The Impact Literacy Coaches Have On Mississippi's Lower-Performing Schools

Barbara Ann Ann Trivelli-Bowen

University of Mississippi

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THE IMPACT LITERACY COACHES HAVE ON
MISSISSIPPI’S LOWER-PERFORMING SCHOOLS

A Dissertation
Presented in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Teacher Education
The University of Mississippi

By
Barbara Trivelli-Bowen

August 2017
ABSTRACT

The purpose of this study was to explore the impact literacy coaches had on Mississippi’s lower-performing schools. To guide the study, the researcher developed four research questions and four null hypotheses. The population of this study was derived from a sample of Mississippi students in Grades K-3 who were administered the Early Literacy STAR assessment for kindergarteners and the STAR assessment for first through third-graders. This assessment was administered twice during the 2015-2016 school year. The pretest was given in August; the posttest was given in April/May. These students came from four different schools; two schools had literacy coaches and two schools did not have literacy coaches. The results demonstrated that schools that have literacy coaches had kindergarten students who demonstrated significant growth in reading when compared to their counterparts in schools that did not have literacy coaches. However, the results also suggested that schools that have literacy coaches working with second through third-grade students did not demonstrate significant growth in reading compared to their counterparts in schools that did not have literacy coaches; whereas, students’ literacy growth was actually harmed in first grade if literacy coaches were present.
DEDICATION

This dissertation is dedicated first to God. He has placed all the right people, at the right time, for the right reason to support me through this journey. Without Him, this would have been impossible. I also want to dedicate this to my daddy, John Trivelli. My father’s dream was for me to complete my doctorate, and with him guiding me from above, I did it. I will never forget when I graduated with my Bachelor’s degree, my father was beaming. In the midst of 1,000 graduates, he managed to find me walking in the graduation procession. He grabbed my hand and said, “I just want to walk with you for a little bit.” I wish I could hold his hand this one last time.
ACKNOWLEDGEMENTS

There are many people I want to acknowledge. First, my family. Without the help and support of my husband and children, this would not have been possible. There have been many times I could not be wife and mother because I was too busy being a researcher, and they never once had a negative thing to say. Next, to my mother. She has been my greatest cheerleader and told me time and time again that I could accomplish my goal. When I was at my lowest, she gave me the encouragement I needed to rise. To my sister and her family, thank you for your support and listening to my boring stories about graduate school!

My greatest supporters were Dr. Kerry Holmes and Dr. Stacy Holmes; together, they are the dream team. Dr. Kerry Holmes was my advisor and then my chair; she has been with me from the beginning. Dr. Stacy Holmes is a genius who taught me so much about statistics. They never once gave up on me and spent numerous hours guiding me through this process. I know that without them, this endeavor would not have been possible. It was a pleasure to work under Dr. Jerilou Moore. She was my first professor at UM, and the first professor to encourage me to publish. I am blessed to have started and ended this program with her. Dr. Virginia Moore was a wonderful addition to my committee. Her feedback was needed and greatly enhanced the outcome of my writing. I don’t know what I did to deserve such an amazing committee. Thank you all for your time, feedback, and encouragement.

I appreciate all the schools who gave me access to their data. Without their assistance, my research could not have taken place. I am more than grateful for my relationships with
Trenisha Weekley and Sheila Morgan. Our friendship was essential to help keep on top of deadlines, share resources, and cheer each other on. Without the two of them, I would have found it hard to move forward when I fell. Also, I cannot forget Megan Lowe, my editor.

I want to thank Mrs. Montoya from Sierra High School in Colorado Springs, CO. During my junior year in high school, I was considered an at-risk student. Instead of giving up on me, she placed me in the Area Vocational Program at Pikes Peak Community College. I enrolled in the Early Childhood Education Program, and it changed my life, and I entered the world of education. It was because of that program, I earned my Bachelor’s, my Master’s, and now my Doctorate.

Lastly, I want to thank God for putting all these people in my life. Without them, this journey would be incomplete.


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CHAPTER I

INTRODUCTION

Mississippi’s education system is in crisis and needs reform. According to the National Center for Educational Statistics (NCES) (2015), Mississippi consistently scored lower in reading than the national average for the past twelve assessments on the National Assessment of Educational Progress (NAEP). Throughout the United States, the NAEP is administered every four years to students in the fourth and eighth grade to monitor reading proficiency. Scores are divided into three achievement levels. The first level, basic, is partial mastery; the second level, proficient, is solid grade-level academic performance; and the third level is advanced, superior performance.

From 1992 to 2015, Mississippi scored lower than the rest of the nation with an average of 50% of fourth graders reading at a basic level or lower. In 1992, 25% of fourth grade students read at a basic level or lower, 14% at the proficient level, and 2% at the advanced level. In 2015, 29% read at the basic level or lower, 26% at a proficient level, and 5% at the advanced level (The Nation’s Reading Report Card, 2015). Mississippi’s educational system shows improvement, but this growth is not at an acceptable rate since Mississippi still ranks 48th in the nation, just above New Mexico, District of Columbia, California, and Alaska.

In 2013, Mississippi’s legislators adopted Senate Bill 2347, the Literacy Based Promotion Act (LBPA), to combat the state’s low reading test scores and address reading performance. The primary goal of the LBPA is to ensure all students enter the fourth grade proficient in foundational reading skills. According to research, the LBPA demonstrates that
students who are not proficient readers by the end of the third-grade have a higher risk of becoming high school dropouts or incarcerated later in life. In fact, individuals who are illiterate compose the largest population of those living in poverty, committing crimes, and depending on social assistance programs (Alliance for Excellent Education, 2013; Fielding, Kerr, & Rosier, 1998; Fiester, 2010; Snow, C. & Matthews, T., 2016). Reading proficiency provides students with a greater chance of graduating high school and becoming productive members of society.

**Impact of LBPA on Mississippi’s Third-Grade Students**

A major component of the LBPA is that students must pass the summative assessment by the end of third-grade. The highest standard score (SS) possible is 1200, and the Mississippi Department of Education (MDE) established a score of 926 for passing the summative assessment.

In an effort to improve student literacy performance on the summative assessment, MDE began to employ literacy coaches during the 2013-2014 school year to assist teachers by providing additional literacy instruction in lower-performing schools in kindergarten through third-grade. This approach initially provided assistance to 50 schools and grew to 126 schools for the 2015-2016 school year. Currently, MDE is in its fourth year of literacy services (Table 1). MDE anticipated that having well-trained literacy coaches in support schools would improve reading proficiency levels.
Table 1: Distribution of literacy coaches in Mississippi Schools (Southeast Comprehensive Center, 2016)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy Coaches</td>
<td>29</td>
<td>51</td>
<td>74</td>
</tr>
<tr>
<td>Schools with Literacy Coaches</td>
<td>50</td>
<td>87</td>
<td>126</td>
</tr>
<tr>
<td>Districts with literacy Coaches</td>
<td>26</td>
<td>46</td>
<td>65</td>
</tr>
</tbody>
</table>

Third grade students have three opportunities to pass the summative assessment before being retained (S. 2347, 2013). In April, the summative assessment is administered to all third-grade students. If they do not achieve a passing score of 926, the teachers provide research-based interventions before the students retake the test in May. At the end of May, if the students do not achieve the SS level on the summative assessment, they can attend summer school for additional literacy interventions. Some schools are unable to provide summer school interventions, but the students are still eligible to retest at the end of July with others who may have received additional summer interventions. At the end of July students who do not receive a passing score on the summative assessment must repeat third-grade.

MDE placed highly-qualified literacy coaches in lower-performing schools as a means of assisting teachers and reading interventionists to improve literacy instruction for students in Grades K-3. A school’s performance level is determined by the previous school year’s state assessment scores; a school can receive a grade of A, B, C, D, or F (MDE, 2012). A score of D or F indicates that a school is low performing and was a determining factor of which schools were assigned literacy coaches.
Statement of the Problem

The students in Mississippi are struggling to read at a proficient level (The Nation’s Reading Report Card, 2015). Three contributing causes to low reading levels may be:

1. Teacher resistance to scientific research related to changes in curriculum and pedagogy.
2. Teacher isolation: Education professionals may miss opportunities for collaboration to review and promote best practices.
3. Little research on the impact literacy coaches have on student growth. Poor or inadequate coaching of teachers does little to raise students’ reading achievement scores.

Areas of Literacy Coach Training and Assistance

The Transformational Coaching Process, a way of assisting teachers to improve their teaching capacity by feeling helped and not judged (Crane, 2012), is used to train literacy coaches on ways to most effectively work with teachers. Coaches are also trained in the five components of reading through Language Essentials for Teaching of Reading and Spelling (LETRS) professional development (Moats, Toleman, Davidson, Hennessy, Hall, Montgomery, & Ilk, 2009-2013). This training equips coaches to assist teachers.

The Art of Coaching

The primary function of literacy coaches is to help classroom teachers build pedagogy and content skills to use in the classroom. According to Crane (2012), there are two types of coaches, professional and collegial. Professional, also called authoritative coaches, work with lead teachers and ask questions to encourage them to reflect on all aspects of the literacy practices they use in the classroom. Through conversations, professional coaches discuss literacy intervention plans with teachers based on student needs. These professional coaches are deemed to be administrators by the teachers, and some teachers may feel like they are not equals.
The second type of coach is the collegial, or non-authoritative, coaches, who are not deemed administrators, but work with teachers in similar situations to the professional coach (Crane, 2012). Teachers have expressed that most of the time collegial coaches are considered as colleagues who work for literacy improvement as a team. It is vital that the teachers understand that MDE coaches are not evaluating their performance, nor are MDE coaches in a punitive position; their functions are to support and help teachers improve their practice.

MDE trains collegial coaches through the Transformational Coaching Process. There are three phases in this process: (1) foundation phase, (2) feedback loop, and (3) forward action phase. During the foundation phase, collegial coaches build relationships with teachers, establish goals, and observe, assess, and record information in an objective manner. The coaches prepare a literacy strategy and engage in conversations and provide feedback to the teachers in an effort to improve literacy instruction in the classroom. During the feedback loop, collegial coaches share perceptions of the observation in a non-judgmental way and discuss teachers’ purposes and perceptions by goal-setting. The coaches reflect, share, and explore options to enhance the outcomes of literacy instruction. In the forward action phase, collegial coaches refocus on the shared vision, suggest options, request or require changes, plan how changes are to take place, and offer appreciation.

Collegial coaches may require several changes to occur during the literacy intervention in an effort to improve learning in the classroom. Throughout this time, collegial literacy coaches use reflective communication to clarify goals and discuss how these goals must be met during the process. In addition, collegial coaches continually ask the teachers how they might support them during the forward action phase. Setting a timeline and following through are essential to the relationship to ensure their goals are reached throughout the process. Finally, collegial
coaches debrief and offer appreciation. This is a time to review how communication occurred during the session and consider how the process may be more productive in the future. Positive feedback and appreciation are powerful tools to build relationships between the collegial coaches and teachers in the future (Crane, 2012). Coaches also receive training with regard to content. MDE utilizes Language Essentials for Teachers of Reading and Spelling as its primary tool to each content. Coaches, teachers, and administrators all receive this training (Southeast Comprehensive Center & MDE, 2016).

Language Essentials for Teachers of Reading and Spelling

Language Essentials for Teachers of Reading and Spelling (LETRS) is a science-based reading research approach which focuses on explicitly teaching how to read, write, and spell. This approach integrates the five components of reading (Moats, Toleman, Davidson, Hennessy, Hall, Montgomery, & Ilk, 2009-2013; Southeast Comprehensive Center & MDE, 2016). Those components are

- phonological awareness;
- phonics;
- fluency;
- vocabulary; and
- comprehension.

**Phonological awareness.** Phonological awareness refers to an individual’s ability to identify and interact with sentence, words, syllables, onset-rime, and phonemes. It is a critical component in reading because it is a factor that can determine future reading success (Moats, 2009). Students who are able to recognize, manipulate, delete, and substitute phonemes gain the automaticity to
focus on other reading-related tasks such as comprehension, fluency, and vocabulary (Moats, 2009; Adams, 2001).

**Phonics.** Phonics refers to the sound-symbol relationship used to decode and encode words. Phonics is a necessary step in the process of word recognition which aids in comprehension (Adams, 2001; Moats & Hall, 2010). Students must be able to comprehend the meaning of both decodable and undecodable words. Phonics instruction should include the use of nonsense words to assess students’ true understanding of decoding rules and not rely on word recognition. Phonics instruction must persist until students develop fluency with all phoneme-grapheme correspondences and syllable patterns, including a strong ability to decode unfamiliar words (Moats & Hall, 2010).

**Vocabulary.** Vocabulary refers to words in oral language and writing and the ability to understand and utilize those words. Vocabulary is of extreme importance because it is a strong predictor of future reading ability (Moats, 2009). To become proficient readers, Nagy and Anderson (1984) state that students in first and second-grades must learn 800 new words per year, or two new words per day, and students in Grades 3 on up must learn 2,000-3,000 new words per year, or six to eight new words per day. It would be quite difficult for a single teacher to teach that many words in a reasonable amount of time, but Moats (2009) asserts that most vocabulary attainment is implicitly learned through exposure to rich words through read-alouds, independent reading of children’s literature, and oral conversations coupled with direct instruction on ways to utilize context clues (Hayes & Ahrens, 1988).

Because the quality of vocabulary instruction has a direct link to comprehension, students must receive explicit vocabulary instruction on selected tier II and tier III words to become proficient readers. Students need use these high frequency useful words several times in a
variety of contexts to demonstrate true understanding (Shany & Biemille, 2010; Stahl, 2005; Stahl & Fairbanks, 1986). According to Stahl and Nagy (2006), knowing the meaning of the words leads to 50% to 60% comprehension of the text. To aid with what word to teach explicitly, Beck and McKeown (1985) developed the three tiers of vocabulary. Tier I words are every day, familiar words; tier II words are the focus of instruction; and tier III words are specific to a content area, such as, math, science, and social studies. Words that fall in the tier II section are the words that must be taught explicitly because they will support comprehension of the text.

**Fluency.** Fluency is the ability to use automaticity, expression, and prosody when reading a text. Students who read slowly and laboriously struggle to develop into proficient readers (Moats & Davidson, 2009). Fluency is critical because it allows students to focus on the meaning of the words rather than the decoding process.

**Comprehension.** Comprehension, the ability to understand the text, is the essential purpose of reading. Comprehension can only be achieved when all the reading components are mastered and used together. Children in kindergarten through third-grade are focused on learning to read; starting in the fourth grade they begin to read to learn (Moats & Hennessy, 2010). Students must be acquainted with words, phrase, sentences, and inter-sentence connections, paragraph and discourse structure, metacognitive strategies, and integration with knowledge of self and the world in order to truly engage in comprehension required for learning in grades 4 and above. Once those skills are achieved, comprehension strategies can be taught.

Some teachers who embrace in the whole language philosophy are not likely to be receptive to MDE literacy coaches as they employ the skills-based instruction approach focusing on explicit reading instruction. The five components of reading are a critical step in literacy and
must be actively integrated into literacy programs. These five components represent a significant
area of focus for the MDE’s literacy coaches when guiding teachers, though there are other ways
in which the coaches can provide assistance. Please see Table 2 for information regarding the
ways in which professional and collegial literacy coaches guide teachers (SECC & MDE, 2016).

Table 2: Areas of Coaches’ Assistance

<table>
<thead>
<tr>
<th>Topic</th>
<th>Areas of Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five reading components</td>
<td>Continued clarification of the reading components&lt;br&gt;Ideas for teaching the components, e.g., guided reading</td>
</tr>
<tr>
<td>Instruction</td>
<td>Learning centers&lt;br&gt;Differentiated instruction&lt;br&gt;Strategies for highest and lowest performing students&lt;br&gt;Classroom management&lt;br&gt;Policy and procedures for literacy-based classroom writing</td>
</tr>
<tr>
<td>Data and assessments</td>
<td>Data rooms&lt;br&gt;Progress monitoring&lt;br&gt;Student needs and student groups based on data&lt;br&gt;Lessons based on data&lt;br&gt;Progress monitoring</td>
</tr>
<tr>
<td>Standards</td>
<td>Planning lessons aligned with standards</td>
</tr>
<tr>
<td>Working as a team</td>
<td>Professional learning community&lt;br&gt;Co-teaching, modeling lessons, and conferences</td>
</tr>
</tbody>
</table>

*Note.* Adapted from “Strong Readers = Strong Leaders: Mississippi Turns Literacy-Based Promotion Act for Third Graders Into Action,” by Southeast Comprehensive Center & Mississippi Department of Education, 2016.

