Teachers' Perceptions about the Types, Quality, and Impact of their Job-Embedded Professional Development Experiences

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The University of Southern Mississippi

TEACHERS’ PERCEPTIONS ABOUT THE TYPES, QUALITY, AND IMPACT OF THEIR JOB-EMBEDDED PROFESSIONAL DEVELOPMENT EXPERIENCES

by

Delilah Mitchell

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

December 2013
ABSTRACT

TEACHERS’ PERCEPTIONS ABOUT THE TYPES, QUALITY, AND IMPACT OF THEIR JOB-EMBEDDED PROFESSIONAL DEVELOPMENT EXPERIENCES

by Delilah Mitchell

December 2013

This study was designed to determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship to student achievement in language arts, math, or science. The researcher identified school districts with 50% or more of their eighth grade students scoring proficient or advanced on all three areas of Mississippi’s Curriculum Test, Second Edition (MCT2). Sixty-four eighth grade language arts, math, or science teachers who had been at their current school at least two years completed a questionnaire created by the researcher. Multiple Linear Regression and Pearson’s Correlation were used to analyze data.

Surprisingly, the findings indicated very little participation in content related professional development. Respondents mainly participated in traditional workshops and conferences that took place in their school district. Of all of the types of job-embedded professional development, traditional job-embedded professional development was rated highest in quality and had the greatest impact on student achievement. Respondents rarely participated in non-traditional activities such as interning, coaching, and data teams. As individual variables, participation, quality, and types of job-embedded professional development were perceived to be significant. Yet, when grouped together
and compared to the actual MCT2 scores, a statistically significant relationship was not found in any of the content areas.
The University of Southern Mississippi

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A Dissertation
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of The University of Southern Mississippi
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for the Degree of Doctor of Philosophy

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DEDICATION

I would like to thank God for leading and guiding me through this most difficult and trying process. I would like to dedicate the completion of this Dissertation to the following people:

- My Mother and Grandmother- Without your love, patience, and guidance during the early years, this journey would have never begun. Even though I lost you along the way, I know that you are proud of me!
- My parents, Larry Sr. and Helen Mitchell-Thanks for all of your support and for being a living example of what God can do in one’s life.
- My beautiful daughter, Tiniah-Thanks for being patient and understanding when Mom was being tugged in many directions. I hope that you will understand the hard work and sacrifice it took to make this dream come true.
- My wonderful support system of family, friends, and co-workers- Thanks for all of your words of encouragement.
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This dissertation could not have been completed without the support of my committee members- Dr. Thelma Roberson, Dr. J. T. Johnson, Dr. David Lee, and Dr. Sharon Rouse. I will always remember your patience, willingness to help, and words of encouragement. Special thanks to Dr. Roberson for taking on the great task of mentorship in the middle of this process and seeing it through to the end.
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CHAPTER I
INTRODUCTION

Increased demands in accountability from the No Child Left Behind Legislation (NCLB) has pushed school administrators and leaders to look for ways to improve K-12 education (Desimone, 2011). An analysis of educational resources showed that teachers play an important role in the current system of accountability (Wayne & Youngs, 2003). According to Hochberg and Desimone (2010), teachers are a school system’s principal resource. Both past and present research indicated that a large portion of student achievement depended upon the teachers that students were assigned (Hochberg & Desimone, 2010).

Improved student achievement depends in large part on the quality of teachers and teaching (Hochberg & Desimone, 2010). Teachers have to continually work to increase their knowledge and improve their skills. With this intention, Desimone (2011) suggested that teacher professional development is one of the keys to strengthening educators’ performance levels and improving the quality of teaching in schools in the United States. As a result, professional development has become a common place in schools.

Desimone (2011) defined professional development as a vast array of activities designed to improve the professional knowledge and skills of teachers in order to improve student achievement. Traditional professional development activities include workshops or conferences that took place within a school district, college courses taken for credit, and workshops or conferences that take place outside of a district. Non-traditional professional development activities include internships, mentoring, resource centers, teacher study groups, and teacher collaboratives, networks, or committees.
Darling-Hammond, Wei, Andree, Richardson, and Orphanos, 2009; Desimone, Porter, Garet, Yoon, & Birman, 2002). Teachers learn by doing, reading, and reflecting; collaborating with other teachers; looking closely at students and their work; and sharing what they see (Darling-Hammond & McLaughlin, 2011). Participating in professional development activities allows teachers to incorporate what they learned into their daily teaching practice.

According to Mizell (2010), professional development was most effective when it took place during the course of a teacher’s daily work schedule and involved teachers from the same school, department, or grade level (Opfer & Pedder, 2011). Job-embedded professional development (JEPD) was mostly school or classroom based and incorporated into the workday. It was centered on participating teachers’ day-to-day operations and designed to improve teachers’ instructional practices in order to improve student learning (Croft, Coggshall, Dolan, Powers, & Killion, 2010).

Professional development has been shown to be an effective agent in changing teacher learning and teacher practice (Opfer & Pedder, 2011). Research (Croft, Coggshall, Dolan, Powers, & Killion, 2010; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011) described what should be done in order to provide quality professional development. In addition, those research studies identified the critical characteristics of effective professional development in hopes on influencing current professional development activities. A consensus exists in the literature that professional development activities should include certain components in order for changes in instructional practices to occur. These components included active and collective participation, duration, a content focus, as well
as coherence (Croft et al., 2010; Darling-Hammond et al., 2009; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011).

In an era of high-stakes testing and standards-based teaching, it was critical that school leaders identify, implement, and evaluate effective professional development activities for teachers (Batty & Franke, 2008; Cankoy & Ali-Tut, 2005). Professional development activities, according to Torff and Barnes (2011), should be content-focused and aligned with the goals and needs of the school or school district. In addition, school districts should provide professional development activities that are continuous and periodically evaluated (Torff & Byrnes, 2011).

Guskey (2000) focused on the importance of evaluating professional development. The purpose of evaluating professional development activities was to gauge the quality, determine the value of the activity, and to indicate areas of needed improvement (Guskey, 2000). Because substantial amounts of money are spent on professional development at the local, state, and federal levels, educational stakeholders want to know if the increased financial investments in professional development are paying off in improvements on state tests (Desimone, 2009). Teachers, as well, are interested in knowing if professional development makes their work more effective and whether improvements in student learning justify the need to make changes (Guskey, 2000).

Statement of the Problem

Many education reforms have relied on teacher learning in hopes that improved instruction and increased student learning will follow (Mizell, 2010). Over the last
twenty years from 1993 to 2013, school improvement movements, accountability, and the implementation of NCLB (2002) have produced an increased interest in professional development (Colbert, Brown, & Choi, 2008; Desimone, 2011; Wayne & Youngs, 2003). Since 2010, most states have required a predetermined number of professional development days as a part of the normal academic year (Mississippi Department of Education [MDE], 2010). Even though professional development was very common in most school systems, professional development opportunities differed in types and quality from one school district to another (Torff & Byrnes, 2011).

Professional development activities that have the closest link to increased student achievement should be offered by district leaders (Bredeson, 2002). School districts spend large sums of money on the planning and delivery of professional development activities for the teaching staff (Bredeson, 2002). The demand for accountability makes it imperative that school funds be spent wisely. Therefore, it was very important that those school and district leaders in charge of professional development pay close attention to the needs of their staff.

Guskey (2002) suggested that having an evaluation plan in place was the most critical component of planning and maintaining an effective professional development system. In order to serve the needs of the staff, leaders should evaluate the impact of professional development activities on the professional growth of teachers, the effectiveness of classroom instructional practices, and improvements in student learning (Bredeson, 2002). Evaluation of professional development activities add to the overall value of professional development and its effect on teaching and learning.
Purpose of the Study

The purpose of this study was to determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they participated in and its relationship to student achievement in language arts, math, or science. The characteristics of professional development evaluated for this study were content focus and design-traditional and non-traditional. Student achievement was measured by Mississippi’s Curriculum Test, Second Edition (MCT2) in the areas of Language arts, math, and science. MCT2 was part of the statewide testing program at the time of the study.

Research Questions

The research was guided by the following questions:

RQ1: What are teachers’ perceptions of their participation in job-embedded professional development?

RQ2: What are teachers’ perceptions of the quality of the job-embedded professional development in which they have participated?

RQ3: What are teachers’ perceptions of the impact of the job-embedded professional development in which they have participated?

RQ4: What is the relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 Language arts, math, or science scores of eighth grade students?
Research Hypotheses

The following hypotheses were tested:

H\textsubscript{1}: There will be a significant relationship between teachers’ perceptions of their participation in traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement.

H\textsubscript{2}: There will be a significant relationship between teachers’ perceptions of the quality of traditional and non-traditional job-embedded professional development and perceptions of the impact on student achievement.

H\textsubscript{3}: There will be a significant relationship between teachers’ perceptions of the impact of traditional and non-traditional job-embedded professional development and perceptions of the impact on student achievement.

H\textsubscript{4}: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 English/language arts scores of eighth grade students.

H\textsubscript{5}: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 Math scores of eighth grade students.

H\textsubscript{6}: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 Science scores of eighth grade students.

Definition of Terms

The following terms were used in the study and were defined for clarity:

*Accountability label:* A label assigned to a district or school based on the school’s performance on the end-of-the-year state assessments. The following seven
accountability labels are used by MDE: Star School, High Performing, Successful, Academic Watch, At Risk of Failing, Low Performing, and Failing (MDE, 2010).

*Advanced*: Performance level that describes students that consistently perform above what was required by the grade-level content standards (MDE Office of Student Assessment, 2011).

*Basic*: Performance level that described students that were able to master some of the content that was required by the course content standards (MDE, 2011).

*Competency*: A broad statement of the skills that students were expected to have in order to correctly answer questions on the end of the year state assessments (MDE, 2011).

*Grade 8 Science Assessment*: Criterion-referenced assessment given in grades 5 and 8 that was aligned with the 2010 Mississippi Science Framework (MDE, 2011).

*Impact of Professional Development*: For the purpose of this study, the definition will be guided by participants’ perceptions of impact. No attempt was made to define impact for participants prior to the study.

*Job-embedded professional development (JEPD)*: Professional development that happened on the job. It occurs at the school during the school day, immediately at the end of the school day, or on designated professional development days. It was sponsored by the participants’ school district (Mizell, 2010). JEPD consists of grade-level, departmental, and teams of teachers engaging in interactive, integrative, and practical work. JEPD includes activities such as mentoring, coaching, lesson planning, action research, peer observation, and examination of student work (Croft et al., 2010).
Minimal: Performance level that described students that were not able to master the content required for the basic performance level (MDE, 2011).

Non-traditional Professional Development: Term that described professional development activities such as internships, mentoring, resource centers, teacher study groups, and teacher collaboratives, networks, or committees (Desimone et al., 2002).

