, Mississippi 38655, or by telephone (662) 234-5322. Whether or not you choose to participate or to withdraw will not affect your standing with the School of Education or The University of Mississippi, and it will not cause you to lose any benefits to which you are entitled. Refusal of school personnel to participate in the focus groups will not cause them to lose any benefits of employment in their respective school districts. The researcher may terminate your participation in the study without regard to your consent and for any reason, such as protecting the integrity of the research data.

### **IRB Approval**

This study has been reviewed by the University of Mississippi's Institutional Review Board (IRB) and by the administration of The University of Mississippi School of Education. The IRB has determined that this study fulfills the human research subject protections obligations required by state and federal law and university policies. If you have questions, concerns, or reports regarding your rights as a participant of research, please contact the IRB at (662) 915-7482.

### **Statement of Consent**

I have read the above information and have been given a copy of this form. By participating in the study, I recognize that conversations during the focus groups will be audio taped. I have had an opportunity to ask questions, and I have received answers.

Appendix C  
Research and Focus Group Questions

## Research and Focus Group Questions

### **Research Question 1**

Describe instructional leadership in your school.

**Focus group question 1.** What does the term instructional leadership mean to you in terms of pre-k education?

### **Research Question 2**

What aspects of instructional leadership are the most and least beneficial? Why?

**Focus group question 2.** What are some effective and ineffective practices that each of you exhibits as instructional leaders in your pre-k programs?

### **Research Question 3**

In what ways does collaborating with others influence the decision-making process concerning early literacy instruction?

**Focus group question 3.** Describe specific instances in which you have collaborated together (teachers and/or administrators) to make decisions in your programs concerning early literacy.

### **Research Question 4**

When collaborating with others concerning early literacy instruction, what specific instructional steps are taken to ensure fluency and comprehension?

**Focus group question 4.** What are some specific changes you have made in your program as a result of collaboration with teachers and/or administration to improve students' fluency and comprehension?

## VITA

Jeremy Eugene Stinson was born in Memphis, Tennessee on August 3, 1977. He received his elementary and secondary education in the public schools of Tate County, Mississippi. After graduating as Valedictorian of Coldwater High School's Class of 1995, Stinson enrolled in Northwest Community College where he was a member of Phi Theta Kappa and received his Associate of Arts degree. He transferred to The University of Mississippi in August 1997 where he earned membership into Phi Kappa Phi. Mr. Stinson graduated Magna Cum Laude and Chancellor's Honor Roll with a Bachelor of Arts degree in elementary education in May 1999. Stinson also earned a Master of Education degree in Educational Leadership from The University of Mississippi in May 2003 and was awarded the Forrest W. Murphy Award in K-12 Leadership.

Mr. Stinson began his teaching career in August 1999 as a seventh and eighth grade integrated science teacher in the South Panola School District. He was voted by his peers as Teacher of the Year at Pope School for the 2000-2001 school year. He was promoted to assistant principal in August 2003 at Batesville Intermediate School, also in the South Panola School District. Stinson currently serves as Principal of Batesville Intermediate School and has mentored resident principals from Delta State University and The Principal Corp at The University of Mississippi.