**Purpose of the Study**

The purpose of this study was to investigate whether literacy coaches trained through MDE had an effect on kindergarten through third-grade students’ reading scores in four of Mississippi’s lower-performing schools.

**Literacy Coach Requirements in Mississippi**

A document published by SECC and MDE (2016) identifies several qualities and credentials which are needed for an individual to qualify to obtain a literacy coach position. Candidates must possess the following qualifications:
1. Master’s degree in education with three years of documented success teaching reading or 
a Bachelor’s degree with five years documented success teaching reading, with a 
minimum of three years of literacy experience at the state, district, or school level;
2. Valid Mississippi Educator Professional License;
3. Successful experience facilitating adult learning and delivering professional development 
specific to literacy instruction;
4. Experience mentoring, coaching, and providing feedback about instruction to classroom 
teachers;
5. Experience leading collaboration;
6. Experience analyzing and using student achievement data for instructional purpose; and
7. The ability to travel on a daily basis, among other skills and attributes.

Elish-Piper and L’Allier (2010; 2011) assert that the ability to build relationships is a 
critical trait. In an article by Sumner (2011) and a study by National Reading Technical 
Assistance Center (NRTAC) (2010), degree level is not suggested, but all the other qualifications 
are aligned. However, NRTAC states that the prospective coach must have an in-depth 
knowledge on the reading process and how students learn. NRTAC lists other desired skills:

1. The ability to see the positive in all opportunities;
2. Possess listening, questing, and confidentiality skills;
3. Utilize the coaching model and create/deliver professional development needs for the 
   teachers;
4. Support teachers;
5. Assist in improving instruction;
6. Appreciate, acknowledge, and promote diversity in teachers and students; and
7. The ability to have open and clear communication with everyone involved in the coaching process.

**Training Mississippi Literacy Coaches**

This study used highly-qualified literacy coaches who had been trained through the Mississippi Department of Education. Mississippi was divided into 13 regions to which literacy coaches were assigned during the 2015-2016 school year. Each region consists of five to six literacy coaches plus a regional literacy coach who oversees that particular region. Those regions are then grouped into three parts that are overseen by an assistant state literacy coordinator. The assistant state literacy coordinator answers to the K-3 state coordinator (SECC & MDE, 2016). Literacy coaches are required to attend two meetings a month: one with all the coaches in the state and one in their region.

During the state meetings, literacy coaches receive professional development. The professional development meetings focus on the five components of reading, updates on current research-based strategies and legislative information, evaluations, and any necessary information that may be needed (SECC & MDE, 2016). Regional meetings are similar to state meetings, but they are much smaller and designed around the specific needs of that region. Some regions may have issues with teacher attendance while others struggle with administrative support. Smaller meetings help coaches receive support and allow them to collaborate with other coaches regarding the needs of their schools.

The professional development that all coaches and teachers/administrators in support schools must attend is the scientifically-based reading research approach, LETRS, (Moats, Toleman, Davidson, Hennessy, Hall, Montgomery, and Ilk, 2009-2013). This training focuses on
how to teach reading, writing, and spelling explicitly and systematically. LETRS is intended to help educators:

1. Learn how students learn to read and why some struggle;
2. Know what and how to teach;
3. Understand the importance and relations of all components;
4. Learn how to interpret literacy assessment data; and
5. Learn how to teach the structure of English.

The LETRS training consists of independent and face-to-face training. Teachers must first watch several hours of training videos on foundational reading skills, writing, and spelling. After the videos are completed, participants must pass a required assessment. The next step is for participants to attend two phases of face-to-face training. This training has a duration of three days for each phase for a total of 32 contact hours. The purpose of this intensive training is to help teachers gain reading content and strategies to use in the classroom. The coaches and school administrators must also be well-versed in the reading content and the strategies to provide relevant feedback with integrity and accuracy.

**Literacy Coaches in Schools**

Literacy coaches in Mississippi are on average assigned to two schools and work at each school two to three days a week. Literacy coaches have many roles in the schools, but how much time is devoted to each role depends on the needs of the individual school as determined by a needs assessment. This needs assessment is completed at the beginning of the school year. The most important step for literacy coaches is to establish encouraging relationships with the teachers. In order for coaches to have a positive impact on the schools, literacy coaches must establish trust with the teachers.
MDE’s (2015) *MDE Literacy Coach Handbook* states that the first week should be devoted to introductions and explaining the “non-negotiables.” The non-negotiables are a set of expectations that will be addressed throughout the school year. For a complete list of non-negotiables, see Appendix A. The goal is to have the non-negotiables in place by the end of the school year, but it may take two or more years to obtain these results. Once expectations are set, the teachers are asked to complete a needs assessment and goal conference, so that coaches understand the individual needs of the teachers. Coaches then start observing the teachers to become acquainted with teaching styles, identifying positive techniques on which to build, and looking for areas that need development.

The first observation of a teacher should be a positive event where coaches intentionally look for positive traits in teachers’ instruction. Coaches are asked to leave positive notes for the teachers. For the first two weeks, it is strongly suggested that coaches focus on developing positive relationships with the teachers. During the relationship establishment time, coaches continue to go into classrooms and make observations and co-teach as needed. Coaches only work with students during the co-teaching and modeling process. The main job of literacy coaches is to help equip teachers with research-based literacy instructional strategies and give them the tools necessary to remain successful once the literacy coach is assigned to another school.

During the school year, coaches model how to conduct professional learning communities (PLC) and professional development (PD) sessions by using the gradual release of responsibility method. The topics covered in these sessions will be based on the needs of the school. Once the meetings are running smoothly, coaches begin planning the PLCs and PDs with lead teachers; they will conduct the meetings together. Once the lead teachers are feeling
confident about how PLCs and PDs are delivered, coaches then relinquish all PLC and PD duties to the lead teachers, who take over the process. The goal is to have the teachers take control of their own needs.

PLCs focus on data analysis and ways for literacy coaches and teachers to plan for student success by utilizing that data. PDs are designed around the teachers’ needs, self-assessments, and strategies coaches see with which teachers may struggle. When and how the PLCs and PD sessions are delivered will vary from school to school based on their needs. Some schools have PLCs once a week and PDs once a month. Some schools may only do PLCs once a month and PDs once every nine weeks.

Literacy coaches are required to hold a data meeting each month. The data that is collected and analyzed is derived from progress monitoring completed for that month. This data is displayed in a locked data room and displayed in a data wall format (see Figure 1). The data wall is updated once a month and contains cards with student progress monitoring information; grade equivalency reading level; and specialized services such as speech, special education, and academic or behavior interventions (see Figure 2). Literacy coaches guide the teachers through the process of how to interpret the data, graph results, and plan according to students’ individual needs. At this stage, literacy coaches can suggest strategies to use in the classroom and offer to model the strategies if needed. After any interaction literacy coaches have with teachers, such as observing, modeling, and co-teaching, coaches must debrief the teachers to review strengths, opportunities for growth, and provide suggestions.
Figure 1. An example of a data wall.

Figure 2. An example of a data card.

<table>
<thead>
<tr>
<th>____ Grade Data Card</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Name</strong></td>
</tr>
<tr>
<td>IEP</td>
</tr>
<tr>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STAR (Circle One)</th>
<th>BOY</th>
<th>MOY</th>
<th>EOY</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Lit. / Reading</td>
<td></td>
<td></td>
<td></td>
<td>BOY:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MOY:</td>
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<td></td>
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<td></td>
<td>EOY:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progress Monitor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reading Grade</th>
<th>1st 9 Weeks</th>
<th>2nd 9 Weeks</th>
<th>3rd 9 Weeks</th>
<th>4th 9 Weeks</th>
</tr>
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<tr>
<th>Days Absent</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
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</table>

*Note.* This is an authentic data wall and is blurred for privacy.

Another component of the coaching model is the learning walk (*MDE Literacy Coach Handbook*, 2015). Twice a year, fall and spring, literacy coaches organize a learning walk and invite other coaches, state directors, and administrators to walk through and observe kindergarten through third-grade classes. The goal of the learning walk is to gauge the needs of the school, open discussions with administrators, and determine growth that has taken place from fall to spring.
Method

To determine the level of impact literacy coaches had on student growth, the researcher measured students’ reading levels using the STAR assessment for students in kindergarten through third-grade. STAR assesses students on the five components of reading: phonological awareness, phonics, fluency, vocabulary, and comprehension. This assessment does not have a ceiling effect permitting students to demonstrate reading levels through the 12th grade.

The researcher analyzed the Early Literacy STAR for kindergarten and the STAR Assessment for first through third-grade students in four schools with a state rating of D or F. These ratings from each school were based on assessment and accountability data from each individual school. Of the four schools that voluntarily participated in this study, two had literacy coaches during the 2015-2016 school year; the other two did not have MDE literacy coaches. Coached schools had the state accountability rating of an F, and uncoached schools had the state accountability rating of a D. All literacy coaches received the same extensive training provided by the MDE.

The difference between the end of year (EOY) and beginning of year (BOY) scores on the Early Literacy STAR for kindergarten and the STAR Assessment for students in Grades 1-12 assesses literacy levels of those students who attend schools in Mississippi serves as the dependent variable. Literacy coaches are defined as trained professionals who work to improve achievement in reading programs at a specific school or district. Coaches support teachers with their capacity to instruct as well as the development, implementation or assessment of reading and writing programs in their assigned school/district and functions as the independent variable.
Research Questions

In this study, the following research questions were addressed:

1. Will the job-embedded professional development provided by literacy coaches’ impact students’ reading levels in kindergarten?
2. Will the job-embedded professional development provided by literacy coaches’ impact students’ reading levels in first-grade?
3. Will the job-embedded professional development provided by literacy coaches’ impact students’ reading levels in second-grade?
4. Will the job-embedded professional development provided by literacy coaches’ impact students’ reading levels in third-grade?

In this study, the following hypotheses were addressed:

Hypothesis One: There is not a significant difference in kindergarteners’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Hypothesis Two: There is not a significant difference in first-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Hypothesis Three: There is not a significant difference in second-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Hypothesis Four: There is not a significant difference in third-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Delimitations

The following may be a delimitation of this study:

1. The participants of this study are limited to K-third-grade students in four of Mississippi’s lowest performing schools.
Limitations

The following may be limitations of this study:

1. Schools with a similar population, socioeconomic status, race, and gender were used; therefore, the results may be generalizable only to Mississippi.

2. Only information from schools that agreed to participate was analyzed.

3. Students in this study are young and the ability to take a test using the technology and resistance to taking the assessment may have an impact on the scores students receive.

Definition of Terms

Early Literacy STAR Reading Assessment: An assessment given to students in kindergarten. Students completed this assessment three times a year to determine their literacy level on print concepts, phonological awareness, phonics and word recognition, fluency, and vocabulary.

Explicit instruction: Clear instruction on skills, concepts, and procedures through explanation and modeling to show students how to achieve a goal.

Gradual release of responsibility: A teaching strategy where the teacher first models a new task while the students observe. Next, the teacher and students work together on the task, and finally the students work independently. This is also known as “I do, we do, you do.”

Implicit instruction: Instruction where concepts are presented, and students self-explore the interpretation.

Job-embedded professional development: Differentiated training for teachers conducted in the classroom setting with students.

Literacy coaches: Trained professionals who work with teachers and administrators to improve achievement in reading programs at a specific school or district. They may work with
students directly by implementing interventions, support teacher learning, and/or developing, leading, or assessing the reading and writing program in their assigned school/district.

**Morphology:** The study of how words are formed; the smallest meaningful part of the word such as base/root words and affixes.

**Onset-rime:** Onset consists of the first part of the word that come before the vowel, and rime is part of the word that follows, including the vowel, and all other letters.

**Phoneme:** The smallest meaningful sound in a spoken word.

**Phonemic/phoneme awareness:** The ability to hear and manipulate the individual sounds of speech.

**Phonological awareness:** The ability to identify, analyze, and interact with sentences, words, syllables, onset-rimes, and phonemes.

**Professional development:** Training opportunities designed to improve teachers’ instructional strategies, content knowledge, and other skills.

**Professional learning communities (PLCs):** An opportunity for educators to collaborate with other educators on how to improve student performance.

**Research based (scientifically-based) reading instruction:** Rigorous and systematic procedures for reading instruction that is reliable, valid, and peer reviewed.

**Skills-based instruction:** Bottom-up practice of teaching reading; beginning with speech sounds, basic parts of words, and moving forward to reading full phrases, sentences, and passages.

**STAR Reading Assessment:** An assessment that students in first through third-grade complete three times a year to determine each individual’s literacy level.
**Support schools:** Identified schools that do not meet growth expectation and has a certain percentage of students functioning below grade level or receiving a rating of D or F as designated by the State Board of Education.

**Syllable:** Parts of a word that are organized and divided around the vowel.

**Transformation Coaching:** A way of assisting teachers improve their teaching capacity by feeling helped and not judged.

**Whole language:** The top-down practice of teaching reading; learning the whole word or phrases in meaningful context through authentic texts.

**Significance of Study**

Because the results of an illiterate society are devastating (Reutzel & Cooter, 2012; Seidenberg, 2013), it is important to make changes which lead to students reading at proficient levels. Research demonstrates a direct link between quality teachers and high achievement in students: the better the teachers, the more the students learn (Desimone, Smith, & Phillips, 2013; Kane & Staiger, 2012; Strong, 2013; Symonds, 2003). Results from this study offer information related to the use of literacy coaches which could be used in the decision-making process to assist kindergarten through third-grade students to develop reading proficiency.

**Assumptions**

The researcher analyzed information on four schools, 63 teachers, and 1,213 students in grades kindergarten through third-grade in Mississippi’s lower-performing schools with similar populations, socioeconomic status, races, and genders. Only information from schools that agreed to participate was analyzed which may affect the generalizability of the results. Students in this study are young which may influence their ability to take the test using technology as well
as their willingness to take the assessment which in turn could impact the accuracy of their scores.

Summary

Mississippi’s schools need reform. The state senate developed the Literacy Based Promotion Act as a way to give nonproficient readers an opportunity to become proficient. Part of this act is providing assistance to struggling schools by placing MDE highly-trained literacy coaches in those schools to promote research-based teaching strategies. These third-grade students were in second-grade at the time the LBPA went into effect and may have benefited from literacy coaches in their schools. This study investigated whether having literacy coaches in schools increase teacher capacity and student literacy growth. If data shows there was a positive impact on students’ literacy growth levels, more schools may employ literacy coaches, teacher capacity may increase, and students may show growth in their literacy levels.

Organization of Study

This study is organized into five chapters. Chapter I includes the introduction, statement of the problem, purpose of the study, research questions, delimitations and limitations, definition of the terms, significance of the study, and assumptions. Chapter II contains the literature review. Chapter III reviews the methodology which includes participants, procedures, and data analysis. Chapter IV presents the results and data analysis. Finally, Chapter V discusses the summary, purpose, results, implications, and recommendations.
CHAPTER II

REVIEW OF LITERATURE

The purpose of the study was to examine the impact literacy coaching had in Mississippi’s lower-performing schools by (1) promoting teachers’ content and pedagogy, (2) examining students’ reading scores, and (3) investigating whether literacy coaches are making a difference in K-third-grade students’ reading levels.

Literacy coaching offers many benefits (Biancarosa, Bryk, & Dexter, 2010; Symonds, 2003) and may facilitate the collaboration process among administrators, principals, coaches, and teachers (Biancarosa, Bryk, & Dexter, 2010; Ronfeldt, Farmer, McQueen, & Grissom, 2015; Symonds, 2003).