Professional Development: Vast array of activities designed to improve the professional knowledge and skills of teachers in order to improve student achievement (Desimone, 2011).

Proficient: Performance level that described students that consistently performed at the level required by the grade-level content standards (MDE, 2011).

Quality of Professional Development: For the purpose of this study, the definition will be guided by participants’ perceptions of quality. No attempt was made to define quality for participants prior to the study.

Standardized Tests: Tests that were administered and scored in a uniform method. The test questions, scoring measures, and analysis were consistent and administered in a standard approach (Dowling, 2008).

Mississippi Curriculum Test, 2nd Edition (MCT2): Part of the Mississippi Statewide Assessment Program used during the time of this study. MCT2 is administered to students in grades 3 through 8 and measures student achievement on the 2006 Mississippi Language Arts Framework-Revised and the 2007 Mississippi Mathematics Framework-Revised (MDE, 2011). For the purposes of this study, school level eighth grade MCT2 scores were used.
Self Efficacy: A person’s belief about his or her own capabilities of producing a desired result in performance. It determines a person’s cognitive thinking, feelings, and self-motivation (Desimone, 2009)

State Frameworks: A collection of objectives, competencies, and instructional interventions that teachers were expected to use in order to prepare students for the state end-of-the-year assessments (MDE, 2010).


Traditional Professional Development: Term used to describe professional development activities such as workshops or conferences that took place within a school district, college courses taken for credit, and workshops or conferences that took place outside of a district (Desimone et al., 2002).

Delimitations

The following delimitations were imposed upon this study: 1) the study was limited to the Spring 2012 MCT2 scores of eighth grade students in language arts, math, and science, 2) the study was limited to public schools districts in which 50% of their eighth grade students scored proficient or advanced on all three areas language arts, math, and science of MCT2, 3) the participants were limited to teachers who taught eighth grade Language arts, math, or science during the 2011-2012 school year and 4) the study was limited to the responses obtained from the questionnaire used to survey teachers.
Assumptions

The following were assumptions for this study: 1) the list of public middle schools provided by MDE was accurate, 2) the list of school ratings for the 2011-2012 school year provided by the MDE was accurate and complete, 3) students received the appropriate instruction on the competencies and objectives in eighth grade language arts, math, or science as outlined in the Mississippi Curriculum Frameworks, 4) test data reported on the MDE’s Website was accurate, and 5) the teachers’ responses to the questionnaire were honest and accurate.

Justification

A consequent turbulent political atmosphere at the national level has raised the stakes in school accountability. Individual states are now required to do more to improve education and learning (The White House, Office of the Press Secretary, 2011). Test scores are used to make important decisions related to all stakeholders in school systems such as students, teachers, principals, superintendents, and school board members. Researchers are continually trying to explain why some schools are more effective than others and find ways to improve academic performance at low-achieving schools (White House, Office of the Press Secretary, 2011).

According to Torff and Byrnes (2011), effective professional development is necessary for teachers to improve teaching and learning. In order for teachers to be as effective as possible, they must continually work to improve their knowledge and skills (Mizell, 2010). Kukla-Acevedo (2009) suggested that individual teachers independently affect students’ test scores and other outcomes. Therefore, some teacher qualities are important for student learning.
Because of the potential benefits of professional development, studies provide educational researchers and educational administrators with a better understanding of the relationship between professional development and student outcomes (Batty & Franke, 2008). Although well intended, many reform efforts have neglected to consider the professional development needs of teachers necessary for new practices to be successfully implemented. Recent reform efforts have led to practices that require teachers to change their pedagogy such as increasing their facilitation of classroom discussions and guiding students to learn with greater levels of understanding (Batty & Franke, 2008). Teachers are encouraged to become more interdisciplinary, taking practices from one context and applying them in different academic and social settings (Batty & Franke, 2008).

Admittedly, the demands on teachers are great. According to Darling-Hammond et al. (2009), teachers in the United States spend almost 80% of their time at work engaged in classroom instruction, as compared to about 60% of teachers in other nations. Other nations have made teacher support and teacher learning a top priority, and they have seen promising results. In those countries, students learned and achieved more. Teachers in those supported countries stayed in the field longer and were more satisfied with their work (Darling-Hammond et al., 2009).

According to Darling-Hammond and McLaughlin (2011), professional development activities are used to increase teacher efficacy and impact student learning. Darling-Hammond and McLaughlin (2011) also suggested that professional development was not effective unless it caused teachers to improve their instruction or caused administrators to become better school leaders. Unfortunately, Desimone et al. (2002)
suggested that most district-supported professional development activities did not have the components necessary for high quality activities. In professional development, this means that the design, delivery, and intended outcomes of learning activities are not serving the interests of its clients.

State education agencies and school districts have restructured the staffs at thousands of schools labeled as failing (Darling-Hammond et al., 2009). Therefore, school districts are now attempting to attract better talent into classrooms by recruiting career changers and liberal-arts graduates who have lots of content knowledge and an eagerness to teach (Darling-Hammond et al., 2009). Though, no matter what states and school districts do to strengthen the education workforce, they need to do more to enhance the quality of the teachers they already have (Darling-Hammond et al., 2009).

One key structural support for teachers engaged in professional learning was the allocation of time during the work day and week to participate in professional development activities (Darling-Hammond et al., 2009). Effective job-embedded professional development should be a key part of districts’ long-term planning for teacher development (Darling-Hammond et al., 2009). If teachers sense a disconnect between what they are taught to do in a professional development activity and what they are required to do according to local curriculum guidelines, the professional development tends to have little impact (Darling-Hammond et al., 2009). The ultimate goal of teacher professional development should be to improve teacher instructional practices which may lead to increased student achievement (Croft et al., 2010).
Summary

Professional development is a key component in improving teacher practice (Darling-Hammond & McLaughlin, 2011). Even so, several key components are necessary for professional development to be beneficial to those that participate (Darling-Hammond & McLaughlin, 2011). This study gives educators and educational decision-makers more data related to professional development from the teachers’ perspective. This study analyzed teachers’ perceptions of the impact, quality, and types of professional development activities in which they have participated and its perceived relationship to student achievement. The results of this study may be helpful to school leaders when making decisions about future professional development endeavors in their schools.
CHAPTER II

REVIEW OF RELATED LITERATURE

Increased demands in accountability from the No Child Left Behind Act included high standards, curriculum frameworks, and new approaches to assessment aligned to those standards (Desimone, Smith, & Ueno, 2006). Teachers have had to make adjustments in order to follow along with the ever-changing demands of state assessments, limited funds, and a challenging classroom environment. Teachers have had to make changes to their teaching practices in order to meet new expectations for teaching and student performance (Cuban, 2007). Yet, Desimone et al. (2006), suggest that many teachers were not prepared to implement new teaching practices based on these high standards.

In order for teachers and school leaders to be as effective as possible, they must continually work to increase their knowledge and skills (Desimone, 2011). Teacher professional development is now at the center of school improvement efforts. It is one of the largest monetary investments in school reform (Finance Project & Public Education Network, 2004). Millions of dollars have been spent on professional development by the U.S. Department of Education, the National Science Foundation, state educational agencies, and local school districts (Desimone et al., 2006).

Previous research described what should be done in order to provide quality professional development (Croft et al., 2010; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011). In addition, that same research showed that professional development programs were criticized and rated low in quality. Such programs have been criticized for not being research based,
lacking a connection to real classrooms, frequently taught by unqualified professionals, and presented in ways that minimized teacher involvement (Torff & Byrnes, 2011). Even with the abundance of available research on effective professional development, school districts continue to offer professional development opportunities that differ in types and quality.

The review of literature contains information from various sources that was presented in the following seven sections: 1) Theoretical Framework, 2) Defining Professional Development, 3) Accountability Leading to the Focus on Professional Development, 4) Types of Professional Development, 5) The Need for Professional Development, 6) Characteristics to Effective Professional Development, and 7) Evaluating Professional Development.

Theoretical Framework

The relationship between theories of learning and educational practices is being explored. According to Denier, Walters, and Benzon (2006), schools and educational practices are more likely to be based on philosophical beliefs than on experimental studies and theoretical understanding of learning. Schools are established according to different community and cultural beliefs about the world, the nature of humankind and children. Schools also often differ in their beliefs about teaching and learning (Denier et al., 2006). Every educational system and instructional program contains a theory of learning (Denier et al., 2006).

Social Cognitive Theory (SCT) refers to a psychological model of behavior that began primarily from the work of Albert Bandura. It originally focused on acquiring social behaviors. SCT learning occurs in a social context and that much of what was
learned was gained from observation. SCT has been used extensively by those interested in understanding classroom motivation, learning, and achievement learning (Denier et al., 2006).

SCT was based upon several basic assumptions about learning and behavior. Denier et al. (2006) asserted that the following core concepts can be used to define social cognitive theory:

1. People learn by observing others not just through their own experiences.
2. Learning can modify behavior, but people do not always apply what they have learned.
3. People are more likely to follow the behaviors modeled by someone with whom they can identify.
4. The degree of self-efficacy that a learner possesses directly affects his or her ability to learn. Self-efficacy was a belief in one’s ability to achieve a goal. If it is believed that new behaviors can be learned, more success will come from doing those things.

Accountability Leading to the Focus on Professional Development

The American education system was once thought of as the model in which all other countries desired to follow (National Aeronautics and Space Administration [NASA], 2007). Surprisingly, shortfalls in the American education system were spotlighted when Americans were not the first to explore space. The launch of Sputnik I in 1957 by the Russians surprised and shocked the United States (NASA, 2007). The United States government then began to increase spending in the areas of scientific research and education. In order to level the playing field and further address the
problem of inequality in education, Congress enacted the Elementary and Secondary Education Act of 1965 (ESEA) (Congress of the U. S., Washington D. C. Senate Committee on Labor and Public Welfare, 1965). The law consisted of five titles and provided funding to most of the nation’s public and parochial schools. ESEA, subsequently, changed the federal government’s role in education (Wolff, McClelland, & Stewart, 2010). Prior to the law’s passage, educational decision making had been the sole responsibility of individual states.

In 1983, National Commission on Excellence in Education investigated the strengths and weaknesses of public education in the U.S. and published the Nation at Risk Report. The Commission assessed the quality of teaching and learning in U.S. schools and compared U.S. schools and colleges with those of other advanced nations. The Nation at Risk Report attempted to bring about reform of the U.S. educational system and renew the nation’s commitment to schools and colleges (National Commission on Excellence in Education, 1983). More importantly, the Commission cited three facts about the use of time by American schools and students: 1) American students spent less time on school work, 2) time spent in the classroom and on homework was often used ineffectively, and 3) schools were not doing enough to help students develop study skills (National Commission on Excellence in Education, 1983).

The Goals 2000: Educate America Act (Goals 2000), signed into law in 1994, took a more unifying approach to accountability (U. S. Department of Education, 1996). Goals 2000 was based on the concept that students would achieve more when more was expected of them (U. S. Department of Education, 1996). Goals 2000 established a framework to identify academic standards, measure student progress, and provide support
to students in order to meet those standards. Goals 2000 organized the original education goals relating to school readiness, school completion, student academic achievement, leadership in math and science, adult literacy, and safe and drug-free schools (U. S. Department of Education, 1996).

Goals 2000 also included goals to encourage teacher professional development and parental involvement (U. S. Department of Education, 1996). Those goals included teachers, administrators, and the community having common expectations for education. Teachers must also be given access to programs that will improve their professional skills in order to better prepare students in the United States’ public schools. Performance standards and content should be clearly defined. Lastly, standards should be set as to what students should know and be able to do (U. S. Department of Education, 1996).

Goals 2000 focused improvement efforts by setting high expectations and high achievement results for all students (U. S. Department of Education, 1996). This focus on results was known as Standards–Based Education Reform. Standards-Based Education Reform focuses on setting high academic standards and establishing measurable goals to improve individual education reform (Cankoy & Ali-Tut, 2005). Standards-Based Education Reform seeks to drive changes in teaching and learning. Several other events continued the Standards-Based Education Reform Movement.

In 2002, President George W. Bush signed into law the No Child Left Behind Act (NCLB). NCLB reauthorized the Elementary and Secondary Education Act in an effort to improve the performance of public schools in the United States by increasing the accountability standards of states, school districts, and schools (U. S. Department of Education, 2002). NCLB required states to develop a program of annual student
assessments in order to receive federal funding. Each state’s program of assessments must be based on state-defined standards in reading and mathematics, be given to all students in grades three through eight, and ensure that all groups of students reach proficiency by 2012 (U. S. Department of Education, 2002).

Prior to the implementation of the No Child Left Behind (NCLB), the education field was slowly moving away from the “top-down, non-collaborative models of professional development” (Colbert et al., 2008, p. 136). Since the implementation of NCLB, there has been a re-emergence of professional development activities. These activities are based upon mandates, scripted teaching, and a lack of follow-ups for compliance by school administrators (Colbert et al., 2008). The authors of NCLB recognized that there were limited opportunities for high quality teacher professional development.

NCLB set requirements for teacher quality and indicated attributes of high quality professional development. Professional development should include activities that do the following:

i. improves teacher knowledge of the academic subjects they teach and allow teachers to become highly qualified;

ii. provides teachers, principals, and administrators with the knowledge and skills needed to prepare students to meet challenging State academic standards and student academic achievement standards;

iii. are high in quality, intensive and classroom focused in order to have a positive classroom instruction;
iv. increases teacher understanding of effective, scientifically based research instructional strategies;

v. are aligned with state academic content standards, student academic achievement, and assessments;

vi. are regularly evaluated for their impact on teacher effectiveness and improved student achievement;

vii. provides instructional training to teach children with special needs;

viii. and includes instruction in the use of data and assessments to guide classroom practices (U. S. Department of Education, 2002, Title IX, Part A, Section 9101A, Item number 34).

Several studies (Croft et al., 2010; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011) have sought to identify the critical characteristics of effective professional development in hopes of influencing current professional development activities. The characteristics of effective professional development that appeared the most in the literature (Croft et al., 2010; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011) were those that helped teachers develop a deeper understanding of academic content and student learning. Effective professional development builds on content knowledge by establishing well-defined objectives that enhance pedagogical knowledge (Colbert et al., 2008). In addition, effective professional development encouraged teachers to collaborate, utilize strategies that can be used with their students, and provided opportunities to assess their own competence (Colbert et al., 2008).
Successful models of professional development can take many forms. Colbert et al. (2008) listed workshops and seminars as traditional professional development activities. Since 2008, new models of professional development such as mentoring, peer observation and coaching, networking, and collaborative work have emerged. New models also include models of school-based planning and development guided by the principal but produced and implemented by a team of teachers (Colbert et al., 2008). When teachers collaborated, research indicated an increase in their academic content knowledge and increased student performance (Colbert et al., 2008).

When teachers participated in professional development at their schools, they may be able to share and learn from their colleagues. Teachers were also good supports for one another and held each other accountable for applying what they learned (Mizell, 2010). School-based professional development helped educators analyze student achievement data during the school year to identify learning problems immediately and apply solutions to address students’ needs (Mizell, 2010).

State Departments of Education and public school districts in the United States have begun to recognize and respond to the need to provide better support for teachers (Darling-Hammond et al., 2009). Nations, such as China, that outperform the United States on international assessments invest heavily in professional development and incorporate time for sustained teacher development and collaboration into teachers’ work hours (Darling-Hammond et al., 2009). American teachers spend much more time teaching students and have significantly less time to plan and learn together, and to develop high quality curriculum and instruction than teachers in other nations (Darling-Hammond et al., 2009).
Since the passage of the No Child Left Behind Act (2002), school effectiveness has become an important concern of researchers and policymakers (Rumberger & Palardy, 2005). Student test scores are used to measure school effectiveness and are thought to provide a direct measure of student learning (Rumberger & Palardy, 2005). Through the analysis of these scores, researchers have tried to explain why some schools are more effective than others. Policymakers have been trying to find ways to improve performance of low-achieving schools (Vogler, 2008). All states have begun annual testing of students to measure adequate yearly progress (AYP) of schools and districts in meeting state defined standards.

The results of these assessments are then used to measure how successfully schools and school districts have met state defined standards (Tuerk, 2005). According to the MDE (2010), information concerning district performance is reported to the Commission on School Accreditation on an annual basis. In the fall of each year, performance classifications are assigned to each school within the state of Mississippi. The performance classification was based upon achievement, growth, and graduation rate. The performance classification assigned to a school or school district was determined by the percentage of students performing at a criterion level of minimum, basic, proficient, or advanced and the extent to which student performance has improved over time. Schools may be assigned one of the following performance classifications: Star District/School, High Performing, Successful, Academic Watch, At-Risk of Failing, Low-Performing, and Failing (MDE, 2010). Schools and school districts that fail to make AYP toward statewide goals will be subject to improvement, corrective action, or restructuring measures in order to get them back on course to meet statewide goals.
In Mississippi, MCT2 was used to address this requirement at the time of this study.

In September 2011, President Barak Obama’s administration proposed an extensive revamping of the No Child Left Behind Act of 2001. The administration’s proposal provided states with “more flexibility to meet high standards” (White House, Office of the Press Secretary, 2011, p. 3). States that agree to reform schools that are not performing successfully and evaluate teachers more rigorously can seek waivers in order to avoid certain provisions of the original law. States that meet the requirements for the waivers will be allowed to design their own school accountability systems. It was hoped that the availability of waivers will encourage states to raise academic standards, discontinue the use of labels to identify failing schools, and place more emphasis on turning struggling schools around (White House, Office of the Press Secretary, 2011).

The intended goal of accountability measures was improved student achievement (Hochberg & Desimone, 2010). Whenever necessary, several small steps should be taken in order to accomplish the goal of improved student achievement. Professional development must place an emphasis on the content to be taught and its alignment with state defined standards (Hochberg & Desimone, 2010). Professional development must involve everyone at the school level in order to implement effective instructional practices and address the needs of all students (Hochberg & Desimone, 2010). Finally, professional development must consistently provide teachers with opportunities to learn new concepts and practices (Hochberg & Desimone, 2010).
Defining Professional Development

As pressure for higher test scores mount, states strive to comply with new federal requirements. The responsibility for raising student achievement falls, ultimately, on teachers (Finance Project & Public Education Network, 2004). Instruction used to be a continuous repeat of structured activities. Now, teachers are expected to demonstrate effective instructional practices in the classroom. Therefore, expectations for student learning have increased and require challenging problem solving situations, in-depth discussions, and extended projects for small groups and individuals (Finance Project & Public Education Network, 2004).

College and university programs are working to provide a wide range of learning experiences necessary for students to become effective teachers upon graduation (Wayne & Youngs, 2003). Although this requirement may be true, traditional teacher training strategies are not fully equipping teachers with the knowledge needed to make this practice a reality (Desimone et al., 2006). According to Darling-Hammond and McLaughlin (2011), teachers’ must see complex subject matter from the standpoint of different learners. Once students graduate, meet their state’s certification requirements, they learn through on-the-job experience.

Teacher professional development plays an integral role in standards-based accountability. According to Mizell (2010), professional development was the main strategy school systems have to change teachers’ practices. The role of professional development has been facilitated by the requirements of the No Child Left Behind Act. The Act required the availability of high-quality professional development for teachers
and designated specific funds for improvements in teacher quality (U. S. Department of Education, 2002).

Therefore, school districts have invested a great deal of their financial resources into teacher professional development (Finance Project & Public Education Network, 2004). Federal, state, and local taxpayer dollars are used to fund professional development for teachers. The federal government requires that 10% of Title I funds for underperforming school be allocated to related professional development (MDE, Office of Federal Programs, 2009). According to Sloane and Kelly (2003), the pressure on school administrators to change practices and improve student achievement has led to some districts investing as much as 6% of their total operating expenses on professional development (Finance Project & Public Education Network, 2004).

In previous decades, professional development participation was voluntary (Hochberg & Desimone, 2010). In some districts, teachers were allowed to choose professional development topics of interest to them. In other districts, professional development topics were chosen by district leaders or school administrators. In fact, national trends show greater participation in professional development activities that are based in the content area in which a teacher teaches (Hochberg & Desimone, 2010). By the spring of 2000, 59% of teachers had participated in content-focused professional development in the previous 12 months (Hochberg & Desimone, 2010). By the spring of 2004, the percentage of teachers that participated in content-focused professional development increased to 83% (Hochberg & Desimone, 2010).

Most teachers, in general, engaged in only the minimum professional development requirements of their state or district (Hill, 2009). In 1999-2000, the
National Center for Education Statistics (NCES) data showed that a little more than 50% of respondents to their survey reported spending a day or less in professional development during the previous year (Hill, 2009). According to Darling-Hammond et al. (2009), teachers usually needed substantial professional development in a given content area (close to 50 hours) in order to improve their skills and their students’ learning. Most professional development opportunities in the United States are much shorter than 50 hours (Darling-Hammond et al., 2009).

To make informed policy and program decisions about professional development, district, and school leaders need to know whether professional development programs are currently reaching the teachers who need them most (Desimone et al., 2006). The federal government, states, districts, and schools are forced to make difficult decisions about the types of professional development it will sponsor. Districts and schools must often choose between serving larger numbers of teachers with less focused and sustained professional development and providing higher quality activities for fewer teachers (Desimone et al., 2002).