Many studies have investigated what constitutes a quality literacy coach (Crane, 2012; Moss, Fountain, Boulay, Horst, Rodger, & Brown-Lyons, 2008; National Reading Technical Assistance Center [NRTAC], 2010; Riddle-Buly, Coskie Robinson, & Egawa, 2006; Steckel, 2009; Symonds, 2003; Wren & Reed, 2005). Many studies have demonstrated that literacy coaches improve teacher instruction (Collet, 2012; Howe & Barry, 2014; Scott, Cortina, & Carlisle, 2012). However, there is less research on the impact literacy coaches have had on student achievement. Elish-Piper and L’Allier (2010) conducted a significant study on this topic. They investigated whether there was a link between literacy coaching and students’ reading achievement but the assessment they used had a ceiling effect. This assessment could not measure past the first-grade level. Some students could have theoretically shown more growth if the assessment had not had a ceiling effect.
Theoretical Perspective on Literacy Instruction

Part of the research on the effects of literacy coaching on student achievement is based on Lev Vygotsky’s Theory of Constructivism. To understand the genesis of Vygotsky’s socio-cultural theories, it is important to understand the time period in which he lived. Lev Vygotsky developed his theories on teaching and learning while Joseph Stalin, the dictator of the Communist Party in the Soviet Union, was in control (Kozulin, 1986). Stalin was adamant about eliminating mutinous conversations, and Vygotsky, a psychologist, feared persecution if he did not follow the party line. This fact serves as a critical context for Vygotsky’s theories. Under Stalin’s control, Soviet scientists, including psychologists, could only promote theories that were consistent with Stalin’s interpretation of the teachings of Marx, Engels, and Lenin; therefore, researchers question if he truly believed in his theories and was in too much fear for his life to truly voice his thoughts. Vygotsky died in 1934 but his students continued his research on cognitive processes. In 1936 Vygotsky’s work was banned by Stalin; his work resurfaced in the 1960s and is now a major component in the theory of teaching and learning.

Three concepts from Vygotsky’s theory of teaching and learning are embedded in the literacy coach training and can be applied to instructing children as well as adults (Dugan, 2010). The concepts are

1. social interaction: collaboration among stakeholders,

2. more knowledgeable other (MKO): association of the learner with a more competent individual, and

3. Zone of Proximal Development (ZPD): an array of skills and concepts to be learned by children in order to advance to the next level of mental or physical development.
The social interaction concept focuses on learning as a social activity when given the opportunity to work collaboratively. A key role of literacy coaches is to bring faculty together and to learn and provide opportunities to learn from each other. Collaboration is connected to the MKO. When coaches enter schools, they are the MKO from whom the teachers will learn. During this time via collaboration the literacy coaches assist teachers with their skills. Literacy coaches must be knowledgeable of the children’s ZPD for reading and able to inform teachers of research-based techniques that help the children develop the level of thinking necessary to become competent readers.

Vygotsky’s theory of social interactions followed the ideas of Pierre Janet, a French psychologist, philosopher, and psychotherapist, who believed that learning was first accomplished on a social level and then by internalization (Kozulin, 1986). Vygotsky embedded both direct instruction (the MKO) and constructivism derived from his concept of social interaction. Both direct instruction and constructivism can move students to the next level of development, the ZPD.

To implement the three concepts from Vygotsky theories of teaching and learning, literacy coaches and teachers must develop a foundation of trust. Crane (2012) describes the development of that relationship, with coaches forming their decisions based on data (not personal interest), using performance as a standard, and focusing on the work at hand. Coaching is a process that takes time; it cannot be rushed. A great deal of dialogue, heart, humility, balance, and self-responsibility encompass the coaching model. Furthermore, coaches must collaborate in a non-threatening way (Wren & Reed, 2005). Riddle-Buly et al. (2006) further explained that when hiring literacy coaches, the most important element needed is to make sure the coaches are not in an evaluative role but a collegial one with common goals and trust in order
for the coaching program to succeed. Together, these concepts demonstrate that learning is best supported by the active collaborative activity embraced by literacy coaches.

**Coaching Resistance: A Historical Perspective**

Controversy regarding whether reading should be taught with whole language versus skills-based instruction led to the reading wars. The debate around these approaches have led many K-third-grade teachers to develop their own varied beliefs and refusal to accept the results of scientific evidence regarding the best way to teach reading.

Teachers without background in phonemic awareness and skills-based instruction present a challenge for literacy coaches. Teachers may resist skills-based instruction because they believe there are too many exceptions to decoding words, and teachers may find that explicit instruction is too complex (Seidenberg, 2013).

**Whole Language Philosophy**

Since the 1800s the classroom reading pedagogy pendulum has been swinging between whole language and skills-based instruction. During his time as the secretary of the Massachusetts Board of Education, Horace Mann introduced the idea that teaching students to read letter by letter was impeding their ability to learn to read. In 1844, Mann proposed that looking at the whole word was more beneficial to the learning process; from this idea, the concept of whole language philosophy instruction developed. The whole language philosophy approach to reading includes the use of authentic texts and a theory that learning to read is just as natural as learning to speak (Goodman, 1979). Goodman, a whole language activist, reintroduced this top-down practice, publishing a report that asserted that syntax and semantics were equally as important as grapho-phonics cues (Goodman, 1969). Goodman’s report encouraged theorist Frank Smith to examine the whole language philosophy process more
closely. Smith (1975) emphasized that like speaking, reading is natural. Smith (1975) further asserted that teaching the tedious rules of phonics to young readers was too much for them. Smith was known for encouraging teachers to stop skills-based instruction and focus on whole language well into the 1990s.

The whole language philosophy came into question in 1987 when California’s state superintendent, William Honig, terminated the use of phonics teaching for teaching reading and enforced the whole language philosophy (Kim, 2008). This proved to be disastrous; by 1994 California and Louisiana were tied for last place based on the U.S. Department of Education’s Reading Report Card, with the whole language philosophy being blamed (Kim, 2008). Even with the studies showing the negative impact of the whole language philosophy, there are researchers that stand behind whole language. If future teachers were trained in the whole language top-down practice during that time, they may be resistant to and be confused by the explicit phonics bottom-up practice.

**Skills-Based Instruction**

Rudolph Flesch (1955) popularized skills-based instruction in contrast to Mann’s whole word philosophy. Felsch’s bottom-up approach was well received by many politicians and citizens. After Flesch published a book on this approach, Jeanne Chall (1967) investigated whether teaching meaning is more productive than teaching code or vice versa. A survey of 30 teachers revealed that 60% of participants preferred systematic phonics and 30% preferred a combination of intrinsic phonics and the look-say approach.

West and Stanovich (1978) conducted experiments to determine whether proficient readers do in fact rely on context clues more than good readers. The authors found that it was the poor readers who relied on context clues. Studies on eye movement (Rayner, K., Well, A. D.,
Pollatsek, A., & Bertera, J. H., (1982) demonstrated that students do not look at words as a whole when reading, but instead look at each letter, and Samuels, Rasinski, and Hiebert (2014) found similar results. When students practice and master word recognition, they are looking at several components within a word; such as, individual letters, digraphs, whole words, and the length and shape of the word. Since the eye is focusing on individual letters and digraphs, skills-based decoding instruction is needed in the reading curriculum.

In support of the earlier phonics movement, Richard Venezsky (1977) asserted that reading instruction should be based on research, which is precisely what bottom-up instruction has become. In *Becoming a Nation of Readers*, the National Institute of Education asserted that early language, skills-based instruction, and opportunities to read are important for emerging readers (Anderson, 1985). This publication was intended to put the whole language versus phonics debate to rest. In 1997, the National Reading Panel (NRP) was organized. In 2000, the NRP released its 464-page report in support of skills-based instruction.

The reading wars has not come to an end. There are several proponents who are strong advocates for the whole language philosophy and others who are strong advocates for skills-based instruction. Lyle (2014) states that using phonics focuses students’ attention on decoding and not on the meaning of words. He goes on to say that the use of pseudo words to assess students’ ability to decode words and not teach students how to use context clues is a flawed strategy in skills-based instruction. Davis (2013) believes that by placing the students’ focus on the word meaning (and not decoding), will lead to better readers. Willingham (2015) further asserts that students who have a difficult time reading do so because they cannot hear the different sounds in speech, and those students who do read well do so because they were able to
teach themselves to read can hear the sounds easily; therefore, skills-based instruction is not necessary.

On the other side of the argument, Gray (2013) explains why whole language may work for some students, but does not work for most. Students who learn whole language do so in a natural, literate environment, such as a home with many books and adults who read. However, once taken out of this natural environment and placed in a school setting, whole language is not effective. To become an effective reader in school, the rules must be mastered. To sum up Gray’s argument, most experts who have delved deep into the research believe that skill-based instruction has won the war. Grant’s (2014) longitudinal study demonstrated that students who received skills-based instruction were between fourteen and twenty-eight months ahead of their peers, and Allor, Mathes, Roberts, Cheatham, and Otaiba’s (2014) study demonstrated that skills-based instruction works, especially for struggling students. Marilyn Adams (2014) asserts that for young children to even begin to learn to read, it is vital for those children to first recognize and write the letters before work on phonemic awareness or phonics instruction is introduced. As Davis says, “…those occupying different positions in the debate are able endlessly to research and to trade academic papers, with no resolution between them in sight.” (p. 13)

**Research-Based Instruction from the NRP**

The NRP found that the best approach to teaching reading is for teachers to teach explicitly the reading foundation skills that include phonemic awareness, phonics, fluency, guided oral reading, vocabulary, and comprehension. However, they did not make suggestions on how to implement the components. Even though the NRP’s findings suggest that the best approach to teaching children to read is to use the skills-based approach, teachers who were
trained using the whole language philosophy may find it difficult to relearn new teaching strategies, making a literacy coach’s job more difficult.

**Research-Based Practices Used by MDE Literacy Coaches**

According to the SECC and MDE (2016), researchers recognized that teachers in Mississippi needed training on the five components of reading. MDE hired Voyager Sopris to provide professional development using LETRS to assure that coaches would be able to train teachers using current scientific research based practices. After completing LETRS, literacy coaches and trained teachers should be better equipped to identify problem areas and assist students in improving their reading skills. This training is intended to “connect training content to classroom instruction, relate scientific research and theory to classroom instruction, discuss research through interactive activities and exercises, and practice the application of best practices to instruction” (SECC & MDE, 2016, p. 9).

Research has demonstrated that phonological awareness and phonics are significant predictors of reading achievement (Lam & McMaster, 2014; Shanahan, 2017). Snow (2016) notes that once students master phonological awareness and phonics they are able to read at a second or third-grade level. However, to get beyond that level the students need vocabulary and fluency instruction, which are strong predictors of reading comprehension. Students must have the ability to recognize words quickly, know the meanings of words they decode, and understand how those words are used in the text (Lam & McMaster, 2014).

**Conceptualizations of a Literacy Coach**

Literacy coaches, as defined by the International Literacy Association (2012), are professionals who work with other educators to improve achievement in reading programs at a specific school or district. Literacy coaches may work with students directly by implementing
interventions, supporting teacher learning, and/or developing lessons, leading, or assessing the reading and writing program of their assigned school/district. Steckel (2009) defines a literacy coach as someone with expertise in literacy that works with the teachers, but not necessarily the students. Crane (2012) defines coaching as “the art of assisting people [to] enhance their effectiveness in a way people feel helped” (p. 31). Symonds (2003) states that literacy coaches are people who specialize in content and instructional areas.

There are clearly many differing definitions of literacy coaching, but they have some similarities. First, successful literacy coaches build trusting relationships with the teachers with whom they work. Second, they observe, co-teach, and model literacy lessons. This activity is followed up with delivering professional development. Lastly, they analyze data with teachers to best understand the students’ needs. All these definitions align with what literacy coaches do in Mississippi with the exception of working with children. The only time MDE literacy coaches work directly with students is during co-teaching or lesson modeling (see Appendix B for “A Day in the Life of a Literacy Coach”).

Role of Literacy Coaching

The Reading First Implementation Evaluation Final Report states that literacy coaches’ roles include several dimensions, namely supporting teachers, administrative, school, and instructional activities (Moss et al., 2008). Coaches ranked the following as their most important tasks: coaching (modeling, co-teaching, observation), providing professional development, evaluating assessment results, and improving reading instructional design (Moss et al., 2008). As Riddle-Buly et al. (2006) further explain, literacy coaching is not a new name for reading teachers; it is a position that has been developed to work with teachers to develop better literacy teaching methods through conversations arising from observations, modeling, and data analysis.
One specific job of literacy coaches in the school setting is to develop and promote a collaborative approach to education between literacy coaches and teachers. These coaches may be able to encourage teachers to take risks that they would otherwise not take. The NRTAC (2010) study has listed the roles of literacy coaches (Table 3):

Table 3: Roles of Literacy Coaches

<table>
<thead>
<tr>
<th>Task</th>
<th>Rank Order of Percentage of coaches rating task as central to their role.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher support activities</strong></td>
<td></td>
</tr>
<tr>
<td>Coaches staff on a range of topics</td>
<td>95%</td>
</tr>
<tr>
<td>Providing training and professional development reading materials,</td>
<td>94%</td>
</tr>
<tr>
<td>strategies, and assessments</td>
<td></td>
</tr>
<tr>
<td>Organize professional development for K-3 teachers</td>
<td>86%</td>
</tr>
<tr>
<td>Facilitate grade level meetings</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Administrative and school support activities</strong></td>
<td></td>
</tr>
<tr>
<td>Participate in professional development provided by the district,</td>
<td>93%</td>
</tr>
<tr>
<td>state, or other consultants</td>
<td></td>
</tr>
<tr>
<td>Compile reading assessment data</td>
<td>92%</td>
</tr>
<tr>
<td>Administer and coordinate reading assessments</td>
<td>88%</td>
</tr>
<tr>
<td>Participate in school leadership team meetings</td>
<td>83%</td>
</tr>
<tr>
<td>Order and manage reading instruction materials</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Activities that support teachers’ instruction</strong></td>
<td></td>
</tr>
<tr>
<td>Help teachers in interpreting assessment results</td>
<td>97%</td>
</tr>
<tr>
<td>Help teachers design strategies for struggling readers</td>
<td>95%</td>
</tr>
<tr>
<td>Help teachers monitor the effectiveness of strategies for struggling reading</td>
<td>93%</td>
</tr>
<tr>
<td>Observe and provide feedback to teachers</td>
<td>92%</td>
</tr>
<tr>
<td>Assist teachers in using the core reading program</td>
<td>89%</td>
</tr>
<tr>
<td>Assist teachers in forming instructional reading group</td>
<td>88%</td>
</tr>
<tr>
<td>Give demonstration lesson with core and supplemental materials</td>
<td>79%</td>
</tr>
<tr>
<td>Plan reading instruction with teachers</td>
<td>77%</td>
</tr>
<tr>
<td>Give demonstrations on assessments</td>
<td>72%</td>
</tr>
</tbody>
</table>

*Note. Adapted from “A study of Effectiveness of K-3 Literacy Coaches” by National Reading Technical Assistance Center study, 2010, p. 15.*

The Goal of Coaching

Poglinco, Bach, Hovde, Rosenblum, Saunders, and Supovitz (2003), cited in the NRTAC (2010) study, assert that literacy coaches provide support on an ongoing basis and should be non-
evaluative and non-threatening; the goal of coaching is to support teachers. According to Wren and Reed (2005), literacy coaches are a resource. The majority of the coaches’ time should be spent working with the teachers in some capacity and only teaching students during modeling sessions.

Crane (2012) describes the coaching process as employing many elements. First, the coaches have to put in the time to get to know the teachers and understand their roles, goals, and challenges. Next, the coaches must set expectations and work with the teachers by proving purposeful and timely feedback. The coaches must also ask leading questions to promote thoughtful and reflective thinking, leaving teachers feeling empowered. Coaches are to gradually release this process to the teachers in order to facilitate the teachers’ self-sufficiency. In a personal communication with the State Literacy Director for K-12th grade at MDE, Dr. Kymyona Burk (2015), stated, “The goal of a literacy coach is to work themselves out of a job.” For effective coaching to take place, the coaches should not be placed in a pseudo-administrative position because it may undermine the coach-teacher relationship (Symonds, 2003). Symonds (2003) further articulates that coaches should not be placed in a position to evaluate teachers; the goal of literacy coaches is to support teachers in their instructional practices.

Providing and Receiving Professional Development

An important aspect to coaching is providing professional development with regular follow-up sessions. According to Crane (2012), if professional development is provided without follow-up, change may be brief, and old habits may resurface. Job-embedded professional growth with follow-up sessions fosters the best chance of fully implementing a change. Coaches who reinforce what is learned in the professional development session over time contribute to increasing teacher knowledge and instructional transfer into the classroom that leads to durable
change (Symonds, 2003). In traditional professional development sessions, teachers mostly learn what to teach. Literacy coaches also provide methods of how to teach concepts they have learned. Literacy coaches not only deliver professional development, they must also receive professional development so they can keep abreast of current educational trends, best practices, and research based instructional techniques (Riddle-Buly et al., 2006; Wren & Reed, 2005). Coaches continually need support from other coaches with more experience as well.