The current range of professional development activities provides opportunities for teachers to reflect on their teaching practices. Teachers’ knowledge of the subject taught was one area that directly benefited students (Firestone, Mangin, Martinez, & Polovsky, 2005). They were able to strengthen their knowledge-base through professional development focused on relevant content matter and organized with a logical goal in mind (Firestone et al., 2005). Professional development experiences range in design from direct instruction in specific practices to inquiry-based formats driven by the individual needs of teachers (Hochberg & Desimone, 2010). Some activities target
individual teachers and other activities target groups of teachers. Activities can range from formal, structured lectures on teacher work days, workshops, conferences, college courses, and special institutes. Professional development activities range in duration from brief, one-time workshops or meetings to multiyear endeavors.

More than 90% of teachers in the United States have participated in professional development that consisted primarily of short-term conferences or workshops (Darling-Hammond et al., 2009). Fewer teachers (36%) participated in other forms of traditional professional development such as university courses related to teaching (Darling-Hammond et al., 2009). Similarly, the percentage of teachers who visited classrooms in other schools dropped from 34% to 22% from 2000 to 2004 (Darling-Hammond et al., 2009).

Professional development opportunities can offer a wide variety of content. According to Firestone et al. (2005), professional development that focused on several different topics did not help teachers accumulate enough in-depth knowledge to support the wide-ranging changes required to meet new standards of effective teaching. In addition, professional development that did not come in a form that was useful in the classroom also did not help teachers.

When teachers evaluated professional development, teachers gave relatively high marks to content-related learning opportunities with 59% of teachers saying that the training was useful or very useful (Darling-Hammond et al., 2009). On the 2003-2004 National Schools and Staffing Survey (SASS), 57% of teachers reported receiving no more than 16 hours (two days or less) of content related professional development during the previous 12 months. Twenty-three% of teachers reported they had received at least
33 hours (more than 4 days) of content related professional development (Darling-Hammond et al., 2009). Still, less than half of the respondents found the professional development they received in other areas to be of much value (Darling-Hammond et al., 2009).

Methods of teaching are another type of content focus for professional development. With more recent emphasis on content knowledge, non-subject specific teaching strategies have taken a back seat to subject-specific teaching practices (Firestone et al., 2005). Professional development should be rich in ideas and materials. As a result, Firestone et al. (2005) suggested that teachers need examples, materials, and activities to use with students.

A third kind of content for professional development focuses on understanding students with special needs. These activities focus on cultures of specific ethnic groups and issues related to students with learning disabilities that may require differentiated instruction (Firestone et al., 2005). Learning opportunities that model the instructional approaches teachers are expected to use are more effective (Firestone et al., 2005). Learning opportunities includes role-playing and problem solving as learning experiences for teachers. Such learning was partly situated in the classroom and refers to students’ actual work (Firestone et al., 2005).

In recent times, schools and districts are struggling to meet federal and state mandates with limited funds. According to Dowling (2008), it has been overly observed that school districts, administrators, and teachers should be able to show that money has been correctly invested. The decisions that district leaders and school administrators make affect the delivery of professional development, make a considerable difference to
teachers working there, and influences the way teachers approach instruction (Firestone et al., 2005). According to Firestone et al. (2005), the results of professional development can be assessed through techniques such as surveys, tests, observations, video recordings, and interviews.

Individual’s or school’s performance on standardized tests shows whether or not there was a good return on the investment. Policymakers use this information to compare students to other students and schools to other schools. This comparison of schools, however, does not consider the existence of factors that affect these outcomes (Vesley & Crampton, 2004). Concern for risk factors and their effect on academic achievement has legislatures trying to figure out ways to provide additional funding for at-risk students. Vesley and Crampton (2004) defined at-risk students as those “who, through no fault of their own, are at risk of low academic achievement and dropping out of high school before completion” (p. 112). The most frequently cited risk factors were poverty, race or ethnicity, limited English proficiency, poorly educated parents, single parent status (Toutkoushian & Curtis, 2005). These factors are beyond the schools’ control but are related to student outcomes.

Mizell (2010) also stated that professional development may lead to the following results: teachers learn new information and skills due to their participation, teachers, in turn, use what they learn to improve teaching and learning, and an increase in student learning and achievement is measured. Effective professional development includes the following: content focus, active learning, coherence, duration, and collective participation (Wolff et al., 2010). The final test of effectiveness of professional development is whether it has led to improved student learning.
Types of Professional Development

Teachers participate in many different types of professional development activities over the course of their careers. Desimone et al. (2002) classified three types of activities as traditional in form: workshops or conferences that take place within a school district, college courses taken for credit, and workshops or conferences that take place outside of a district. In addition, Desimone et al. (2002) classified five types of activities as reform activities. Activities listed as reform included internships, mentoring, resource centers, teacher study groups, and teacher collaborative, networks, or committees.

Workshops and conferences have been and continue to be major sources of teacher and administrator professional development (Colbert et al., 2008). They provide ideal settings for professional educators to increase awareness of issues, exchange ideas, and establish meaningful networks (Bredeson, 2002). In 2003-04, almost all teachers in the United States (92%) reported participating in workshops, conferences, or other training sessions over the previous 12 months (Darling-Hammond et al., 2009).

For years, colleges and universities have provided a vast array of teacher professional development opportunities through graduate programs, summer institutes, and clinical experiences (Bredeson, 2002). Offered by small colleges, private vendors, school districts, and other educational agencies, these courses make up a large portion of professional development activities in the United States and many other countries (Bredeson, 2002). According to Darling-Hammond et al. (2009), 36% of teachers reported participating in college courses related to teaching and only 22% reported participating in observational visits to other schools. These courses were designed with features that include limited time required in formal class settings, nearby or on-site
locations, minimal work and assignments outside of class time, and availability on demand.

Job-embedded Professional Development

According to Firestone et al. (2005), district leadership can influence teaching practices using one important pathway—professional development. Districts are also responsible for fostering the development of teachers and for responding to the needs of teachers so that all students receive quality instruction (Firestone et al., 2005). A district plans professional development to meet the needs of the teachers. Leaders at the district level determine what professional development their schools and teachers will receive because the professional development needs of teachers vary within schools (Finance Project & Public Education Network, 2004).

All teachers who work in the school district are required to participate in district-mandated professional development activities. Learning during the year makes it easier for educators to apply what they learn immediately within their workplaces so that students benefit immediately (Mizell, 2010). Without incentives, teachers are not likely to participate in the professional development available to them (Finance Project & Public Education Network, 2004).

School districts ongoing commitment to teacher professional development has led to the development of various scheduling and staffing techniques that will enable teachers to work collaboratively inside and outside of school (Colbert et al., 2008). School districts have had to become flexible when scheduling times for teacher professional development (Colbert et al., 2008). Some systems design school-based professional development so that most learning happens at the building level. More than 75% of the
teachers and administrators reported having scheduled time in the contract year for professional development (Darling-Hammond et al., 2009).

According to Mizell (2010), professional development was most effective when it occurs within the teachers’ daily work schedule. Job-embedded professional development (JEPD) was professional development in which the majority of teacher learning takes place within the schools in which they work. In JEPD, teachers primarily pull from the professional knowledge that exists in their own school and among their colleagues (Croft et al., 2010). Croft et al. (2010), states teachers are the main resource for professional learning in JEPD, which makes successful collaboration key to professional growth.

JEPD may consist of grade-level, departmental, and teams of teachers engaging in interactive, integrative, and practical work through activities such as mentoring, coaching, lesson planning, action research, peer observation, and examination of student work (Croft et al., 2010). In addition, JEPD produces lasting effects when it was in line with state standards, student assessments, and addressed the particular instructional needs of a teacher’s given assignment (Croft et al., 2010).

Croft et al. (2010) listed several formats for job-embedded professional development. Collaborative action research was a reflective process that allows for investigations and discussion as major parts of the research process. Action research was a collaborative activity among colleagues who are trying to solve real world problems experienced in schools, who are looking for ways to improve instruction and who are looking for ways to improve student achievement (Ferrance, 2000). Action Research allows teachers to choose an aspect of their instructional practices to investigate. Action
research also allows participants to address concerns that are closest to them and those in which they have some influence over in order to make changes (Bredeson, 2002).

Teachers record data, analyze data, review theories from the research literature, and draw conclusions about how teaching has influenced learning. The primary intent of action research was to improve the teachers’ immediate classroom instructional practices and spread knowledge across other content areas within the school or beyond (Croft et al., 2010).

Instructional coaching, another type of JEPD, focuses on the technical aspects of instruction. An instructional coach provides ongoing consistent follow-up through the use of demonstrations, observations, and conversations with teachers as they implement new strategies and knowledge (Croft et al., 2010). Instructional coaches, typically, have expertise in the specific subject area and related teaching strategies. Some coaches continue to teach part-time. Some coaches work within the same school as the teachers they are coaching, and others travel throughout the district (Croft et al., 2010).

Another type of JEPD, data teams and assessment development teams, involve teachers meeting together and analyzing results from standardized tests or teacher-created assessments. The teachers work together to discuss what the data tells them about student learning and discuss teaching approaches to improve student achievement (Croft et al., 2010). Teachers also discuss challenges they are facing with presenting the subject matter or with meeting a student’s needs. Teachers may also work on refining assessments in order to gather more useful student data (Croft et al., 2010).

The implementation of mentoring has increased over the past few years due to its inclusion as part of the induction phase for new teachers (Croft et al., 2010). According
to Hill (2009), in 2003-2004, more than two-thirds of public school teachers in the United States with less than five years of experience reported participating in a teacher induction program. Seventy-one percent of teachers reported being assigned a mentor teacher (Hill, 2009). Mentoring may develop into coaching or peer support relationships as teachers gain experience. Best mentoring practices include matching teachers of the same content area, establishing common planning time, and structuring time for further collaboration (Hill, 2009).

Portfolios, another type of JEPD, are a way for teachers to assemble lesson plans, student work, and other materials that are used directly in the classroom. Portfolios can be used to monitor a teacher’s development in a competency area or for reference by other teachers. According to Croft et al. (2010), teachers reported that developing a portfolio was a powerful learning activity. Presentation of portfolios to colleagues at a meeting or with a coach can make portfolios a dominant setting for JEPD (Croft et al., 2010).

Interestingly, professional learning communities allow teachers to work together to examine their instructional practices and discuss new strategies. These new strategies are then tested in the classroom, and results are shared with the entire learning community. As cited in Croft et al. (2010), Hord (1997) listed five attributes of effective professional learning communities: supportive and shared leadership, collective creativity, shared values and vision, supportive conditions, and shared personal practice. Professional learning communities lesson teacher isolation, create shared teacher responsibility for all students, and expose teachers to instructional strategies they did not have previously (Croft et al., 2010).
The quality of JEPD depends in mostly on the skills of JEPD facilitators (Mizell, 2010). Facilitators may be principals or assistant principals, mentors, department chairs, instructional coaches, teacher leaders, subject area specialists, or teachers. In addition to having expertise in instruction, JEPD facilitators should have successful interpersonal and group skills. JEPD facilitators serve as agents responsible for professional learning. They also support teachers in conducting investigations and team collaboration while strengthening the connection between teacher learning and student achievement (Croft et al., 2010).

Characteristics of Effective Professional Development

Hardy (2008) suggested that there were many complex factors affecting how teachers manage the school day. Even so, teachers are still required to maximize student learning even though policy makers have not provided schools with the additional resources necessary to improve schools and test results (McCroskey, 2008). The curriculum has been divided into segments and condensed due to the scheduling of other activities. Teachers feel powerless and cannot change the situation (McCroskey, 2008). They are forced to teach within the constraints or find something else to do. The result was less time, flexibility, teaching, and the loss of professional satisfaction (McCroskey, 2008). This puts additional strain on the teacher, the teaching process and the learning process.

In many occupations, it is relatively easy to calculate worker productivity. Recent research done by Kukla-Acevedo (2009) found that individual teachers effect students’ test scores and other outcomes. According to Leigh (2010), a natural measure of teacher productivity could be the average test scores of the teacher’s students. As a result,
policymakers continue to authorize the use of statewide examinations to hold educators accountable and teachers have the responsibility of preparing their students for state accountability exams (Vogler, 2008). Student’s test scores are positively correlated with consequent educational outcomes (Leigh, 2010). If students are unprepared, severe consequences may be imposed upon the teachers, students, and their school (Vogler, 2008).

Nevertheless, the impact of these examinations on teachers’ instructional practices should concern school administrators (Vogler, 2008). Previous research has shown that teachers changed their instructional practices in response to state accountability examinations (Vogler, 2008). Even so, there was no clear understanding about the nature and intensity of this relationship. Vogler (2008) suggested that factors such as subject and grade level taught, personal beliefs, type of high-stakes test, and professional development also impact instructional practices of teachers.

Quality teachers are the single greatest determinant of student achievement (Finance Project & Public Education Network, 2004). Kukla-Acevedo (2009) looked at the relationship between teacher experience and teacher qualifications to determine whether experience has a positive effect on student achievement. The results from Kukla-Acevedo (2009) suggested that some teacher characteristics are important for student learning. Kukla-Acevedo (2009) found that 40% to 90% of the difference in student test scores can be attributed to teacher quality (Finance Project & Public Education Network, 2004).

Therefore, it was vitally important that teachers be well prepared when they begin teaching. They should continue to improve their knowledge and skills throughout their careers.

As a result of high teacher shortages, the demand for teachers often exceeds supply (Finance Project & Public Education Network, 2004). This was particularly true in low performing schools (Finance Project & Public Education Network, 2004). State certification requirements provide little direction or standards by which principals can judge the pool of prospective teachers (Finance Project & Public Education Network, 2004). Since hiring decisions are made with very little information about the skills of the applicants, school districts and schools must depend on professional development to improve the skills of all teachers (Finance Project & Public Education Network, 2004).

Effective professional development for teachers has been a central feature in educational reform movements. Darling-Hammond and McLaughlin (2011) stated that effective professional development involved teachers as learners and teachers. Effective professional development should begin with an evaluation of the schools needs in terms of student learning and teacher instructional practices (Croft et al., 2010).

In school settings, the professional development needs of teachers and administrators vary because teachers and principals are at different stages in their growth and development (Bredeson, 2002). Therefore, the professional development opportunities offered to them should be as different as the professional learners themselves (Bredeson, 2002). New teachers may be more receptive to new techniques for teaching. New teachers often need continual opportunities to practice, receive feedback on, and experiment with classroom management strategies, instructional
strategies, and new methods of teaching. Veteran teachers, on the other hand, have mastered these aspects of teaching but also need time to reflect on and improve their professional practice (Hochberg & Desimone, 2010).

According to Darling-Hammond and McLaughlin (2011), new approaches to the professional development of teachers are needed. These approaches require new structures and supports. Effective professional development has the following of characteristics:

- It must engage teachers in the actual process of teaching, assessment, observation, and reflection in order to develop the processes of learning and development.
- It must be inquiry based and include participant driven reflections and experimentation.
- It must involve a sharing of knowledge among teachers and focus on the school as a whole.
- It must be connected to student improvement.
- It must be continual and supported by modeling, coaching, and problem solving.
- It must be linked to other aspects of school transformation (Darling-Hammond & McLaughlin, 2011, p. 82).

Several previous studies suggested that professional development experiences that share all or most of these characteristics can have a large, positive influence on teachers’ classroom practices and student achievement (Desimone et al., 2002). Yoon, Duncan, Lee, Scarloss, and Shapley (2007) list three factors that relate professional development
to student achievement. First, professional development improves teacher knowledge and skills. Second, better knowledge and skills improve classroom teaching. And last, improved teaching raises student achievement.

Several reports disputed the contention that effectiveness should be defined by professional development’s impact on improved student learning (Torff & Byrnes, 2011). If one factor is weak or missing, better student achievement cannot be expected (Torff & Byrnes, 2011). If teachers fail to incorporate new ideas from professional development into their daily class routine, students will not benefit from the teacher’s professional development (Yoon et al., 2007). The particular teachers involved, the characteristics of students with whom they work, and aspects of the community can all impact results (Guskey, 2009).

The effectiveness of professional development programs was also influenced by the characteristics of participating teachers, especially their attitudes about these programs (Torff & Byrnes, 2011). Teachers with more positive attitudes about professional development were more likely to have beneficial learning experiences in professional development programs (Torff & Byrnes, 2011). Professional development was not effective unless it caused teachers to improve their instruction or causes administrators to become better school leaders (Mizell, 2010).

Several studies have been conducted that explored the relationship between the characteristics of professional development and changes in teacher attitudes and practices (Desimone et al., 2002; Hochberg & Desimone, 2010). Desimone et al. (2002) identified six key features of professional development that could be effective in improving teaching practice. Three features were described as structural features and included the
type or organization of the activity, the duration of the activity, and the degree to which
the activity emphasized the participation of groups of teachers from the same school,
department, or grade level. The remaining three features were described are core features
and described the extent to which the activity offered opportunities for active learning,
the extent to which the activity promoted coherence in teachers’ professional
development, and the degree to which the activity focused on content (Desimone et al.,
2002).

Hochberg and Desimone (2011) later identified three core features of professional
development activities that positively affected teachers’ change in knowledge, skills, and
classroom teaching practices (Hochberg & Desimone, 2010). Those features were a
content focus, opportunities for active learning, and coherence with other teacher learning
activities. Content focus referred to the degree to which a professional development
activity focuses on a particular subject area. Active learning opportunities referred to the
degree to which professional development activities provided actual opportunities for
teachers to analyze their instructional practices and student learning. Coherence referred
to the degree to which professional development activities were consistent with teachers’
goals, aligned with state standards and assessments, and promoted communication among
teachers about their work (Hochberg & Desimone, 2010).

Desimone et al. (2002) referenced several studies that found that the intensity and
duration of professional development was related to the degree of teacher change.
Research indicated that professional development activities were given higher ratings
when they were continuous and intensive rather than short-term workshops (Torff &
Byrnes, 2011). According to Torff & Byrnes (2011), teachers provided three reasons for
rating professional development activities as more effective when they were content specific, when they could be successfully integrated school’s daily routine, and when it allowed teachers to take leadership roles. These professional development activities also received higher ratings when they were hands-on as opposed to opportunities to sit and listen (Torff & Byrnes, 2011).

Hochberg and Desimone (2010) identified student characteristics as an additional related factor to the effectiveness of professional development. Therefore, an element of the NCLB accountability piece was an emphasis on improving student achievement. Waxman, Lee, and MacNeil (2008) listed reducing the achievement gap between successful and underperforming students as the greatest educational challenge. The achievement gap was usually expressed in terms of differences in graduation rates and the academic achievement between Caucasian students and other ethnic groups of students. Consequently, the ability of professional development to be effective depends upon how well students receive teachers’ instructional practices.

Policies and practices vary substantially from one district to the next. Considerable variation is in the quality of professional development services provided from one district to the next (Torff & Byrnes, 2011). While professional development in many districts painted a grim picture, there were a number of professional development activities that teachers say have helped them in the classroom (Torff & Byrnes, 2011). Also, several professional development activities based on research support differences in retention and student learning (Finance Project & Public Education Network, 2004).

Newstead, Saxton, and Colby (2008) suggested that school leaders throughout the United States practically agree on what it takes to educate all students well. In order to
educate all students, more class time, smaller schools, a college preparatory curriculum, professional development for teachers, and extensive use of data to understand student needs is needed (Newstead et al., 2008). Despite similar student demographics and budget constraints, a few schools report great results while many other schools struggle (Newstead et al., 2008).

School leaders have to make choices about what matters most and then exhaust every possible resource to make that choice work Newstead et al. (2008). Far too often, school leaders get overwhelmed with disciplinary, administrative, operational, and political issues. When discipline issues become overwhelming, little time is left for the most important part of their job-instructional leadership (Newstead et al., 2008). At less successful schools, leaders spend less than one-fourth of their time on student learning, teacher professional development, and school culture.

According to Johnson (2008), the principal’s role is continually changing. The principal is responsible for much more than resources, textbooks, and teachers. The principal’s priority is now instructional leadership (Johnson, 2008). Principals are instrumental in the professional growth of teachers and provide direction in planning and supervising instruction.

According to the Finance Project and Public Education Network (2004), professional development along with a supportive work environment helps to keep teachers in the classroom. A supportive work environment includes a strong principal and leadership team (Finance Project & Public Education Network, 2004). The principal’s role is to support teachers as they try new activities and to provide guidance through supervisory channels (Firestone et. al, 2005). Principals create high expectations
for performance and should ensure that teachers have access to current research on instructional strategies and subject matter content (Wolff et al., 2010).

Evaluating Professional Development

Principals in different situations face different challenges. Research indicated that many leaders of low-performing schools are not effectively responding to the needs of teachers and students in those schools (Waxman et al., 2008). Given their limited resources, professional development dollars need to be spent on teachers who need it the most (Finance Project & Public Education Network, 2004).

Unfortunately, many educators responsible for organizing professional development have had no formal education in how to do so (Mizell, 2010). Professional development funds are being spent on professional development that does not fit the needs of the participating teachers (Finance Project & Public Education Network, 2004). The professional development was often not related to districts’ goals for student achievement. According to Torff and Byrnes (2011), the results of their research showed that there was a need for the design, implementation, and evaluation of professional development activities.