**Improving Reading Instructional Design**

The impact of literacy coaching on student achievement has not been investigated as much as the impact literacy coaching has had on teachers’ instructional improvement, but it is becoming an area of interest. Elish-Piper and L’Allier (2011) conducted a study in which they examined whether the amount of time literacy coaches spent in a class or whether specific activities that literacy coaches conducted predicted reading gains. They examined ten literacy coaches, having the coaches record the activities they conducted over a five-month period. Specifically, the authors focused on three categories: type, context, and content of coaching activities. Literacy coaches recorded their activities in a log that the researchers designed and trained the coaches to use. Before the initial study began, five literacy coaches used the logs for five months and made changes to the logs as needed. Once the logs were deemed valid, literacy coaches were trained for three weeks on how to use them. Literacy coaches used the logs and turned them in weekly for review by the researchers (Elish-Piper & L’Allier, 2011).

In Elish-Piper and L’Allier’s study, students were pre-tested and post-tested on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). DIBELS assesses students two times a year in kindergarten through sixth grade with regard to phonological awareness, alphabetic principle and phonics, fluency, oral language, vocabulary, and comprehension (Center
on Teaching and Learning, 2017). The researchers used those scores to determine which activity literacy coaches introduced that could cause the greatest impact on reading gains. This study showed that observing, modeling lessons, conferencing, administering assessment, and analyzing data were had the most significant impacts on students’ reading achievement. Elish-Piper and L’Allier (2011) concluded that at least one-third of the coaches’ time should be spent working with the teachers.

Steckel (2009) examined how literacy coaches can impact urban schools. The questions she wanted to answer were (1) what makes coaches effective/ineffective, (2) what did coaches do to make schools succeed, and (3) what did the schools and administration have to do? Using a series of interviews with coaches, teachers, and administrators, Steckel (2009) found that for coaches to be successful and have an impact on students’ reading levels, the coaches had to be leaders; give the teachers a feeling of empowerment; teach and model lessons on foundational skills as needed; provide time, space, and resources; create a positive school culture; and foster collaboration between teachers.

**Transformational Coaching Process**

The transformational coaching model is one way to minimize teachers’ resistance to the advice of literacy coaches (Crane, 2012). This process strongly emphasizes collaboration, an approach supported by the theories of Vygotsky. Vygotsky (2004) posited that people learn better if they are actively involved in a collaborative learning process. The goal of the Mississippi literacy coaching model is to promote collaboration between coaches and educators that supports increased student reading proficiency. Therefore, the first step of any collaborative-based coaching program is the establishment of trust between coaches and administrators. Collaboration is built into the MDE coaching model in several forms, including the coaches
offering professional development that will improve teaching practices, co-teaching, modeling research-based practices, and debriefing sessions with teachers about their instructional practices on an ongoing basis. According to Crane (2012) the seven key elements which comprise the Transformational Coaching Process are

1. Invest time to get to know people as people;
2. Understand people’s roles, goals, and challenges on the job to be helpful;
3. Set clear context and GRRATE (Goals, Roles, Resources, Accountabilities, Timeframe, and Empowerment) expectations;
4. Observe people’s work closely enough to have relevant and substantive feedback;
5. Provide timely, candid and specific feedback regarding what you observe and interpret as the impact on yourself, other people, and performance;
6. Stimulate learning, growth, and performance improvement by asking effective learning questions; offer suggestions as necessary; and
7. Leave people feeling supported and empowered to contribute at increasingly higher levels. (p. 43)

**Impact of Literacy Coaching on Student Achievement**

The researcher reviewed the current research on the impact of literacy coaching on students’ reading achievement published in peer-reviewed journals and dissertations. The criteria utilized to identify relevant studies include schools with literacy coaches who worked with kindergarten through third-grade teachers using job-embedded professional development to help improve teaching strategies that can improve students’ reading growth. Since this is a fairly new topic for research and there are few studies, the researcher did not apply a date parameter. The researcher looked at 21 studies, but narrowed them down to 11 studies which fit
aforementioned criteria. Of the 10 studies that were excluded, two were on coaching principals, two were not within the grade band kindergarten through third-grade, two did not have a literacy coach involved, two had no research design on student achievement, one was based on professional development on how to use data, and one had no job-embedded professional development from a coach.

In the chosen studies, six were quantitative; three were qualitative; and two used mixed methods. These studies looked at a range of 98 to 8,576 students, five to 17,000 teachers, and eight to 15 coaches. All studies demonstrated that having literacy coaches aided in students’ literacy growth.

The National Reading Technical Assistance Center (2010) conducted a study to examine research that showed the effectiveness of literacy coaches. This study showed that teachers who were coached and the students’ achievement gains had a positive and significant relationship. Similarly, Sumner (2011) looked at instructional coaching in North Carolina high schools. Overall, student achievement was related to the amount of time coaches spent with the administrators and the amount of time coaches spent working directly with students.

Biancarosa, Bryk, and Dexter (2010) investigated the literacy collaborative (LC), a program where coaches were placed in schools to assist with improving literacy levels for children in kindergarten through second-grade. During the second year of this study, there was a 16% gain in literacy levels; during the third year, there was a 28% gain; and during the final year, there was a 32% gain. This study also showed that the gains were retained even after the summer months. Thus, this study’s findings suggest that coaches can positively affect students’ learning, which the researchers attribute to the level of training these coaches possessed.
Elish-Piper and L'Allier (2010) conducted a study to look at the activities literacy coaches perform in a class and determine what, if any, relationships exist between literacy coaches and reading achievement. On average, students made significant gains, but it appeared that several factors were involved. It was found that coaches needed to spend the majority of their time working directly with the teachers. The coaches who spent more time with their teachers had students who showed the greatest gains. In another study conducted by Elish-Piper and L’Allier (2011), the authors looked at the relationship between literacy coaches and reading gains. On average, students in grades kindergarten through third-grade showed statistically significant improvements on their reading scores. The researchers asserted that the use of literacy coaches in delivering professional development was effective in improving students’ reading gains.

Matsumura, Garnier, Junker, Resnick, and Bickel (2009) sought to investigate the effects of a well-defined instructional coaching program on reading comprehension instruction and students’ reading achievement. The authors examined Content-Focused Coaching (CFC), a model for the ways in which coaches work in schools. Teachers in CFC schools showed improvement in their teaching practices. There was not a difference in students’ reading achievement as a whole. However, English-language learner (ELL) students had significantly higher scores. In follow-up research to the previous study Matsumura et al (2010) investigated the next two years of that three-year investigation. The researchers found that there was evidence that an established coaching program can increase reading achievement for ELL students; however, the operative word is established. The second cohort had higher gains during their first year than the first cohort. When the second cohort started, the coaching model was in place and therefore more effective.
Young (2008) investigated teachers’ perceptions of instructional coaching and its impact on students’ achievement. This was a quantitative study in which 28 teachers from three Title 1 schools with over 85% free or reduced lunch and a 92% minority student population participated by completing a questionnaire. Teacher efficacy, coaching individual teachers and groups, strategies, and relationships between the teacher and coach were the dependent variables. The independent variable was student achievement. There was a statistically significant relationship between teachers receiving professional development coaching and student achievement. There was a significant statistical difference between group professional development, individualized professional development, and student achievement. There was also a statistically significant relationship between teacher efficacy, individualized professional development, and student achievement. There was no statistically significant relationship between teachers' perceptions of group professional development and students’ achievement, between group professional development, teacher efficacy and students’ achievement, and individualized professional development, teacher demographics and students’ achievement. The conclusion was that there was a statistical significant relationship when there are coaches assisting teachers and delivering group and individual professional development.

Reddell (2004) looked at significantly at-risk schools in Lewisville, TX, and wanted to know if a team of two or three academic coaches embedded as on-site staff developers could assist in raising student achievement in one year. The Accelerated Instructional Services (AIS) was developed and consisted of a team that included eight instructional specialists, a secretary, and an executive director to provide coaching for teachers to improve teaching practices and student learning in three different schools. The teams would look at data, provide staff development, model lessons, debrief, and aid teachers in the reflection process. They also
developed tutoring groups for students with the most needs. Students showed growth; school one showed significant growth and ranked in the first quartile in both reading and math – the only school out of 52 schools in that district. School two moved from level “acceptable” to “recognized,” while school three’s reading scores went from 78% passing to 98% passing.

Swartz (2005) wanted to see whether professional development on the five reading components from literacy coaches increased student achievement. Results showed that teachers who participated in professional development training showed more growth than that of non-participatory teachers. Schools that had a literacy coordinator (literacy coach) exceeded their growth goal. Overall, schools that had the training showed significant increases in the five components.

Yoon, Duncan, Lee, Scarloss, and Shapley (2007) asked in their study: “How does teacher professional development affect students?” The authors studied the literature to answer this question. Yoon et al. indicated that studies showed that teachers who had over 14 hours of professional development had students who showed significant gains in their achievement. Teachers who had only five to fourteen hours had students who did not show significant gains achievement. Most studies examined by the authors were workshops or summer institutes lead by teachers. Only one study did not have follow-up support. For a complete summary of the studies, see Table 4.
Table 4: Study Characteristics

<table>
<thead>
<tr>
<th>Study</th>
<th>Number of Participants</th>
<th>Number of Studies researched</th>
<th>Type of study completed</th>
<th>Question asked</th>
<th>Answer to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biancarosa, G., Bryk, A.S., &amp; Dexter, E. R. (2010)</td>
<td>27,427 observations, 8,576 students in 17 schools throughout 8 states. Overall, 287 teachers were involved in this research.</td>
<td>N/A</td>
<td>Quantitative</td>
<td>Can the literacy collaborative effect increase student learning?</td>
<td>Their study suggests that a coach can affect student learning. Achievement increased over the years- 16% growth for year 1, 28% growth for year 2, and 32% growth for year 3.</td>
</tr>
<tr>
<td>Elish-Piper, L., &amp; L’Allier, S. K. (2011)</td>
<td>14 Literacy coaches, 121 kindergarten-3rd grade teachers and 3,029 students</td>
<td>N/A</td>
<td>Quantitative</td>
<td>Will having a literacy coach predict reading gains?</td>
<td>Students at each grade level showed statistical improvements in their reading scores.</td>
</tr>
<tr>
<td>Elish-Piper, L., &amp; L’Allier, S. K. (2010)</td>
<td>5 literacy coaches, 26 K- 1st grade teachers, 421 kindergarten students that attended a half day program, and 278 first grade students.</td>
<td>N/A</td>
<td>Mixed Methods</td>
<td>What is the relationship between literacy coaching and student reading achievement in grades K–1?</td>
<td>Students made significant gains, but the coaches who spent more time with their teachers had students that show the greatest gains.</td>
</tr>
<tr>
<td>Authors</td>
<td>Participants</td>
<td>Method</td>
<td>Research Question</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>--------</td>
<td>-------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Matsumura, L. C., Garnier, H. E., Correnti, R., Junker, B., &amp; Bickel, D. D. (2010)</td>
<td>Participants were from 29 elementary schools in Texas; 15 were the treatment schools and 14 were the control schools. There were 15 coaches, 171 teachers (73 were placed in cohort 2), and there were 1,269 students</td>
<td>N/A</td>
<td>Did students in the CFC program improve their reading comprehension skills? (follow-up study)</td>
<td>The researchers found that there was evidence that an established coaching program can increase reading achievement for ELL students.</td>
<td></td>
</tr>
<tr>
<td>Matsumura, L. C., Garnier, H., Junker, B., Resnick, L., &amp; Bickel, D. D. (2009)</td>
<td>98 teachers</td>
<td>N/A</td>
<td>What is the effect of a well-defined instructional coaching program on reading comprehension instruction and students’ reading achievement?</td>
<td>ELL students had significantly higher scores.</td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Methodology</td>
<td>Sample Size</td>
<td>Research Question</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>National Reading Technical Assistance Center. (2010)</td>
<td>Qualitative</td>
<td>15 Reading First reports from 2007</td>
<td>Is there any evidence that the presence of coaches increases student achievement?</td>
<td>There was a positive significant relationship between having literacy coaches and student achievement.</td>
<td></td>
</tr>
<tr>
<td>Reddell, P. (2004)</td>
<td>Eight instructional specialists, a secretary, and an executive director to provide coaching for teachers</td>
<td>N/A</td>
<td>Does having a team of two or three academic coaches embedded as on-site staff developers could assist in raising student achievement in one year.</td>
<td>Students showed growth.</td>
<td></td>
</tr>
<tr>
<td>Sumner, K. Y. (2011)</td>
<td>115 school districts</td>
<td>N/A</td>
<td>What is the relationship between high school instructional coaching implementation and student achievement?</td>
<td>The only item that showed a significant difference between the coaching/student achievement relationship was the amount of time the coach spends with the principal</td>
<td></td>
</tr>
<tr>
<td>Author(s)</td>
<td>Sample Size</td>
<td>Data Description</td>
<td>Study Type</td>
<td>Research Question</td>
<td>Findings</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>------------------</td>
<td>------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Swartz, S. L. (2005)</td>
<td>Over 17,000 teachers in 1,167 schools</td>
<td>Reports from 6 states</td>
<td>Quantitative</td>
<td>Researchers wanted to see if professional development and the guidance of a literacy coach increased student achievement.</td>
<td>Schools that had a literacy coach had exceeded their growth goal.</td>
</tr>
<tr>
<td>Yoon, K. S., Duncan, T., Lee, S. W. Y., Scarloss, B., &amp; Shapley, K. L. (2007)</td>
<td>Between 5-44 teachers and 98-779 students</td>
<td>9 studies</td>
<td>Qualitative</td>
<td>Does having teacher professional development affect student?</td>
<td>Studies showed that teachers who had over 14 hours of professional development had students that showed a significant gain on their achievement.</td>
</tr>
<tr>
<td>Young, T. (2008)</td>
<td>28 teachers</td>
<td>N/A</td>
<td>Quantitative</td>
<td>Is there a statistical significant relationship between teacher receiving professional development coaching and student achievement?</td>
<td>There was a statistical significant relationship between teacher receiving professional development coaching and student achievement.</td>
</tr>
</tbody>
</table>
Summary

In order for students to succeed in any content area, they need to be able to read at a proficient level. However, students in Mississippi are failing to become proficient readers. The impact literacy coaches have on student achievement is a new area of research. The review of literature suggests that literacy coaches in schools can help students’ achievement levels. Yet, there is a great need for further research on the impact literacy coaches have on student achievement.

Having literacy coaches placed in schools is not a new concept. The movement has been in existence since the implementation of the Reading First grant in 2002 (Stevens, 2003). In pursuit of at least partially fulfilling the requirements of the LBPA, MDE has focused on hiring literacy coaches who are qualified, trained, and evaluated for consistency. The Mississippi literacy coaching model is a scientifically-based method grounded in Pearson and Gallagher’s (1983) Gradual Release of Responsibility (GRR). The GRR has been also implemented by Moats, Toleman, Davidson, Hennessy, Hall, Montgomery, and Ilk (2009-2013) in the scientifically-based reading research approach LETRS. MDE requires all support schools to utilize LETRS with their reading program.

Another component of Mississippi’s literacy coaching model is the incorporation of Vygotsky’s theory of teaching and learning through promoting collaboration among coaches, teachers, and students. MDE’s use of the GRR method and collaboration are reflected in the coaching model, demonstrating that the method and collaboration, and utilizing LETRS training in all Grade K-3 classrooms are priorities for MDE and that coaches are well-versed in such approaches.
Mississippi is starting to show much improvement in the area of literacy; other states, including Colorado, Florida, Ohio, Tennessee, and South Carolina, are aware of that progress and have requested assistance from MDE’s literacy team (MDE, 2016). The fact that other states are looking at Mississippi for advice in education reflects its growing achievement.
CHAPTER III

METHODOLOGY

Introduction and Overview

Chapter III discusses the design of the study, population, research questions, hypotheses, instrument, procedures, and data analysis. The researcher explored whether literacy coaches in low-performing schools impact the reading growth of students in Grades K-3. The researcher compared two schools that have literacy coaches to two schools that do not have literacy coaches by analyzing the results of students’ reading growth. Growth was determined by finding the difference(s) between the posttest and pretest on the Early Literacy STAR and STAR assessments.