Desimone et al. (2002) reported that many schools and school systems were not examining how well professional development was working because there was not an effective evaluation system in place. No accountability measures for how effective professional development was in helping teachers improve classroom practices exist. For decades, studies of professional development consisted mainly of documenting teacher satisfaction, attitude change, or commitment to innovation rather than its results or the
processes by which it worked (Desimone, 2009). Teachers were usually asked if they enjoyed the training, not how they will use it in their classrooms (Desimone et al., 2002).

Professional development evaluation serves two broad purposes- to better understand professional development so that it can be strengthened and to determine what effects professional development has had in terms of its intended outcomes (Guskey, 2000). According to Guskey (2000), interest in evaluating professional development has increased over the past years for the following reasons:

- Improved evaluation methods have provided teachers with a better understanding of the nature of professional development.
- Recognized professional development as an intentional process. Regardless of the form it takes, professional development is an organized effort designed to bring about positive change and improvement.
- Found a need for better information to guide reforms in professional development and educational programs.
- Increased pressure at all levels of education for greater accountability.

School administrators and teachers can no longer go about doing things without evidence to explain their actions (Guskey, 2000). According to Reese, Gordon, and Price (2004), the teachers’ job is increasing with demands and directives from administrators, central office, and government agencies. As a result, teachers have reported high levels of stress in the face of meeting those demands. Teachers reported that staying on schedule with district instructional pacing guides and preparing students to take high-stakes tests have been key sources of pressure (Reese et al., 2004). Proponents of high-stakes testing consider them to be an effective and efficient means of holding teachers
and administrators accountable for improving academic performance as well as for motivating students to learn. Yet, the majority of teachers surveyed did not believe that high-stakes testing was an accurate measure of students learning or school performance (Reese et al., 2004).

In theory, holding teachers accountable for specific student achievement results was meant to motivate teachers to become more content knowledgeable in order to implement effective teaching strategies (Wolff et al., 2010). Almost every teacher participated in some form of professional learning every year (Hill, 2009). According to Hill (2009), teachers participated in professional development in order to gain new knowledge about content, instructional practices, and individual learners. Teachers also received credits that may lead to salary increases and may be applied toward renewal of their teaching certificate (Hill, 2009).

When measures can be taken to reduce the amount of stress placed on teachers, these measures should be considered and put into place. Unfortunately, Nagel and Brown (2003) concluded that teaching will always involve some stress. New developments have been aimed at improving professional development effectiveness and teachers’ attitudes about professional development. Administrators can not afford to overlook the amount of stress placed upon teachers (Nagel & Brown, 2003).

Some positive aspects are linked to stress. According to Hochberg and Desimone (2010), stress can motivate teachers to explore new instructional strategies, adopt innovative approaches to increasing student motivation, and reflect on their teaching. The pressure of the accountability system has caused schools and teachers to target
professional development hours as a means of improving instruction (Hochberg & Desimone, 2010).

Summary

Educational researchers have worked to identify the characteristics of effective professional development. According to Colbert et al. (2008), current legislation influenced the creation of short term, top-down, and time-consuming activities that do not necessarily lead to successful professional development experiences for teachers or create change in teacher practice. Some research on change in teacher practice suggested that allowing individuals the opportunity to involve themselves in discussion and team collaborative behaviors helps to develop the creation of solutions that can be implemented within the school setting (Colbert et al., 2008).

Colbert et al. (2008) asserted that creating meaningful professional development experiences lies in providing teachers with some decision making authority when it comes to their professional needs. Allowing to teachers this opportunity may be more efficient, provide teachers with the ability to choose the problem, and allow them to identify the best solution to the problem (Colbert et al., 2008). Teachers said that their top priorities for further professional development were learning more content (23%), classroom management (18%), teaching students with special needs (15%), and using technology in the classroom (14%) (Darling-Hammond et al., 2009).

According to Darling-Hammond et al. (2009), teachers in the United States reported that much of the professional development available to them was not useful and there was little professional collaboration in designing curriculum and sharing practices. The collaboration that did occur tended to be weak and not focused on strengthening
teachers’ instructional practices or increasing student achievement (Darling-Hammond et al., 2009). When queried about the impact of the last three years of professional development experiences, less than 25% of teachers reported that professional development affected their instruction (Hill, 2009).

According to Firestone et al. (2005), researchers spoke well of school-based professional development. School districts were the primary designers and presenters of formal professional learning opportunities for teachers. School districts contracted with experts to provide workshops and content specialists to work with teachers. District staff also scheduled and allocated funding for most professional development events. In improving student academic achievement, school leaders are only as effective as their faculty (Croft et al., 2010). The most successful implementation of JEPD occurs when state, district, and school leaders work together to promote a culture of continuous learning for all educators (Croft et al., 2010).
CHAPTER III

METHODOLOGY

Many education reforms have relied on teacher learning and improved instruction to increase student learning (Finance Project & Public Education Network, 2004). Research suggested that sustained and intensive professional learning for teachers was related to student-achievement gains (Darling-Hammond et al., 2009; Guskey, 2000). The purpose of this study was to determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship to student achievement. The characteristics of professional development evaluated for this study included collaboration, content focus, design-traditional and non-traditional, and characteristics of high quality professional development. Student achievement was measured by the Mississippi’s Curriculum Test, Second Edition (MCT2) in the areas of language arts, math, and science.

In this study, the researcher used a questionnaire to survey eighth grade teachers in the state of Mississippi. The questionnaire allowed teachers to identify the types, quality, and impact of their job-embedded professional development participation. This study was approved by the Human Subjects Protection Review Committee (Appendix A) before its onset.

Research Design

To determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship to student achievement as measured by MCT2 in the areas of language arts, math, and science for eighth grade students in a rural southern state, a quantitative
research design was used. The independent variables for this study were teachers’ perceptions of the impact, quality and types of job-embedded professional development. The dependent variables for this study were eighth grade language arts, math, or science test scores. In order to gather background information about teacher participants, demographic data such as gender, race, highest degree, and certification were also gathered.

Participants

The Language arts, math, or science MCT2 scores from the Spring 2012 pencil and paper administration were downloaded from the Mississippi Department of Education’s website. Using this data, the researcher identified school districts in which 50% of their eighth grade students scored proficient or advanced on all three areas (language arts, math, or science) of the MCT2. Teacher participants for this study were eighth grade Language arts, math, or science teachers in the school districts that met the criteria for participation. Teachers also had to have taught at their current school during the 2011-2012 school year in order to participate in this study. Schools and teachers were not identified by name, and the scores of individual students were not used.

Instrumentation

Eighth grade teachers were surveyed in order to collect data about their perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in during the 2011-2012 school year and the relationship to student achievement. The survey was created by the researcher (Appendix B).

Because the test data was from the 2011-2012 school year, a screener question was added to the 40-item survey to ensure that teachers had taught at that school during
that school year. Section I-Your Background included questions 1 through 8. Section I prompted teachers to answer questions related to their background, certification, subject taught, and description of classes. Information from the survey was used to categorize teachers by the content area they teach—English/language arts, math, or science.

Section II-Professional Development Participation included 15 items. Questions 9 and 10 asked teachers to report the number of professional development hours and to report the number of job-embedded professional development hours in which they had participated. Questions 11 through 23 prompted teachers to report their participation in the type of professional development listed by answering yes or no. If they answered yes, they were then asked to describe the quality and impact of the professional development activity. Questions 11 through 13 related to content specific professional development. Questions 14 through 18 related to traditional types of professional development. Questions 19 through 23 related to non-traditional types of professional development. Respondents used the following Likert-type scale to describe the quality of the professional development activity: Poor, Fair, Good, and Excellent. This section also allowed respondents to choose from the following Likert-type scale to describe the impact of the professional development activity: No impact, A small impact, A moderate impact, and A large impact.

Section III-Impact on You included 11 items. Section III prompted teachers to report the impact of their participation in professional development on them and their classroom practices. This section also allowed respondents to use the following Likert-type scale to describe the impact of the professional development activity: No impact, A small impact, A moderate impact, and A large impact.
Section IV- **Impact on Your Students** included 6 items. Section IV prompted teachers to report the impact of their participation in professional development on their students. This section also allowed respondents to use the following Likert-type scale to describe the impact of the professional development activity: No impact, A small impact, A moderate impact, and A large impact.

**Reliability and Validity**

After receiving IRB approval, a pilot study was conducted to determine the validity and reliability of the questionnaire. The group consisted of two eighth grade English/language arts teachers, two eighth grade math teachers, and two eighth grade science teachers. All six participants were from a local school district. Permission to conduct the pilot study was obtained from the Superintendent of the school district as well as the Principal at the participating school. The purpose of the pilot study was to determine whether the directions, questions, and answer choices were understandable to the pilot study participants. The pilot study participants were asked to read the directions, questions, and answer choices very carefully. Pilot study participants were also asked to write down any concerns they had regarding the wording, spelling, clarity, or any other issues which inhibited their understanding of the questionnaire.

After completion of the pilot study, the data was collected and entered into a SPSS data file. The reliability test calculated the instrument’s internal consistency for each of the variables measured. The reliability statistics for Cronbach’s alpha was 0.962 for teachers describing the impact of their participation in professional development activities on them as a teacher (questions 11-34). The reliability statistics for Cronbach’s alpha was 0.979 for the impact of their participation in professional development
activities on their students (questions 35-40). The results indicated that the instrument was statistically reliable, and the questionnaire was used in the study.

The MCT2 scores were collected from the State’s Department of Education website utilized data reliability measures already in place. The State Department collected and reported the scores and the researcher assumed they were reliable and valid as stated. Each teacher was a valid employee of his or her individual school district. All results followed strict security procedures. The data obtained from the study was only given to approved personnel by the conductor of the study.

Procedures

The 2011-2012 Student Assessment Data was obtained from the Mississippi Department of Education’s website and was the source of test scores used in this study. School districts were chosen for participation if 50% or more of their eighth grade students scored proficient or advanced on all three areas (language arts, math, or science) of the spring 2012 pencil and paper administration of the MCT2. Because the test scores of individual schools were public record and posted on web sites as a requirement of the No Child Left Behind Act (2002), permission was not obtained from the individual schools.

Superintendents of each selected school district received a brief overview of the study and a permission letter asking to voluntarily participate in the study (Appendix C). Where permission was granted, the instrument along with detailed instructions (Appendix D) was sent to each middle or high school containing eighth grade. The instrument was in paper form and included a prepaid return envelope. Using SPSS, the results were analyzed to determine eighth grade teachers’ perceptions of the impact, quality, and types
of job-embedded professional development activities they have participated in during the 2011-2012 school year and the relationship to student achievement. The questionnaire should have only taken about fifteen minutes to complete. Due to the low number of respondents at the end of two weeks, an email reminder about completing the survey was sent to the principal at each participating school.

Data Analysis

Once the data was collected, responses were organized according to subject. Using SPSS, multiple regression analysis was run to determine which of the independent variables (teachers’ perceptions of their participation, the quality, and impact of their participation in job-embedded professional development activities) had the greatest impact on the dependent variable (test scores). The independent variables were used to predict the language arts, math, or science test scores which were the dependent variables.

Data was stored at the residence of the collector. Data was stored on two flash drives and the hard drive of the collector’s computer. The flash drives were stored in a combination safe after completion of the study. Data was not made available to school districts prior to completion of the study.

Summary

Chapter III outlined the Methodology for the study including the instruments and procedures used during this quantitative study. The study sought to determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they had participated in and the relationship to student achievement on the MCT2 in the areas of Language Arts, Math, and Science for
eighth grade students in Mississippi. The results were presented in various media to
establish an environment conducive for student growth.
CHAPTER IV

RESULTS

The purpose of this study was to determine eighth grade respondents’ perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship to student achievement. Chapter IV presents the statistical analysis for the study to determine if a relationship exists between the independent variables and the dependent variables. The independent variables were respondents’ perceptions of the impact, quality and types of job-embedded professional development and the dependent variables were eighth grade language arts, math, or science test scores. The research design utilized a quantitative survey methodology. Multiple Linear Regression was used to determine the statistical relationship between the variables.

Descriptive Statistics

This section describes demographic data for participants, as well as, means and standard deviations for variables. Statistical relationships were based on a significance level of .05. One hundred and twenty-five surveys were mailed to nineteen schools, and 51% of the surveys were returned, representing the total number (N = 64) of participants in this study. In order to gather data about the respondents, eight demographic questions were included on the questionnaire. The demographic data for gender, race, certification, highest degree, years as a teacher, years at current school, subject area, and schedule are presented in Table 1.

The demographic information indicated that 76.6% of the respondents were female. Although the racial makeup varied, 57.8% of the respondents were Caucasian.
Of the 64 respondents, 96.9% held a permanent educator’s license. The majority of respondents, 51.6%, held a Master’s Degree.

The majority of respondents had fewer than ten years of teaching experience: 29.7% had 0-5 years of experience and 28.1% had 6-10 years of experience.

Respondents reported that 46.9% had been at their current school 0-5 years, and 37.5% had been at their current school 6-10 years. The primary teaching area for 39.1% of respondents was eighth grade Math and 35.9% taught eighth grade English/language arts.

All of the respondents, 100%, reported that their school was on a traditional schedule whereas, they taught the same group of students for an entire school year.

Table 1

*Frequency and Percentage Distribution of Demographic Data*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>76.6</td>
</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>23.4</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Biracial</td>
<td>3</td>
<td>4.7</td>
</tr>
<tr>
<td>Caucasian</td>
<td>37</td>
<td>57.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Table 1 (continued).

<table>
<thead>
<tr>
<th>Certification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>62</td>
<td>96.9</td>
</tr>
<tr>
<td>Temporary</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Alternative Certification</td>
<td>1</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>24</td>
<td>37.5</td>
</tr>
<tr>
<td>Masters</td>
<td>33</td>
<td>51.6</td>
</tr>
<tr>
<td>Specialist</td>
<td>6</td>
<td>9.4</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years at current school</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>30</td>
<td>46.9</td>
</tr>
<tr>
<td>6-10</td>
<td>24</td>
<td>37.5</td>
</tr>
<tr>
<td>11-15</td>
<td>9</td>
<td>14.1</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years as a teacher</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>19</td>
<td>29.7</td>
</tr>
<tr>
<td>6-10</td>
<td>18</td>
<td>28.1</td>
</tr>
<tr>
<td>11-15</td>
<td>14</td>
<td>21.9</td>
</tr>
<tr>
<td>16-20</td>
<td>7</td>
<td>10.9</td>
</tr>
<tr>
<td>21-25</td>
<td>5</td>
<td>7.8</td>
</tr>
<tr>
<td>26-30</td>
<td>1</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Table 1 (continued).

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/LA</td>
<td>23</td>
<td>35.9</td>
</tr>
<tr>
<td>Math</td>
<td>25</td>
<td>39.1</td>
</tr>
<tr>
<td>Science</td>
<td>16</td>
<td>25.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>64</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Respondents were asked to report the number of professional development hours they have participated in during the last 18 months. The mean amount of professional development reported was 7.55 hours. Respondents were also asked to report their participation in job-embedded professional development in hours. The mean amount of job-embedded professional development was 6.30 hours. The data in Table 2 shows the mean and standard deviation of teacher’s responses to these questions.

Table 2

Means and Standard Deviations for Hours of Professional Development

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9</td>
<td>During the last 18 months, what was the TOTAL number of hours of professional development you received?</td>
<td>7.55</td>
<td>6.19</td>
</tr>
<tr>
<td>Q10</td>
<td>Of the number reported in question 9, how many of those hours were sponsored by your school district, occurred within your school district, took place during the school day, immediately after school, or on designated professional development days?</td>
<td>6.30</td>
<td>5.99</td>
</tr>
</tbody>
</table>
Participation in Professional Development

Questions 11 through 13 asked respondents to report if during the last 18 months, they had participated in the type of content related professional development listed. Respondents answered yes or no. The findings showed that respondents participated in very little content related professional development. Of those responding, 71.9% reported that they had not participated in Science content specific professional development.

Questions 14 through 18 asked respondents to report if during the last 18 months, they had participated in the types of traditional job-embedded professional development listed by answering yes or no. The findings showed that 96.9% of respondents participated in workshops that took place in their school district. Of those responding, 54.7% reported that they had also participated in workshops that took place outside of their school district. A large percent of respondents, 89.1%, reported that they had not participated in a teacher certification program during the last 18 months.

Questions 19 through 23 asked respondents to report if during the last 18 months, they participated in the types of non-traditional job-embedded professional development listed by answering yes or no. The findings showed that 89.1% of respondents had not spent time as an intern as required for an advanced degree or alternative route certification. Of those responding, 65.6% reported that they had not mentored and/or coached another teacher at their school as part of a formal school arrangement. Respondents also reported that 78.1% had not participated individually or collaboratively in research on a topic of interest to them professionally. The data in Table 3 shows the frequency and percentage distribution for participation in professional development.
Table 3

*Frequency and Percentage Distribution for Participation in Professional Development*

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes Frequency</th>
<th>Yes %</th>
<th>No Frequency</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Did you participate in the professional development activities listed?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Content-related professional development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11 Reading/Language Arts content specific workshops</td>
<td>28</td>
<td>43.8</td>
<td>36</td>
<td>56.3</td>
</tr>
<tr>
<td>Q12 Mathematics content specific workshops</td>
<td>25</td>
<td>39.1</td>
<td>39</td>
<td>60.9</td>
</tr>
<tr>
<td>Q13 Science content specific workshops</td>
<td>18</td>
<td>28.1</td>
<td>46</td>
<td>71.9</td>
</tr>
<tr>
<td><strong>Traditional professional development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q14 Workshops (on education-related topics) that took place in your school district</td>
<td>62</td>
<td>96.9</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Q15 Workshops (on education-related topics) that took place outside of your school district</td>
<td>35</td>
<td>54.7</td>
<td>29</td>
<td>45.3</td>
</tr>
<tr>
<td>Q16 College courses for credit</td>
<td>24</td>
<td>37.5</td>
<td>40</td>
<td>62.5</td>
</tr>
<tr>
<td>Q17 Education conferences or seminars</td>
<td>22</td>
<td>34.4</td>
<td>42</td>
<td>65.6</td>
</tr>
<tr>
<td>Q18 Teacher Certification program</td>
<td>7</td>
<td>10.9</td>
<td>57</td>
<td>89.1</td>
</tr>
<tr>
<td><strong>Non-traditional professional development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q19 Spent time as an intern as required for an advanced degree or alternative route certification</td>
<td>7</td>
<td>10.9</td>
<td>57</td>
<td>89.1</td>
</tr>
<tr>
<td>Q20 Mentored and/or coached another teacher at your school as part of a formal school arrangement</td>
<td>22</td>
<td>34.4</td>
<td>42</td>
<td>65.6</td>
</tr>
</tbody>
</table>
Table 3 (continued).

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes Frequency</th>
<th>Yes %</th>
<th>No Frequency</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q21 Participation in a network of teachers formed for the professional development of teachers</td>
<td>22</td>
<td>34.4</td>
<td>42</td>
<td>65.6</td>
</tr>
<tr>
<td>Q22 Individual or collaborative research on a topic of interest to you professionally</td>
<td>14</td>
<td>21.9</td>
<td>50</td>
<td>78.1</td>
</tr>
<tr>
<td>Q23 Participation in teacher data or assessment development teams</td>
<td>38</td>
<td>59.4</td>
<td>26</td>
<td>40.6</td>
</tr>
</tbody>
</table>

**Quality of Professional Experiences**

If respondents answered yes to questions 11-23, they were asked to rate the quality and impact of their content related professional development experiences. Respondents used a 4-point Likert-type scale with 1=Poor, 2=Fair, 3=Good, and 4=Excellent to rate the quality of the professional development activity. Questions 11 through 13 asked respondents to rate the quality of their content related professional development experiences. Respondents rated the quality of their content related professional development experiences very low. The highest reported mean, 1.33, was for the quality of Reading/language arts content related professional development. Science content related professional development received the lowest mean rating of 0.88.

Questions 14 through 18 asked respondents to rate the quality of their traditional professional development experiences. Respondents were also asked to rate the quality and impact of their traditional professional development experiences. Respondents used a 4-point Likert-type scale with 1=Poor, 2=Fair, 3=Good, and 4=Excellent to rate the
quality of the professional development activity. Respondents rated the quality of their traditional professional development experiences very low. The highest rated mean, 2.92, was for the quality of workshops (on education-related topics) that took place in their school district. Teacher certification program received the lowest rated mean of 0.47.

Questions 19 through 23 asked respondents to rate the quality of their non-traditional professional development experiences. If respondents answered yes to questions 19-23, they were asked to rate the quality and impact of their non-traditional professional development experiences. Respondents used a 4-point Likert-type scale with 1=Poor, 2=Fair, 3=Good, and 4=Excellent to rate the quality of the non-traditional professional development activity. Respondents rated the quality of their non-traditional professional development experiences as 0.98 which was very low. The highest rated mean, 1.73, was for the quality of participation in teacher data or assessment development teams. The lowest rated mean, 0.34, was for time spent as an intern as required for an advanced degree or alternative route certification.