Quasi-Experimental, Between-Subject Design

This study was a quasi-experimental, between-subject design with no random assignment to determine the impact literacy coaches had on student reading growth. This design was chosen because student participants were randomly assigned to their groups by administrator placement. Kindergarten students were assessed with the Early Literacy STAR assessment during the 2015-2016 school year with a pretest in August and a posttest in April/May. The first through third-grade students were assessed with the STAR assessment during the 2015-2016 school year with a pretest in August and a posttest in April/May. The differences between the posttest and pretest were used to determine their reading growth throughout the year. The design overview is represented in Table 5.
Table 5: The Quasi-Experimental, Between-Subject Design

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Independent Variables</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference between the EOY and BOY on the Early Literacy STAR and STAR assessment</td>
<td>Schools with literacy coaches and without literacy coaches</td>
<td>Independent t-test</td>
</tr>
</tbody>
</table>

The data was organized into two groups; those two groups were then divided into four subgroups of grades based on grade level. A weakness of this design is that the results may not be able to be generalized throughout the population (Creswell, 2009).

**Population and Participants**

This study used a convenience sampling of 63 teachers and 1,208 students in four schools. All information was requested via an email requirement letter (see Appendix D) sent to 251 administrators. The researcher requested the growth report, grouped by teacher for the school year 2015-2016, and four administrators replied (<2%). Data was kept confidential and contained no identifying information.

The schools were clustered together to form two groups: schools with coaches (coached schools) and schools without coaches (uncoached schools). Those groups were divided into four subgroups based on grade level: kindergarten, first-grade, second-grade, and third-grade. The students’ placements in the classes were determined by the administrator; the researcher is unaware of how students were placed in each class (see Table 6).
Table 6: Population

<table>
<thead>
<tr>
<th></th>
<th>Schools with Coaches</th>
<th>Schools with no Coaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>n₁ teachers</td>
<td>n₁ students</td>
</tr>
<tr>
<td>K</td>
<td>4</td>
<td>93</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>105</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>95</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>110</td>
</tr>
</tbody>
</table>

The researcher analyzed the data that was voluntarily submitted by administrators. The student population was consistent in terms of demographic characteristics including race for three of the four schools. In schools one, two, and three, the population of African American students was 80% or more, and the remainder of the population was Caucasian, Hispanic, or other. For the fourth school, 22% of the student population was African American, and the remainder of the population was Caucasian, Hispanic, or other. Gender was not a variable analyzed. The data submitted to the researcher from coached schools had the state accountability rating of an F. Data submitted to the researcher from uncoached schools had the state accountability rating of a D.

Results of a state-mandated assessment, the Mississippi Curriculum Test (MCT2), determined the schools’ accountability ratings. Students were administered the assessment during the 2013-2014 school year. Normally, these levels change from year to year, but Mississippi transitioned from the MCT2 to Partnership for Assessment of Readiness for College and Careers (PARCC) for school year 2014-2015 then to Mississippi Assessment Program (MAP) for school year 2015-2016. School districts are rated an A, B, C, D, or F; A indicates success, and F indicates failing.
Research Questions

1. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in kindergarten?
2. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in first-grade?
3. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in second-grade?
4. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in third-grade?

Null Hypotheses

Null Hypothesis One: There is not a significant difference in kindergarteners’ reading growth in schools with literacy coaches versus schools without literacy coaches.
Null Hypothesis Two: There is not a significant difference in first-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.
Null Hypothesis Three: There is not a significant difference in second-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.
Null Hypothesis Four: There is not a significant difference in third graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Instrument

For this study, the researcher used Early Literacy STAR and the STAR Assessment to measure students’ literacy levels. This is a computer adaptive test that adjusts as students take the assessment. This tool was used because it is widely utilized across the state of Mississippi.
and provided consistency in the data collection. Tables 7 through 10 demonstrate the validity and reliability data of the Early Literacy STAR.

Table 7: Summary of STAR Early Literacy Validity Studies

<table>
<thead>
<tr>
<th>Grade</th>
<th>Predictive</th>
<th>Concurrent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Studies</td>
<td>Students</td>
</tr>
<tr>
<td>K</td>
<td>15</td>
<td>30,423</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>24,525</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>5,370</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>558</td>
</tr>
</tbody>
</table>

*Note.* Adapted from “The Science of STAR,” by James R. McBride.

Table 8: Summary of STAR Literacy Validity Studies

<table>
<thead>
<tr>
<th>Grade</th>
<th>Predictive</th>
<th>Concurrent and Other External Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Studies</td>
<td>Students</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>74,770</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>184,434</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>200,929</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>185,528</td>
</tr>
<tr>
<td>5</td>
<td>29</td>
<td>126,029</td>
</tr>
<tr>
<td>6</td>
<td>23</td>
<td>82,189</td>
</tr>
<tr>
<td>7</td>
<td>23</td>
<td>64,978</td>
</tr>
<tr>
<td>8</td>
<td>25</td>
<td>34,764</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>9,567</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>7,021</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>6,653</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>3,107</td>
</tr>
</tbody>
</table>

*Note.* Adapted from “The Science of STAR,” by James R. McBride.
Table 9: Internal Consistency and Retest Reliability of STAR Early Literacy

<table>
<thead>
<tr>
<th>Grade</th>
<th>Internal Consistency</th>
<th>Retest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Reliability Coefficient</td>
</tr>
<tr>
<td>All</td>
<td>3,083,334</td>
<td>.85</td>
</tr>
<tr>
<td>Pre-K</td>
<td>54,144</td>
<td>.81</td>
</tr>
<tr>
<td>K</td>
<td>1,427,660</td>
<td>.80</td>
</tr>
<tr>
<td>1</td>
<td>1,187,216</td>
<td>.82</td>
</tr>
<tr>
<td>2</td>
<td>340,912</td>
<td>.85</td>
</tr>
<tr>
<td>3</td>
<td>73,402</td>
<td>.89</td>
</tr>
</tbody>
</table>


Table 10: Internal Consistency and Retest Reliability of STAR Reading

<table>
<thead>
<tr>
<th>Grade</th>
<th>Internal Consistency</th>
<th>Retest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Reliability Coefficient</td>
</tr>
<tr>
<td>All</td>
<td>1,227,915</td>
<td>.97</td>
</tr>
<tr>
<td>1</td>
<td>100,000</td>
<td>.95</td>
</tr>
<tr>
<td>2</td>
<td>100,000</td>
<td>.94</td>
</tr>
<tr>
<td>3</td>
<td>100,000</td>
<td>.94</td>
</tr>
<tr>
<td>4</td>
<td>100,000</td>
<td>.93</td>
</tr>
<tr>
<td>5</td>
<td>100,000</td>
<td>.93</td>
</tr>
<tr>
<td>6</td>
<td>100,000</td>
<td>.93</td>
</tr>
<tr>
<td>7</td>
<td>100,000</td>
<td>.94</td>
</tr>
<tr>
<td>8</td>
<td>100,000</td>
<td>.94</td>
</tr>
<tr>
<td>9</td>
<td>95,171</td>
<td>.94</td>
</tr>
<tr>
<td>10</td>
<td>94,624</td>
<td>.95</td>
</tr>
<tr>
<td>11</td>
<td>93,118</td>
<td>.95</td>
</tr>
<tr>
<td>10</td>
<td>89,031</td>
<td>.95</td>
</tr>
</tbody>
</table>


The score that students received is based on a scaled score (SS) that was compared to the norms of students at the same grade level. Kindergarteners must achieve a SS of 669 or higher on the Early Literacy STAR assessment to be considered at benchmark. On the STAR assessment, first-graders need an SS of 251 or higher; second-graders need an SS of 427; and third-graders
need an SS of 547 or higher. According to McBride (2014), this test has been developed by looking at the research by Cassels and Johnstone (1984), Nicol (2007), Popham (2008), Russell, Fischer, Fischer, and Premo (2003), and Stiggins (2005), using Fredric M. Lord’s Item Response Theory (IRT).

IRT is a modern test theory (Kline, 2005). In classical test theory, it is assumed that all items are of equal weight, but in IRT items are individually analyzed and given a specific weight based on the complexity of the question. The test is based on the probability of how students will answer a question and will adjust as needed. If the students are answering the questions correctly, the test will continue to get more difficult. If the students are answering the questions incorrectly, it gets less challenging. Since the STAR has the ability to continually adjust, the scores are more valid (McBride, 2014). Unlike Elish-Piper and L’Allier’s (2010) study this assessment does not have a ceiling effect. Students are given the opportunity to demonstrate reading levels higher than a 12th-grade equivalency if needed.

**Procedures**

Once the IRB approved the research study data collection began. The researcher used school accountability rankings to identify schools at the D and F levels. This information was collected through public records on the MDE website (MDE, 2016). All schools were low-performing schools and also participated in the Early Literacy STAR and STAR assessment. The researcher sent out a recruitment email (see Appendix D) to 251 administrators, and four replied (<2%). Of the four schools that voluntarily participated in this study, two had literacy coaches during the 2015-2016 school year; the other two did not have MDE literacy coaches. All literacy coaches had the same extensive training provided by MDE. All schools, teachers, and students who participated remained anonymous. The administrators were asked to submit a kindergarten
through third-grade growth report. The growth report has paired data that shows the name of the student, the pretest score, and the posttest score. For an example of a growth report, see Table 11.

Schools one, two, and three submitted a growth report, but school four sent in the wrong report. The researcher asked the administrator at the fourth school for the correct report, but there was no response. The only available report for the fourth school was a benchmark report that listed pretest and posttest scores under the teacher’s names, but the data was not paired. A benchmark report combines all the students in a specific grade level and places each student within an achievement level: at/above benchmark, on watch, intervention, and urgent intervention. Students’ names are not listed, only the teachers’ names. See Table 12 for an example of a pretest benchmark report and Table 13 for an example of a posttest benchmark report. Once all data was collected and compiled, the researcher performed an independent t-test using the Statistical Package of the Social Sciences (SPSS) program to test the null hypotheses.

Table 11: Example of Growth Report (paired data)

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Student Name</th>
<th>Pretest scores</th>
<th>Posttest scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>Student 1</td>
<td>45</td>
<td>72</td>
</tr>
<tr>
<td>Teacher A</td>
<td>Student 2</td>
<td>58</td>
<td>87</td>
</tr>
<tr>
<td>Teacher A</td>
<td>Student 3</td>
<td>74</td>
<td>89</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Student 4</td>
<td>32</td>
<td>79</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Student 5</td>
<td>74</td>
<td>84</td>
</tr>
</tbody>
</table>
Table 12: *Example of a Pretest Benchmark Report (unpaired data)*

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Test Date (Pretest)</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher B</td>
<td>August, 2015</td>
<td>32</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>45</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>58</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>74</td>
</tr>
<tr>
<td>Teacher B</td>
<td>August, 2015</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 13: *Example of a Posttest Benchmark Report (unpaired data)*

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Test Date (Posttest)</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>72</td>
</tr>
<tr>
<td>Teacher B</td>
<td>April, 2016</td>
<td>79</td>
</tr>
<tr>
<td>Teacher B</td>
<td>April, 2016</td>
<td>85</td>
</tr>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>87</td>
</tr>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>89</td>
</tr>
</tbody>
</table>

**Data Analysis**

The researcher used SPSS to conduct an independent t-test on the data. The goal was to analyze the influence of the independent variable, schools with and without coaches, on the dependent variable, the difference between the EOY and BOY scores on the Early Literacy STAR and STAR scores. Using the alpha level of .05 or less, a statistically significant relationship was determined. If the results showed \( p > .05 \), then the researcher failed to reject the hypothesis because no significant difference was shown in the results.
Three sets of data were entered into the variable view of SPSS. In the first column, the code for coached (1) and uncoached (2) was entered. In the second column, the code for grade level was entered: kindergarten (0), first-grade (1), second-grade (2), and third-grade (3). In the third column, growth level (the difference between the posttest and the pretest scores on the Early Literacy STAR and STAR assessment) was entered. The researcher ran an independent t-test that included descriptive statistics.

For Hypothesis One, there was a significant difference of reading growth for kindergarteners in schools that had a literacy coach versus kindergartners in schools that did not have a literacy coach with the dependent variable being the difference between the EOY and BOY scores on the Early Literacy STAR assessment. For Hypothesis Two, there was a significant difference of reading growth for first-graders in schools that had a literacy coach versus first-graders in schools that did not have a literacy coach with the dependent variable being the difference between the EOY and BOY scores on the STAR assessment. For Hypothesis Three, there was not a significant difference of reading growth for second-graders in schools that had a literacy coach versus second-graders in schools that did not have a literacy coach with the dependent variable being the difference between the EOY and BOY scores on the STAR assessment. For Hypothesis Four, there was not a significant difference of reading growth for third-graders in schools that had a literacy coach versus third-graders in schools that did not have a literacy coach with the dependent variable being the difference between the EOY and BOY scores on the STAR assessment.

Summary

Chapter III reviewed the design of the study, population, research questions, hypothesis, instrument, procedures, and data analysis. A quantitative research design was used to measure
the impact that literacy coaching had on Mississippi’s lower-performing schools by finding the
difference to determine student growth during the 2015-2016 school year. The researcher used
the posttest and pretest scores from the Early Literacy STAR and STAR assessment. Data was
collected from four schools. Of the four schools, two had literacy coaches trained by the
Mississippi Department of Education, and two did not have literacy coaches. Data was analyzed
from 63 teachers and 1,208 students in total. Coached schools had the state accountability rating
of an F, and uncoached schools had the state accountability rating of a D. All students in grades
kindergarten through third-grade were pre-tested at the beginning of the 2015-2016 school year
and post-tested at the end of the 2015-2016 school year using Early Literacy STAR for
kindergarten and STAR Literacy assessments for first through third-grade to determine their
reading level. Once those scores were obtained, the researcher conducted an independent t-test
to investigate whether there was a statistical significance between schools that had literacy
coaches versus schools that did not have literacy coaches. Chapter IV will discuss the results of
the study
CHAPTER IV

RESULTS AND DATA ANALYSIS

The purpose of this study was to examine the impact literacy coaches had on kindergarten through third-grade students’ reading growth during the 2015-2016 school year. Chapter IV reviews the population, research questions, null hypotheses, data analysis, and results.

Population

The researcher requested data from 251 schools and four (< 2%) voluntarily submitted STAR Early Literacy (reading assessment for kindergarteners) and STAR Assessment (reading assessment for Grades 1-12) data for the school year 2015-2016. These assessments are administered three times a year, the beginning of the year (BOY), middle of the year (MOY), and the end of the year (EOY). For this study, the researcher only collected the BOY and EOY. The population of this study consisted of 19 teachers and 403 students from two schools that had literacy coaches and 44 teachers and 850 students from two schools that did not have literacy coaches, for a total of 63 teachers, 1,208 students from four schools (see Table 14 for complete breakdown).
Table 14: Population

<table>
<thead>
<tr>
<th>Grade</th>
<th>n₁ teachers</th>
<th>n₁ students</th>
<th>n₂ teachers</th>
<th>n₂ students</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>4</td>
<td>93</td>
<td>14</td>
<td>231</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>105</td>
<td>13</td>
<td>257</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>95</td>
<td>12</td>
<td>261</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>110</td>
<td>5</td>
<td>101</td>
</tr>
</tbody>
</table>

Where n₁ is equal to the number of teachers and n₁ is equal to the number of students in schools with coaches; n₂ is equal to the number of teachers and n₂ is equal to the number of teachers in schools with no coaches.

The independent variable is whether the schools had literacy coaches or not; two of those schools had literacy coaches and had a state accountability ranking of F. The other two schools did not have a literacy coach and had a state accountability ranking of D. The dependent variable, the difference between the EOY and BOY on the Early Literacy STAR and STAR assessment, was the instrument used to measure reading growth.

Research Questions

1. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in kindergarten?
2. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in first-grade?
3. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in second-grade?
4. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in third-grade?
Null Hypotheses and Statistical Tests

Null Hypothesis One: There is not a significant difference in kindergarteners’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Two: There is not a significant difference in first-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Three: There is not a significant difference in second-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Four: There is not a significant difference in third-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

The Statistical Package for the Social Sciences (SPSS) was used to conduct an independent t-test to analyze the impact of the independent variable, schools with or without literacy coaches, and the dependent variable, the difference between the EOY and BOY Early Literacy STAR and STAR scores. Growth measurements were obtained by analyzing the paired data and finding the differences between the posttest and pretest scores on the Early Literacy STAR and the STAR assessment. Three of the four schools’ administrators submitted a growth report that had paired data. The report listed the students’ names, pretest scores, posttest scores, and the amount of growth that took place during the 2015-2016 school year. For an example, see Table 15, and to see an authentic mock report, see appendix E. The administrator from the fourth school, part of the control group, submitted a report that was not a growth report but a benchmark report.
Table 15: Example of Pretest and Posttest Screening Report (paired data)

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Student Name</th>
<th>BOY</th>
<th>EOY</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher A</td>
<td>Student 1</td>
<td>45</td>
<td>72</td>
<td>27</td>
</tr>
<tr>
<td>Teacher A</td>
<td>Student 2</td>
<td>58</td>
<td>87</td>
<td>29</td>
</tr>
<tr>
<td>Teacher A</td>
<td>Student 3</td>
<td>74</td>
<td>89</td>
<td>15</td>
</tr>
<tr>
<td>Class 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher B</td>
<td>Student 1</td>
<td>32</td>
<td>79</td>
<td>47</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Student 2</td>
<td>74</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Student 3</td>
<td>49</td>
<td>84</td>
<td>35</td>
</tr>
</tbody>
</table>

A benchmark report combines all the students in a specific grade level and places each student within an achievement level: at/above benchmark, on watch, intervention, and urgent intervention. Students’ names were removed for confidentiality, and only the teachers’ names were given. For an example, see Tables 16 and 17; to see an authentic mock report, see Appendices F and G. The difference between the growth report and the benchmark report is critical and will be made clear below. The benchmark report only allows the researcher to group data by teacher and pretest or posttest but does not permit pairing the data because student names were unavailable. As seen below, scores are in numerical order and cannot be matched to students. To compensate for the different types of data collection, the researcher had to find an estimated standard deviation.
Table 16: Example of a Pretest Benchmark Report (unpaired data)

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Test Date (Pretest)</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher B</td>
<td>August, 2015</td>
<td>32</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>45</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>58</td>
</tr>
<tr>
<td>Teacher A</td>
<td>August, 2015</td>
<td>74</td>
</tr>
<tr>
<td>Teacher B</td>
<td>August, 2015</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 17: Example of a Posttest Benchmark Report (unpaired data)

<table>
<thead>
<tr>
<th>Teacher Name</th>
<th>Test Date (Posttest)</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>72</td>
</tr>
<tr>
<td>Teacher B</td>
<td>April, 2016</td>
<td>79</td>
</tr>
<tr>
<td>Teacher B</td>
<td>April, 2016</td>
<td>85</td>
</tr>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>87</td>
</tr>
<tr>
<td>Teacher A</td>
<td>April, 2016</td>
<td>89</td>
</tr>
</tbody>
</table>

The growth report provided both the BOY and EOY data for each student and the growth could be determined from that information. The benchmark data did not provide an individual BOY and EOY for each student, so it was not possible to determine the growth for each student; however, it is possible to find the mean growth score for each grade level in all schools regardless of the report. The researcher used an independent t-test; therefore, it was necessary to know the standard deviation for all grade levels for all four schools to make sure the results of the t-test are valid. The standard deviation from the treatment and control group must be reasonably close; if the standard deviations are too far apart, the t-test would be deemed invalid.
It was only possible to find the standard deviation for schools one, two, and three because a growth report was submitted. It was not possible to find the true standard deviation for school four, so the researcher found an estimated standard deviation.

To find the estimated standard deviation, schools one, two, and three were combined for each grade level, and the standard deviation was established. To complete this task using Microsoft Excel, the researcher entered the posttest scores, the pretest scores, and found the difference to determine the growth during the 2015-2016 school year for each grade level. The standard deviation was found for each grade level. This established a goal standard deviation which needed to be met for that grade level in school four. Using this method was based on the critical assumption that the growth data had similar standard deviations regardless of the variation of the means. This is the same assumption used to validate the use of the t-test.

Once the goal standard deviation for each grade level was established for each grade level, using Excel, the pretest scores from school four were placed in column two and the posttest scores from school four were entered column one, and the difference was found. The mean and standard deviation were calculated from the difference. To make adjustments to the standard deviation, the data in column two was moved around so the standard deviation would change but the mean would remain the same. Once the standard deviation was adjusted as close as possible to the goal standard deviation for that grade level, the data in column one and two represented the paired data. Finding an estimated standard deviation for column three was completed by finding the difference between the posttest and pretest scores which represented growth. This process was used for kindergarten, first-grade, and second-grade. It was not necessary to use this process for third-grade because school four was only a Grade K-2 school. See Table 18 for goal standard deviations and estimated standard deviations for school four.
Table 18: *Estimated Standard Deviations for School Four*

<table>
<thead>
<tr>
<th>Grade</th>
<th>Goal SD</th>
<th>Estimated SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>88.0818</td>
<td>88.08222</td>
</tr>
<tr>
<td>1</td>
<td>69.18873</td>
<td>69.11893</td>
</tr>
<tr>
<td>2</td>
<td>72.45132</td>
<td>72.46352</td>
</tr>
</tbody>
</table>

Data Analysis

The difference between pretest and posttest Early Literacy STAR and the STAR Assessment from the school year 2015-2016 was analyzed using descriptive statistics that included the means and standard deviation (see Table 19). An independent t-test was conducted using SPSS to analyze the impact of the independent variable, coached or uncoached schools, on the dependent variable, the difference between the EOY and BOY scores on the Early Literacy STAR and STAR scores. Using the alpha level of .05 or less, a statistically significant positive relationship was determined.
Table 19: Descriptive Statistics

<table>
<thead>
<tr>
<th>Grade</th>
<th>n₁teachers</th>
<th>n₁students</th>
<th>( \bar{x} ) Growth</th>
<th>SDc</th>
<th>n₂teachers</th>
<th>n₂students</th>
<th>( \bar{x}_{nc} ) Growth</th>
<th>SDnc</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>4</td>
<td>93</td>
<td>214.10</td>
<td>88.531</td>
<td>14</td>
<td>231</td>
<td>190.65</td>
<td>88.277</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>105</td>
<td>62.03</td>
<td>59.961</td>
<td>13</td>
<td>257</td>
<td>122.80</td>
<td>70.147</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>95</td>
<td>106.89</td>
<td>74.892</td>
<td>12</td>
<td>216</td>
<td>111.25</td>
<td>72.782</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>110</td>
<td>99.85</td>
<td>76.361</td>
<td>5</td>
<td>101</td>
<td>92.42</td>
<td>74.327</td>
</tr>
</tbody>
</table>

Where \( n₁ \) is equal to the number of teachers, \( n₁s \) is equal to the number of students, \( \bar{x}_c \) Growth is equal to the mean growth, and SDc is equal to the standard deviation for schools with coaches; \( n₂ \) is equal to the number of teachers, \( n₂s \) is equal to the number of teachers, \( \bar{x}_{nc} \) Growth is equal to the mean growth, and SDnc is equal to the standard deviation for schools with no coaches.

Results

The research questions were

1. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in kindergarten?

2. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in first-grade?

3. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in second-grade?

4. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in third-grade?

Analysis of Data for Null Hypothesis One

Hypothesis One: There is not a significant difference in kindergarteners’ reading growth in schools with literacy coaches versus schools without literacy coaches.
The researcher was able to reject the null hypothesis. The dependent variable, the difference between the EOY and BOY scores on the STAR Early Literacy assessment for kindergarten that had a literacy coach had a mean of 214.10, with a standard deviation of 88.531, and the STAR Early Literacy scores for kindergarten that did not a literacy coach had a mean of 190.65 with a standard deviation of 88.277. Tests for significance were conducted at the 0.05 level. An independent t-test was conducted to analyze the difference between kindergarten students’ posttest scores and pretest scores during the 2015-2016 school year. The independent t-test suggested a significant difference between coached schools and uncoached schools, $t = 2.161 > 1.645$, therefore rejecting the null hypothesis. This data suggests that schools that have literacy coaches working with kindergarten teachers had a significant positive difference in growth than schools that did not have literacy coaches (see Table 20). Levene’s Test for Equality of Variances was analyzed and the results demonstrated the variability of the conditions were about the same with a significance of $0.559 > 0.05$.

Table 20: Independent t-test for Kindergarten STAR Early Literacy Scores

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Significance: p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.161</td>
<td>322</td>
<td>0.031</td>
</tr>
</tbody>
</table>

Note. $\alpha = 0.05$

Analysis of Data for Null Hypothesis Two

Hypothesis Two: There is a significant difference in first-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

The researcher was able to reject the null hypothesis. The dependent variable, the difference between the EOY and BOY scores on the STAR Literacy assessment for first-grades that had a literacy coach had a mean of 62.03, with a standard deviation of 59.961, and the STAR
Literacy scores for first-grade that did not a literacy coach had a mean of 122.80 with a standard of 70.147. Tests for significance were conducted at the 0.05 level. An independent t-test was conducted to analyze the difference between first-grade students’ posttest scores and pretest scores during the 2015-2015 school year. The independent t-test suggested a negative significant difference between coached schools and uncoached schools, \( t = -7.789 < 1.645 \), therefore rejecting the null hypothesis. This data suggests that schools that have literacy coaches working with first-grade teachers are more harmful to students’ reading growth compared to schools that did not have literacy coaches (see table 21). Levene’s Test for Equality of Variances was analyzed and the results demonstrated the variability of the conditions were not the same with a significance of .010 < .05. Due to the lack of similarity with the standard deviations for schools with coaches and schools without coaches, the results of the t-test leads to a conclusion that is questionable.

Table 21: *Independent t-test for STAR Scores for first-grade*

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Significance: p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>-7.789</td>
<td>360</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note. \( \alpha = .05 \)

Analysis of Data for Null Hypothesis Three

Hypothesis Three: There is not a significant difference in second-graders’ reading growth in schools with literacy coach’s vs schools without literacy coaches.

The researcher was unable to reject the null hypothesis. The dependent variable, the difference between the EOY and BOY assessment on the STAR Literacy scores for second-grades that had a literacy coach had a mean of 106.89, with a standard deviation of 74.892, and the STAR Literacy scores for second-grade that did not a literacy coach had a mean of 111.25 with a standard deviation of 72.782. An independent t-test was conducted to analyze the difference between second-grade students’ posttest scores and pretest scores during the 2015-
2015 school year. The independent t-test suggested no significant difference between coached schools and uncoached schools, \( t = -0.482 < 1.645 \), therefore not rejecting the null hypothesis. This data suggests that schools that have literacy coaches working with second-grade teachers did not have a significant difference in growth compared to schools that did not have literacy coaches (see Table 22). Levene’s Test for Equality of Variances was analyzed and the results demonstrated the variability of the conditions were about the same with a significance of .545 > .05.

Table 22: Independent t-test for STAR Scores for second-grade

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Significance: p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.482</td>
<td>309</td>
<td>.630</td>
</tr>
</tbody>
</table>

Note. \( \alpha = .05 \)

Analysis of Data for Null Hypothesis Four

Hypothesis Four: There is not a significant difference in third-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

The researcher was unable to reject the null hypothesis. The dependent variable, the difference between the EOY and BOY assessment on the STAR Literacy scores for third-grades that had a literacy coach had a mean of 99.85, with a standard deviation of 76.361, and the STAR Literacy scores for third-grade that did not a literacy coach had a mean of 92.42 with a standard deviation of 72.327. An independent t-test was conducted to analyze the difference between third-grade students’ posttest scores and pretest scores during the 2015-2015 school year. The independent t-test suggested no significant difference between coached schools and uncoached schools, \( t = 0.664 < 1.645 \), therefore not rejecting the null hypothesis. This data suggests that schools that have literacy coaches working with third-grade teachers did not have a significant difference in growth compared to schools that did not have literacy coaches (see Table 23).
Levene’s Test for Equality of Variances was analyzed and the results demonstrated the variability of the conditions were about the same with a significance of .664 > .05. Although the results were not significant, it is noted that the pattern of growth was in the wrong direction. Students in schools with no coaches had more growth than their counterparts in schools with coaches.

Table 23: Independent t-test for STAR Scores for third-grade

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Significance: p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>.724</td>
<td>209</td>
<td>.470</td>
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</tbody>
</table>

*Note. \( \alpha = .05 \)

**Summary of the Results**

Chapter IV started with the population, research questions, null hypotheses, data analysis, and results. The difference between the pretest and posttest Early Literacy STAR and the STAR Assessment from the school year 2015-2016 was analyzed to determine whether having literacy coaches in kindergarten through third-grade classes would have an impact on student reading growth.

The researcher was able to reject the null hypothesis at the kindergarten level. The data suggested that having literacy coaches in kindergarten classes had a statistical significance in reading growth. The researcher was able to reject the null hypothesis at the first-grade level because the data demonstrated negative statistical significance in reading growth which demonstrated that having literacy coaches in first-grade was more harmful to students’ growth. The researcher was unable to reject the null hypotheses at the second and third-grade level because there was not a statistically significant difference in reading growth for schools that had a literacy coach versus schools that did not have literacy coach.
The understanding provided by this study will address the lack of research data for the impact literacy coaches make in kindergarten through third-grade classes. Results from this study offer information related to the use of literacy coaches which could be used in the decision-making process to assist kindergarten through third-grade students to develop reading proficiency. Conclusions, discussion, implications, and further recommendations will follow in Chapter V.
CHAPTER V

SUMMARY AND DISCUSSION

Chapter V includes a summary, results, implications, recommendations, and conclusion. The first section provides a summary of the purpose and research design. The second section reviews the results. The third and fourth sections include the implications and recommendations, respectively, of the study. Finally, conclusions on the impact literacy coaches had in Mississippi’s lower-performing schools are presented.

Summary of Purpose and Research Design

This section will present a summary of the purpose and research design. The purpose of this study was to investigate whether job-embedded professional development provided by literacy coaches impact students’ reading levels.

Four research questions and four hypotheses directed this study.

1. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in kindergarten?

2. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in first-grade?

3. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in second-grade?

4. Will the job-embedded professional development provided by literacy coaches impact students’ reading levels in third-grade?
Null Hypothesis One: There is not a significant difference in kindergarteners’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Two: There is not a significant difference in first-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Three: There is not a significant difference in second-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

Null Hypothesis Four: There is not a significant difference in third-graders’ reading growth in schools with literacy coaches versus schools without literacy coaches.

This study was a quasi-experimental, between-subject design with no random assignment to determine the impact literacy coaches had on student reading growth. The researcher used statistical analyses to determine whether schools with literacy coaches impacted kindergarten through third-grade students’ reading growth during the 2015-2016 school year. The treatment group had an MDE literacy coach, and the control group did not have a literacy coach during the 2015-2016 school year. To determine reading growth, the researcher analyzed data from the Early Literacy STAR assessment for kindergarten students and the STAR assessment for first-grade through third-grade students. The differences between the posttest and the pretest were found to determine student reading growth during the school year.

Results

The following are the findings of this study.

1. According to the results for the first research question, having literacy coaches work with kindergarten teachers significantly improve students’ reading growth.

2. According to the results for the second research question, having literacy coaches work with first-grade teachers does not significantly improve students’ reading
growth; in fact, it may be harmful to students reading growth to have literacy coaches work with first-grade teachers. The lack of similarity of standard deviations of the treatment and control groups call into question the use of the t-test.

3. According to the results for the third research question, having literacy coaches work with second-grade teachers does not significantly improve students’ reading growth.

4. According to the results for the fourth research question, having literacy coaches work with third-grade teachers does not significantly improve students’ reading growth.

**Implications**

According to the quantitative data, there is a significant difference in students’ positive reading growth at the kindergarten level and a negative reading growth at the first-grade level where coaches were present. At the second and third-grade level, there was not a significant difference in students’ reading growth. There are several reasons to consider why the research failed to reject the null hypotheses for first through third-grade:

1. These results could be an implication of the coach spending more time with teachers at the kindergarten level and not as much time at the first through third-grade level. The researcher asked for permission to view literacy coaches’ hourly logs, but MDE personnel declined due to confidentiality. See Appendix H for an example of a coaching log.

2. The coached schools had a state accountability rating of F and the uncoached schools had a state accountability rating of D which may contribute to the adverse growth difference in reading in first-grade; however, the kindergarteners in the coached schools did show significant positive gains.
3. Kindergarten is not required in Mississippi (MDE, 2015). The law states the compulsory-school age is six years old before September 1. The researcher interviewed Brittany Harrington, Early Childhood Specialist for MDE. She stated that is possible that students to not attend kindergarten and go directly into the first-grade (personal communication, April 11, 2017).

4. The researcher analyzed the first-grade data for the treatment and control group to investigate whether BOY scores from schools with no coaches started the 2015-2016 school year at a lower level and then caught up with the schools with coaches by the end of the year; thus, showing more growth. The mean BOY for first-graders in schools with coaches was 89.7, and the first-grade students’ mean BOY in schools with coaches was 91.2. There is only a one and a half point difference between the schools with coaches and the schools without coaches.

**Recommendations**

If this study is replicated, a larger population would be appropriate. It is difficult to determine whether the results can be generalized when only four schools participated in this study. During the 2015-2016 school year, there were 251 schools that ranked at a D or F level (MDE, 2016), and of those, 126 schools had literacy coaches. Fewer than 2% of the schools with a state accountability rank of D or F participated in this study.

Data collected should be consistent. Using the growth report for schools one, two, and three, were beneficial, but the benchmark report for school four may have altered the results because the researcher had to estimate the standard deviation to pair the data. Future researchers should collect and analyze more demographic data on the teacher such as, number of years taught, grades taught, education route to licensure, and willingness to cooperate with the literacy
coach. Future researcher should also be sure to collect and analyze data on the individual coach in each school such as how often do they visit a classroom, how many hours do the coaches spend modeling and co-teaching, what type of follow-up is taking place after a professional development, etc.

Conclusion

This study focused on the impact of literacy coaches in Mississippi’s lower-performing schools and found that at the kindergarten level coaches can make a positive difference in reading growth, but at the first-grade level, coaching was harmful for students. At the second and third-grade level, this study showed that coaching did not make a difference. With these conclusions, further research is recommended.

If additional research is sought, one specific piece of data that would greatly benefit this study would be the coaching logs, see Appendix H. Having access to this information allows the researchers to calculate how many hours a coach spends in a specific grade level. Ideally, having a research team overlook the coaching process to observe the interactions between the coach and teacher would give the study a wealth of information and add a qualitative component to the study. Also, the researchers will be able to observe that the coaches are delivering quality guidance to teachers. To achieve this, any further research must be accompanied by an agreement by MDE, individual school districts, and schools to share private data. Naturally, that should also include respect by the researcher for the privacy of students, teachers, and administration. For significant data to be released, trust must exist so that research data can be used to its fullest potential.


*Literacy Research and Instruction, 51*(1), 27-47.


Fielding, L., Kerr, N., & Rosier, P. (1998). *The 90% reading goal: 90% of our students will read at or above grade level by the end of third grade.* New Foundation Press.


http://www.textproject.org/assets/library/papers/Samuels-Rasinski-Hiebert-2011-Eye-
movements-and-reading.pdf


Trivelli-Bowen, B. (2016). *A day in the life of a literacy coach*.


LIST OF APPENDICES
APPENDIX A: LBPA LITERACY TARGET SCHOOLS NON-NEGOTIABLES 2014 - 2015
1. Common Core State Standards (CCSS) Connections
   - Lesson Planning/Delivery of Instruction
   - Centers/Small group instruction
   - Demonstrate Mastery of CCSS

2. Anchor Charts
   - Content- anchor information, understanding & concepts
   - Process- anchor procedure, sequence, or how-to
   - Product- anchor purposeful independent work
     - Skeleton
     - Interactive
     - Independent

3. Data Walls/Room
   - Data Teams
     - “Getting the Most Out Of STAR” document

4. Writing

5. Classroom Word Walls
   - Interactive
   - Content area
   - Tier II Words

6. PLCs
   - Gradual Release (Teacher Led)

7. Uninterrupted Reading Block (90-120mins)
APPENDIX B: A DAY IN THE LIFE OF A LITERACY COACH
A Day in the Life of a Literacy Coach

A typical day for literacy coaches can differ significantly from school to school because all schools have different needs. Literacy Coach X (2016) was a literacy coach at a Mississippi elementary school. Her day starts by greeting all her teachers and asking if the teachers need any resources or have questions. One of her responsibilities, in line with the descriptions offered in this literature review, was to conduct PDs. For one of her schools she conducts a PD on the literacy kit teachers received after they completed the LETRS training (see PowerPoint in Appendix C). Teachers attend the PD during their planning time to learn new strategies which can be applied in their classrooms. Teachers bring their literacy kits, which are filled with many literacy manipulatives, with which they may practice strategies introduced by the literacy coach.

The PD was delivered with a PowerPoint presentation used for talking points. During the presentation, Trivelli-Bowen follows the gradual release of responsibility method using the “I do, we do, you do” process introduced by Pearson and Gallagher (1983) and implemented by Moats (2009-2013). First, she demonstrates how to use the materials in the kit. After that, Trivelli-Bowen and the teachers use the strategies together. Detailed explanations of the strategies are presented in the PowerPoint in Appendix B. Finally, teachers practice alone. This process gives the teachers time to use the manipulatives before they introduce the kit to the students. Teachers learn how to use the manipulatives when teaching the five components of reading. At the end of the PD, Trivelli-Bowen offers to go into a classroom and model and/or co-teach with the teachers. She does this for all teachers in kindergarten through third-grade. A date was set for when the teachers must start using the kits. Trivelli-Bowen follows up the PD by visiting each classroom to make sure teachers are using the kits. On the prearranged date, she models or co-teaches with teachers as needed.
In the following days, Trivelli-Bowen models, co-teaches, or observes teachers utilizing the kit. Depending on how the lessons progress, she may intervene and assist the teachers. A follow-up conference to discuss the session were scheduled. During that conference, another observation and follow-up will be scheduled until the teacher was comfortable conducting the lesson. These activities represent the job-embedded training that literacy coaches use to positively impact student achievement.
APPENDIX C: LITERACY KIT POWERPOINT
Literacy Kit Materials

- Magnetic Boards
- Magnetic Letters
- Felt Cloth
- Magnetic Sentence Building Set
- Making Words Set
- Reading Rods
- Lower Case Stamps
- Upper Case Stamps

- Digital Timer(s)
- Sand Timer(s)
- Write On/Wipe Off Sleeves
- Corrugated Cardboard Letter Case
- Sheet Protectors

K-3 Literacy Kit Materials

©MDE – Literacy-Based Promotion Act
Alignment to the Components of Reading and the Mississippi College and Career Readiness Standards

**Phonological Awareness**

- **CCRS.ELA-LITERACY.RF.1.2**
  - Demonstrate understanding of spoken words, syllables, and sounds (phonemes).

- **CCRS.ELA-LITERACY.RF.1.2.A**
  - Distinguish long from short vowel sounds in spoken single-syllable words.

- **CCRS.ELA-LITERACY.RF.1.2.B**
  - Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.

- **CCRS.ELA-LITERACY.RF.1.2.C**
  - Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.

- **CCRS.ELA-LITERACY.RF.1.2.D**
  - Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

**Phonics and Word Recognition**

- **CCRS.ELA-LITERACY.RF.1.3**
  - Know and apply grade-level phonics and word analysis skills in decoding words.

- **CCRS.ELA-LITERACY.RF.1.3.A**
  - Know the spelling-sound correspondences for common consonant digraphs.

- **CCRS.ELA-LITERACY.RF.1.3.B**
  - Decode regularly spelled one-syllable words.

- **CCRS.ELA-LITERACY.RF.1.3.C**
  - Know final -e and common vowel team conventions for representing long vowel sounds.

**Print Concepts**

- **CCRS.ELA-LITERACY.RF.1.1**
  - Demonstrate understanding of the organization and basic features of print.

- **CCRS.ELA-LITERACY.RF.1.1.A**
  - Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
Phonics and Word Recognition (cont.)

**CCRS.ELA-LITERACY.RF.1.3.D**
Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.

**CCRS.ELA-LITERACY.RF.1.3.E**
Decode two-syllable words following basic patterns by breaking the words into syllables.

**CCRS.ELA-LITERACY.RF.1.3.F**
Read words with inflectional endings.

**CCRS.ELA-LITERACY.RF.1.3.G**
Recognize and read grade-appropriate irregularly spelled words.

Fluency and Language

**CCRS.ELA-LITERACY.RF.1.4**
Read with sufficient accuracy and fluency to support comprehension.

**CCRS.ELA-LITERACY.RF.1.4.A**
Read grade-level text with purpose and understanding.

**CCRS.ELA-LITERACY.RF.1.4.B**
Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.

**CCRS.ELA-LITERACY.RF.1.4.C**
Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

**CCRS.ELA-LITERACY.L.1.2**
Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

**CCRS.ELA-LITERACY.L.1.2.B**
Use end punctuation for sentences.

Literacy Kit Activities

**Associating Sounds/Words with Objects RF.K.3 (Phonemic Awareness)**

**Routine**

I do: (It is recommended that each student begin with a green felt square.) We are going to tap our felt square each time we hear a sound. One square for each sound. Watch as I tap out the word "cat" as in "My cat is brown."

/gr/ /at/ /k/

Green Orange Red

Glide your finger under the felt squares after tapping out the sounds and then say the whole word "Cat."

We do: Let's tap out the word "cat" as in "I have a brown cat. "cat." Complete with students.

You do: Allow students to practice independently of your voice.

Repeat steps with additional words.

**Positive Error Correction**

Always return to "I do" (modeling) when there is a student error or confusion.

I do: If a student ("Billy") taps each sound correctly but misses the word when gliding his finger under the word, say you tapped each sound correctly. Listen as I glide my finger under each sound.

We do: Provide a practice with the whole group. Complete with students.

You do: Billy, can you tap out the word "cat" as in "My cat is brown."

Variations

Objects: felt squares, plastic discs, erasers

Can be used for: segmenting phonemes, onset & rime, segmenting syllables, etc.

Kit Materials:

- Felt Squares
**Bumpy Blending**

**RF.K.3, RF. 1.3 (Phonemic Awareness)**

**Routine**
- I do: Listen to me do Bumpy Blending one sound at a time.
  - Sad
    - Tap the 1st dot /s/.
    - Tap the 2nd dot /a/.
    - Tap the 3rd dot /d/.
  - We do: Complete together.
  - You do: Have students complete independently of your voice. Students may take turns. All students should be following along even when it is not their turn to speak.
  - Use with I do, We do, You do. Repeat steps with additional words.

**Kit Materials:**
- Magnetic Boards
- Felt Squares

**Smooth Blending**

**RF.K.3, RF. 1.3 (Phonemic Awareness)**

**Routine**
- I do: Listen to me do Bumpy Blending one sound at a time.
  - Sad
    - Tap the 1st dot /s/.
    - Tap the 2nd dot /a/.
    - Tap the 3rd dot /d/.
  - We do: Complete together.
  - You do: Have students complete independently of your voice. Students may take turns. All students should be following along even when it is not their turn to speak.
  - Use with I do, We do, You do. Repeat steps with additional words.

**Kit Materials:**
- Magnetic Board

**Other Materials:**
- Dry Erase Markers

**Syllable Awareness**

**RF.1.3, RF.2.3 (Phonemic Awareness)**

**Compound Words:**
- Classroom, hairbrush, cornbread, airplane, moonlight, popcorn, homework, coastline, proofread, landslide, frostbite, baseball, firefly, doorbell

**Directions:**
Say, “We are going to practice putting two words together to make one word. Once you learn to do this, you will be able to take two words like sun and shine and combine them to make the word sunshine.”

Place a green felt square on the left side of a white board. Place a red felt square on the right side. Use the words dog and house. Touch the green square and say the first word: dog. Touch the red square and say the second word: house. Move the felt squares together and with your fist “stamp” where the felt squares connect while saying the new word: doghouse.

**Kit Materials:**
- Felt Squares

**Alphabet Arc**

**RF.K.1d (Phonics)**

**Directions:**
I do: We are going to practice putting the letters on to the ABC ARC. As we say the sound, Teacher picks up letter and says M /m/. Watch me place the M on the ARC as I say the sound /m/. Teacher places the M on the ARC in the appropriate place.

We do: Everyone picks up the letter M. Everyone say /m/. Everyone places the letter M on top of the letter M on your ARC, as you say /m/. Students place letter as they say the sound.

You do: Ask 1-2 additional students to place letters on the ARC as they say the sound of the letter:
- S /s/ A /a/.

**Kit Materials:**
- Felt Squares

**Other Materials:**
- Alphabet Arc
What’s In Your Name?  
RF.K.1d (Phonics)

• Each student uses the letter stamps to stamp out their name on an index card.
• Working in pairs, each student places their name over a circle in the Venn diagram.
• Select one letter at a time and name it.
• Stamp letters shared by both names in the overlapping area of the Venn diagram. Stamp letters which are unique to just one of the names in the corresponding circle.
• Continue until all letters are named and stamped on the Venn diagram.

Kit Materials:  
• Stamp Set Alphabet

Other Materials:  
• Ink pad
• Index cards
• Venn Diagram

Alphabet Fluency  
RF.K.1 (Phonics)

1. Place the Alphabet Arc (mounted on magnetic board with tape; it helps if the arc is laminated) and set of letters on a flat surface. Place the timer at the center.
2. The student sets the timer for one minute. Chooses a letter, names it (e.g., “S”), and places it on the corresponding letter on the Alphabet Arc.
3. Continues until the timer goes off. Repeats the activity attempting to match all letters in less than one minute.
4. Self-check

Kit Materials:  
• Magnetic Board
• Magnetic Letters
• Timer

Other Materials:  
• Alphabet Arc

Word Chain  
RF.K.3, RF. 1.3, RF.2.3 (Phonics)

Directions
I do: Place selected letter tiles/letter cards in front of students. We are going to make some words together. Point to a name, and say, “You have to make a word.” Students move those letters together to make the word “top.” Then the teacher spell the word. The student writes the word. (left to right, students read the word.)

We do: Everyone gets a name, everyone gets the words. (left to right, students read the word.)

You do: Students change out letters as the teacher directs. Students then read the new words.

Teacher monitors student responses.

Positive Read Correction
Always return to "I do" (modeling) when there is a student error or confusion.

Tips
• Only use one name and letter card at a time.
• Be sure to have students write the word;
• Have students write the word.
• Ask students to reread the word.
• Ask students to write the word.
• Ask students to write the word.

Kit Materials:  
• Letters or Magnetic Board
• Making Words Set

Other Materials:  
• Word Chain List

Word Chain

Word Chain

Other Materials:
• Word Chain List
• Word Chain Document
• Dry Erase Markers
Word Chaining
with 3 or 4 sound boxes

Syllable Split
RF1.3c-e, RF.2.3c, RF.3.3c (Phonics)

Phoneme- Grapheme Mapping
RF.1.3, RF.2.3 (Phonics)

Sound Stampers
RF.K.3a-b, RF.1.3a (Phonics)

Kit Materials:
- Stamp Set
- Alphabet
- Lowercase

Activity Directions:
The teacher will tell the student that she is trying to write some new words but she isn’t sure how to spell the words correctly and needs assistance from the student. The teacher will have a list of words that follow the phonetic skill being worked on by the student. On a piece of paper, the teacher will begin to write the word, leaving the letter that is being worked on blank. Explain to the student that _____ is the letter you are trying to spell but you aren’t sure what sound goes in the blank. Segment the word to identify the missing sound and have the student identify the letter(s) for the sound and stamp it into the blank.

Ex: Teacher: “_____ _____ oun”
Student identifies the sound and writes the sound in the blank. Have the student read the word.

Kit Materials:
- Reading Rod
- Phonics Word-Building Set

Activity Directions: The teacher will review the syllable pattern being taught (closed, VC.CV, open, vowel teams, r-controlled, CVC). The teacher will then produce an assembled Reading Rod containing a word that fits the syllable pattern and model how to read the word and identify the syllable pattern. After identifying the pattern, the teacher will break the Reading Rod into the different syllables.

Ex: motor

Identify the syllable (in this case, open), and split the syllables. Read each syllable separately.

Have the student practice with other Reading Rods.

Review activity: Have students review previously taught syllable patterns by having them break apart Reading Rod words and sorting the syllables into their appropriate rime group.

Challenge activity: Have the student create nonsense words using the syllable combinations and read the word phonetically using the syllable rules.

Kit Materials:
- Sheet Protector

Other Materials:
- Phoneme Graphing Mapping Document
- Word List
- Dry Erase Markers
**Onset and Rime Chunks**

**RF.1.3 (Phonics)**

**I Do:** I am going to make a word using one of these letter rods **b** and the rod with **–ug** on it. Point to each rod and say, the sound for the onset is /b/; the sound for the rime is /ug/. Put them together (click rods together), glide your finger under the word from left to right hand read “bug”. The bug is crawling on the leaf.

Next write the word on the magnetic board as you spell it and then have students to do the same.

Put **b** onset rod aside, use **ug** rime rod to build another word together and write.

**Word Families**

**RF.K.3, RF.1.3 (Phonics)**

Directions: Introduce with the –at family. Have alphabet stamps and ink pad available. Have students identify the picture and slowly sound it out. Then show students that one letter fits in each box. Have them stamp each corresponding letter in the appropriate box. It is advised to do the activity with the students before placing it in an independent work center/station. Words include cat, rat, mat, hat, fat, bat, sat, pat.

**Stamp A Word**

**RF.K.3, RF.1.3 (Phonics)**

Kit Materials:
- Stamp Set Alphabet Lowercase

**Stamp A Word cont.**

Kit Materials:
- Stamp Set Alphabet Lowercase

**Onset and Rime Chunks cont.**

**RF.1.3 (Phonics)**

**We Do:** Make one more word with students following the same procedure.

**You do:** Call students one by one to build word by selecting an onset letter rod, attaching it to the rime, reading the word, using it in a sentence and then everyone spelling and writing the new word on his/her magnetic board.

Once all onset letter rods are used, model reading your list of words from the board and then having students read the words to a partner and/or individually as they are called.
**Mag-Netting Words**
RF.1.3a-c, RF.2.3a-b (Phonics)

**Directions for Activity:**
• Divide the dry erase board into three columns
• Draw a tile from the tile bag and place it in the top, left column
• Draw another tile from the bag and build a word
• Record whether the word is a Real Word or a Nonsense Word
• Once dry erase board is complete, switch with a partner for peer evaluation and discussion
• If a consensus is made, clear the board, choose another tile, and repeat the activity

**Kit Materials:**
- Magnetic Dry Erase Board
- Dry Erase Marker
- Magnetic Letters, Consonant Digraphs, Vowel Digraphs, and Phonogram Tiles

<table>
<thead>
<tr>
<th>ar</th>
<th>Real Word</th>
<th>Nonsense Word</th>
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<tbody>
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<td>art</td>
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<td></td>
</tr>
<tr>
<td>armp</td>
<td>armp</td>
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</tr>
</tbody>
</table>

**Rime Time**
RF.1.3c (Phonics)

**Directions:**
1. Create a long vowel “rime” with letters from the reading rod kit (ex. “ime”).
2. Have students replace the onset to create new words. The student will pronounce the new word and record the answer on a sheet of paper or on the dry erase materials provided in the kit.

**Variation:** Use a timer- Students can compete to see who can create the most new words with the given rime before time runs out.

**Kit Materials:**
- Reading Rods (dry erase optional)

**Punctuation Power**
L.1.2, L.2.2 (Phonics)

**Directions:**
The teacher will prepare sentences for each group. The level of the students will determine which punctuation stamps to use. The student will select a sentence and read the sentence. Then the student will decide which end mark should go at the end of the sentence and choose the corresponding stamp. If the focus is dialogue then the student would be looking for where to place the quotation marks.

**Variation:** The teacher will prepare a paragraph for each student to have to punctuation correctly. The paragraph would contain no punctuation marks and the students would have to read closely to decide where end marks should be. The teacher could even leave off capital letters and the student could use the Uppercase stamps to correct those errors. A fun way to edit!

**Kit Materials:**
- Punctuation Stamps

**Other Materials:**
- Sentences

**Fluency Procedure**
RF.2.3, RF.3.3 (Fluency)

**Directions:**
The teacher will prepare sentences for each group. The level of the students will determine which punctuation stamps to use. The student will select a sentence and read the sentence. Then the student will decide which end mark should go at the end of the sentence and choose the corresponding stamp. If the focus is dialogue then the student would be looking for where to place the quotation marks.

**Variation:** The teacher will prepare a paragraph for each student to have to punctuation correctly. The paragraph would contain no punctuation marks and the students would have to read closely to decide where end marks should be. The teacher could even leave off capital letters and the student could use the Uppercase stamps to correct those errors. A fun way to edit!

**Kit Materials:**
- Sand or Digital Timer

**Other Materials:**
- Phrases or Passages
High-Frequency Syllable Speed Drill RF.2.3, RF.3.3 (Fluency)

Kit Materials:
- Sand or Digital Timer

Other Materials:
- High Frequency Syllables

Fast Phrases RF.2.4, RF.3.4 (Fluency)

Kit Materials:
- Sand or Digital Timer

Other Materials:
- Phrases

Grammar Sort L.3.1 (Vocabulary)

Sort the words in the Sentence Building Set into the correct category.

Kit Materials:
- Magnetic Sentence Building Set

References & Resources

Sort the words in the Sentence Building Set into the correct category.

Kit Materials:
- Magnetic Sentence Building Set
APPENDIX E: RESEARCH STUDY RECRUITMENT LETTER TO PRINCIPALS
Research Study Recruitment Letter to principals

Dear Colleague,

My name is Barbara Trivelli-Bowen, NBCT, a doctoral candidate for Teacher Education at the University of Mississippi. I am writing my dissertation entitled *The Impact Literacy Coaches Have on Teacher Competency to Increase Literacy Levels for Kindergarten through Third Grade Students in Mississippi’s Lower-Performing Schools*. The issue I want to investigate is whether the Mississippi Department of Education’s literacy coaches are making an improvement in reading for students in Kindergarten through third grade. I am looking for data from schools that have NOT had and HAVE HAD literacy coaches in the school year 2015-2016. I can make arrangements to pick up data if needed.

I would like to analyze:

1. Early Literacy STAR/STAR Growth Report, grouped by teachers, that was administered during the 2015-2016 school year (pretest and posttest). Please state if you have or do not have a MDE literacy coach.

This information will be confidential and the name of schools, teachers, and students will not be revealed.

This information may be very important for the Mississippi educational system when legislators must make decisions that will impact our students. Your assistance in the data gathering process is greatly appreciated. Please contact me if you have any questions.

Thank you,

Barbara Trivelli-Bowen, NBCT
Department of Teacher Education
University of Mississippi
<table>
<thead>
<tr>
<th>Student</th>
<th>Class</th>
<th>Teacher</th>
<th>Grade</th>
<th>Test date</th>
<th>SGP</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander, Shaun</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
<td>4</td>
<td>09/15/14</td>
<td>210</td>
<td>+79</td>
</tr>
<tr>
<td>Armstrong, Elkins</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
<td>4</td>
<td>09/12/14</td>
<td>610</td>
<td>+826</td>
</tr>
<tr>
<td>Carbono, Megan</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
<td>4</td>
<td>09/10/14</td>
<td>287</td>
<td>+4</td>
</tr>
<tr>
<td>Owen, Kenneth</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
<td>4</td>
<td>09/15/14</td>
<td>676</td>
<td>+70</td>
</tr>
<tr>
<td>Carbono, Cathy</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
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<td>09/12/14</td>
<td>461</td>
<td>+103</td>
</tr>
<tr>
<td>Gómez, Karen</td>
<td>Miss Jones' Class</td>
<td>Jones, Karen</td>
<td>4</td>
<td>09/12/14</td>
<td>384</td>
<td>+51</td>
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</table>

*Estimated Oral Reading Fluency is only reported for tests between grades 1-4.

**This student's growth is below the growth target.**

***Student Growth Forecast Time Adjusted Model: Historical data included.***

*Note:* Adapted from “Key report samples: Star Assessments” by Renaissance Learning, 2016, p. 14
APPENDIX F: BEGINNING OF YEAR BENCHMARK REPORT
Note. Adapted from “Key report samples: Star Assessments” by Renaissance Learning, 2016, p. 7
APPENDIX G: END OF YEAR BENCHMARK REPORT
### Grade: 10

<table>
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<th>Test Date</th>
<th>SS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Roberts, L</td>
<td>04/16/2015</td>
<td>500</td>
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<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>625</td>
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</table>

### Intervention

<table>
<thead>
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<th>Student</th>
<th>Class</th>
<th>Teacher</th>
<th>Test Date</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>700</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Smith, K</td>
<td>04/16/2015</td>
<td>753</td>
</tr>
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</table>

### On Watch

<table>
<thead>
<tr>
<th>Student</th>
<th>Class</th>
<th>Teacher</th>
<th>Test Date</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>875</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Smith, K</td>
<td>04/16/2015</td>
<td>889</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Roberts, L</td>
<td>04/16/2015</td>
<td>950</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>978</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Roberts, L</td>
<td>04/16/2015</td>
<td>979</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Smith, K</td>
<td>04/16/2015</td>
<td>980</td>
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</table>

### At / Above Benchmark

<table>
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<th>Teacher</th>
<th>Test Date</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Roberts, L</td>
<td>04/16/2015</td>
<td>998</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>1035</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Smith, K</td>
<td>04/16/2015</td>
<td>1085</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Smith, K</td>
<td>04/16/2015</td>
<td>1100</td>
</tr>
<tr>
<td></td>
<td>4th Hour English</td>
<td>Hill, S</td>
<td>04/16/2015</td>
<td>1200</td>
</tr>
</tbody>
</table>

*Note.* Adapted from “Key report samples: Star Assessments” by Renaissance Learning, 2016, p. 7
APPENDIX H: COACHING LOG
<table>
<thead>
<tr>
<th>Task Category</th>
<th>Casey Sullivan June 2015</th>
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<tbody>
<tr>
<td>Date</td>
<td>1</td>
</tr>
<tr>
<td>Date</td>
<td>16</td>
</tr>
<tr>
<td>Total Hours 1-15</td>
<td>-</td>
</tr>
<tr>
<td>Total Hours 16-31</td>
<td>-</td>
</tr>
</tbody>
</table>

1. Professional Development

- a. For Coach
- b. Given by Coach
- c. Planning Time
- d. Knowledge Building

2. Coaching

- a1. Observations Pre-K
- b1. Modeled Lessons Pre-K
- c1. Co-Teaching Pre-K
- a. Observations K
- b. Modeled Lessons K
- c. Co-Teaching K
- d. Observations 1st
- e. Modeled Lessons 1st
- f. Co-teaching 1st
- g. Observations 2nd
- h. Modeled Lessons 2nd
- i. Co-Teaching 2nd
- j. Observations 3rd
- i. Modeled Lessons 3rd
- j. Co-Teaching 3rd
- k. Professional Learning Community
- l. Plan/Gather Resources/Conference/PD followup with Coach
- m. Learning/Gallery Walk

3. Student Assessment

- a. Administration of testing
- b. Analysis of gathered data
- c. Recording data analysis results

4. Meeting

- a. Grade Level Meeting
- b. Meeting with Principal/Designated contact
- c. District Meeting
- d. Other

5. Other

- Total Hours 1-15
- Total Hours 16-31

*Total hours should not exceed 8 hours/day or 80 hours per two-week period

Note: Adapted from The MDE “Literacy Coach Handbook” 2016, pg. 24.
VITA

BARBARA TRIVELLI-BOWEN, NBCT

Education

<table>
<thead>
<tr>
<th>Currently</th>
<th>Ed.D Program (ABD), School of Education, University of Mississippi, Oxford, Mississippi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• GPA: 4.0-anticipated graduation date May, 2017</td>
</tr>
<tr>
<td>2001</td>
<td>MA Education, School of Education, Regis University, Colorado</td>
</tr>
<tr>
<td></td>
<td>• GPA: 3.8</td>
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<tr>
<td>1996</td>
<td>BA Psychology, University of Colorado, Colorado Spring, Colorado</td>
</tr>
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<td></td>
<td>• GPA: 3.1</td>
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License

- Mississippi Educator License # 190728. Endorsements in Elementary Education (4-8), Kindergarten – 4 (K-4), Mildly/Moderately Disabilities (K-12), Social Studies (7-12), and Psychology (7-12) [Expires 6/2020]
- National Board Certified Teacher- Literacy Reading-Language Arts/Early and Middle Childhood [Expires 11/2021]

Experience

2014–Present
Professional Development Coordinator/Literacy Coach: University of Mississippi, Oxford, MS

- Develop and deliver a large variety of literacy and English Language Arts professional development for grade levels K-12 throughout Mississippi at the state, regional, and local levels.
- Support kindergarten through third grade teachers in struggling schools with their literacy practices and helped them implement LETRS in their instruction
- Evaluate Review for Proposals at the state level.
- Lead coordinator for the organization of the 3-6 grades exemplary unit development at the state level.
- Organize and format the K-5 grades and 6-12 grades Literacy Focus of the Month Manual.

2006–2014
Department Chair/Teacher, Union County School District: Union County Attendance Center, Myrtle, MS
Developed and implemented an integrated Reading and Social Studies program aligned with Common Core for 5th and 6th graders.

- Fifth Grade Teacher - provided English, Reading, Social Studies, and Science instruction.
- Sixth Grade Teacher - provided English, Social Studies, and Science instruction.
- Seventh Grade Teacher - provided Reading and Writing instruction.
- RTI Assistant Coordinator.

**2002-2006**

**Teacher, Harrison District Two: Harrison Adult and Family Education, Colorado Springs, CO**

- ABE/GED Teacher - prepared adults to earn their GED. Worked with large groups, small groups, and individuals. Skills were improved in Reading, Writing, Mathematics, Social Studies, and Science.
- ESL Teacher – provided instruction to non-English speaking Adults. Lessons focused on speaking, writing, and reading English in a large group atmosphere.

**2000-2002**

**Teacher, Test Administrator, Program Manager, Accountant Sylvan Learning Center, Colorado Springs, CO**

- Worked with academically challenged students, grades K-12+, on several levels. This includes Reading, Beginning Reading, Mathematics, Study Skills, and Academic Writing in order to better prepare them for both public and private education.
- Initial screening and diagnosis of potential and current student, writing and monitoring individualized programs for each student, and computed payroll and W-2’s.

**Peer-Reviewed Publications**

Trivelli-Bowen, B. A., Moore, J. J., & Niemeyer, S. R. Ways to Use Technology to Motivate Students’ Writing. *International Journal of Arts and Commerce* 3(7), 1-11

**Technical Skills**

General skills in word processing and databases interests in:

- Blackboard
- Microsoft Office
- CPS- Student Response System
- Mobie
- Office computing: Excel, PowerPoint
- Statistical software: SPSS
Honors and Awards

2015  Member of Phi Kappa Phi Honor Society

2007  Wal-Mart Local Teacher of the Year Award

2005  ETS Recognition of Excellence Award

Professional Development

2014  LETRS Phase I and II training

2014  Edmodo training

2013  Best Practices in Teaching Online Workshop, University of Mississippi

2012  Classroom management

   Common Core training for Language Arts and Mathematics

2011  Completed National Boards for Professional Teaching Standards Certification

2008  Industry-Education Partnership follow-up with Mississippi State University

   Industry-Education Partnership-one-week professional development with Mississippi State University

2007  Increasing Your Effectiveness as a Reading Specialist or Literacy Coach

   Conflict Management

   Industry-Education Partnership-four-week professional development with Mississippi State University

2006  Mississippi Frameworks

   Understanding by Design

2005  CAEPA/CDA Annual Conference

2004  Lindamood-Bell Professional Development (LiPS)

   CAEPA/CDA Annual Conference

   Lindamood-Bell Professional Development (Seeing Stars)

   National Center for Family Literacy Foundations Training

2003  Harrison District Induction Program

   How to Create a Respectful Workplace

   Differentiation Instruction

   Lindamood-Bell Professional Development (Visualizing and Verbalizing)

   CAEPA/CDA Annual Conference
## Committees/Special Positions

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>2012</td>
<td>Assisted Dr. Lori Wolfe in designing the online tests in Blackboard for EDRS 501 Educational Statistics I</td>
</tr>
<tr>
<td>2008-2013</td>
<td>Reading Fair Coordinator, West Union Attendance Center, Myrtle, MS</td>
</tr>
<tr>
<td>2003-2005</td>
<td>Member of Colorado Adult Education Professional Association (CAEPA)</td>
</tr>
<tr>
<td>2005</td>
<td>Member of the Adult Education Professional Development Advisory Group (PDAG), Colorado Department of Education, Denver, CO</td>
</tr>
<tr>
<td>2005</td>
<td>Developed a student-tracking database to assist with grant reporting, Colorado Springs, CO</td>
</tr>
</tbody>
</table>

## Professional Memberships

- Mississippi Professional Educators