Teacher perceptions of the quality of their job-embedded professional development experiences were combined to determine the overall quality of their professional development experiences. Traditional professional development received the highest mean rating for quality. The data in Table 4 shows the means and standard deviations for the quality of professional development.
Table 4

*Means and Standard Deviations for the Quality of Professional Development*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content-related professional development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11b Reading/Language Arts content specific workshops</td>
<td>1.33</td>
<td>1.58</td>
</tr>
<tr>
<td>Q12b Mathematics content specific workshops</td>
<td>1.20</td>
<td>1.54</td>
</tr>
<tr>
<td>Q13b Science content specific workshops</td>
<td>0.88</td>
<td>1.43</td>
</tr>
<tr>
<td><strong>Traditional professional development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q14b Workshops (on education-related topics) that took place in your school district</td>
<td>2.92</td>
<td>0.72</td>
</tr>
<tr>
<td>Q15b Workshops (on education-related topics) that took place outside of your school district</td>
<td>1.84</td>
<td>1.68</td>
</tr>
<tr>
<td>Q16b College courses for credit</td>
<td>1.19</td>
<td>1.57</td>
</tr>
<tr>
<td>Q17b Education conferences or seminars</td>
<td>1.11</td>
<td>1.58</td>
</tr>
<tr>
<td>Q18b Teacher Certification program</td>
<td>0.47</td>
<td>1.18</td>
</tr>
<tr>
<td><strong>Non-traditional professional development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q19b Spent time as an intern</td>
<td>0.34</td>
<td>1.00</td>
</tr>
<tr>
<td>Q20b Mentored and/or coached another teacher at your school as part of a formal school arrangement</td>
<td>1.08</td>
<td>1.52</td>
</tr>
<tr>
<td>Q21b Participation in a network of teachers formed for the professional development of teachers</td>
<td>1.00</td>
<td>1.41</td>
</tr>
<tr>
<td>Q22b Individual or collaborative research on a topic of interest to you professionally</td>
<td>0.75</td>
<td>1.45</td>
</tr>
<tr>
<td>Q23b Participation in teacher data or assessment development teams</td>
<td>1.73</td>
<td>1.49</td>
</tr>
</tbody>
</table>

*Note.* Scale: 1=Poor, 2=Fair, 3=Good, and 4=Excellent
Impact of Professional Development Experiences

If respondents answered yes to questions 11-23, they were asked to rate the impact of their content related professional development experiences. Respondents described the impact of the content related professional development activity using a 4-point Likert-type scale with 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact. Respondents rated the impact of the content related professional development experiences very low. The highest rated mean, 1.34, was for the impact of Reading/language arts content related professional development. Science content related professional development received the lowest mean rating of 0.86.

Questions 14 through 18 asked respondents to rate the impact of their participation in traditional professional development activities. Respondents rated the impact of the traditional related professional development experiences very low. The highest rated mean, 2.92, was for the impact of workshops (on education-related topics) that took place in their school district. Teacher certification program received the lowest rated mean of 0.47.

Questions 19 through 23 asked respondents to rate the impact of their participation in non-traditional professional development activities. Respondents rated the impact of non-traditional related professional development experiences as 0.98 which was very low. Participation in teacher data or assessment development teams received the highest rated mean of 1.80. Spent time as an intern as required for an advanced degree or alternative route certification had the lowest rated mean of 0.39.

Teacher perceptions of the impact of their job-embedded professional development experiences were also combined to determine the overall impact of their
professional development experiences. Traditional professional development received the highest mean rating for impact. The data in Table 5 shows the means and standard deviations for the quality of professional development.

Table 5

*Means and Standard Deviations for the Impact of Professional Development*

<table>
<thead>
<tr>
<th>Content related professional development</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11c Reading/Language Arts content specific workshops</td>
<td>1.34</td>
<td>1.61</td>
</tr>
<tr>
<td>Q12c Mathematics content specific workshops</td>
<td>1.16</td>
<td>1.49</td>
</tr>
<tr>
<td>Q13c Science content specific workshops</td>
<td>0.86</td>
<td>1.41</td>
</tr>
<tr>
<td>Traditional professional development</td>
<td>1.49</td>
<td>0.78</td>
</tr>
<tr>
<td>Q14c Workshops (on education-related topics) that took place in your school district</td>
<td>2.92</td>
<td>0.76</td>
</tr>
<tr>
<td>Q15c Workshops (on education-related topics) that took place outside of your school district</td>
<td>1.77</td>
<td>1.64</td>
</tr>
<tr>
<td>Q16c College courses for credit</td>
<td>1.28</td>
<td>1.70</td>
</tr>
<tr>
<td>Q17c Education conferences or seminars</td>
<td>1.03</td>
<td>1.48</td>
</tr>
<tr>
<td>Q18c Teacher Certification program</td>
<td>0.47</td>
<td>1.18</td>
</tr>
<tr>
<td>Non-traditional professional development</td>
<td>0.98</td>
<td>0.71</td>
</tr>
<tr>
<td>Q19c Spent time as an intern as required for an advanced degree or alternative route certification</td>
<td>0.39</td>
<td>1.14</td>
</tr>
<tr>
<td>Q20c Mentored and/or coached another teacher at your school as part of a formal school arrangement</td>
<td>0.98</td>
<td>1.41</td>
</tr>
<tr>
<td>Q21c Participation in a network of teachers formed for the professional development of teachers</td>
<td>0.95</td>
<td>1.39</td>
</tr>
</tbody>
</table>
Table 5 (continued).

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q22c</td>
<td>0.77</td>
<td>1.49</td>
</tr>
<tr>
<td>Q23c</td>
<td>1.80</td>
<td>1.59</td>
</tr>
</tbody>
</table>

Note. Scale: 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact.

Questions 24 through 34 asked respondents to use a 4-point Likert-type scale with 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact to rate the impact of their participation in professional development activities on them as a teacher.

Respondents rated the impact between a small impact and a moderate impact. Focus on student achievement and knowledge and understanding of instructional practices had the highest rated mean of 2.77. Teaching students with special learning needs had the lowest rated mean of 1.72. The data in Table 6 shows the means and standard deviations for the impact of participation in professional development activities on them as a teacher.

Table 6

Means and Standard Deviations for Impact on Teachers

<table>
<thead>
<tr>
<th>Question</th>
<th>What impact did your participation in professional development have on you as a teacher?</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q24</td>
<td>Ability to apply professional development to teaching</td>
<td>2.73</td>
<td>0.70</td>
</tr>
<tr>
<td>Q25</td>
<td>Attitude toward professional development</td>
<td>2.42</td>
<td>0.89</td>
</tr>
<tr>
<td>Q26</td>
<td>Classroom management</td>
<td>2.36</td>
<td>0.82</td>
</tr>
<tr>
<td>Q27</td>
<td>Content and performance standards in my content area</td>
<td>2.75</td>
<td>0.74</td>
</tr>
<tr>
<td>Q28</td>
<td>Desire for change</td>
<td>2.42</td>
<td>1.04</td>
</tr>
</tbody>
</table>
Table 6 (continued).

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q29</td>
<td>Focus on student achievement</td>
<td>2.77</td>
</tr>
<tr>
<td>Q30</td>
<td>Knowledge and understanding of instructional practices</td>
<td>2.77</td>
</tr>
<tr>
<td>Q31</td>
<td>Satisfaction with work</td>
<td>2.22</td>
</tr>
<tr>
<td>Q32</td>
<td>Retention and pass rates of students</td>
<td>2.20</td>
</tr>
<tr>
<td>Q33</td>
<td>Student assessment practices</td>
<td>2.41</td>
</tr>
<tr>
<td>Q34</td>
<td>Teaching students with special learning needs</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Note. Scale: 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact.

Questions 35 through 40 asked respondents to rate the impact of their participation in professional development activities on their students. Respondents described the impact of their participation in professional development activities using a 4-point Likert-type scale with 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact. Respondents rated the impact of their professional development experiences as having a small impact on their students. Increased or improved student achievement had the highest rated mean impact of 2.52. Increased or improved student ability to meet or exceed standards and increased or improved student performance on classroom exams had the lowest rated mean impact of 2.30. The data in Table 7 shows the mean and standard deviation for the impact of respondents’ participation in professional development activities on their students.
Table 7

*Means and Standard Deviations for Impact on Students*

<table>
<thead>
<tr>
<th>Question: Based upon each statement, what impact did your participation in professional development activities have on your students?</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q35 Increased or improved student achievement</td>
<td>2.52</td>
<td>0.69</td>
</tr>
<tr>
<td>Q36 Increased or improved student ability to meet or exceed standards</td>
<td>2.30</td>
<td>0.85</td>
</tr>
<tr>
<td>Q37 Increased or improved student pre and post test scores</td>
<td>2.36</td>
<td>0.92</td>
</tr>
<tr>
<td>Q38 Increased or improved student participation in class</td>
<td>2.33</td>
<td>0.86</td>
</tr>
<tr>
<td>Q39 Increased or improved student performance on classroom exams</td>
<td>2.30</td>
<td>0.85</td>
</tr>
<tr>
<td>Q40 Increased or improved student performance on state mandated test-MCT2 and MST2</td>
<td>2.38</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*Note.* Scale: 1=No impact, 2=A small impact, 3=A moderate impact, and 4=A large impact.

**Research Questions**

The statistical tests were performed in order to answer the following research questions:

1. What are teachers’ perceptions of their participation in job-embedded professional development?

2. What are teachers’ perceptions of the quality of the job-embedded professional development in which they have participated?

3. Which type of job-embedded professional development activities, traditional or non-traditional, has the greatest impact on perceptions of student achievement?
4. What is the relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 Language arts, math, or science scores of eighth grade students?

Hypotheses

Hypotheses were tested using Multiple Linear Regression and Pearson’s Correlation. This section presents the results for each hypothesis.

H₁: There will be a significant relationship between teachers’ perceptions of their participation in traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement.

A Multiple Linear Regression was performed to analyze the hypothesis using a significance level of .05 to determine the statistical relationship between variables. The R Square statistic for participation in traditional and non-traditional job-embedded professional development was cited as 13.4% of explained variability. The model was significant since the p-value reported was less than .05 at $F(2,61) = 4.734, p = .012, R^2 = 0.134$. Hypothesis 1 was accepted, thus indicating a relationship between respondents’ perceptions of their participation in traditional and non-traditional job-embedded professional development activities and their perceptions of the impact on student achievement. The findings showed that respondents’ perceived their participation in traditional job-embedded professional development had the greatest impact on student achievement. Table 8 presents the unstandardized coefficients for participation in traditional and non-traditional job-embedded professional development.
Table 8

*Unstandardized Coefficients for Participation*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.71</td>
<td>7.30</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Participation in traditional job-embedded professional development</td>
<td>.16</td>
<td>.25</td>
<td>2.09</td>
<td>.04</td>
</tr>
<tr>
<td>Participation in non-traditional job-embedded professional development</td>
<td>.17</td>
<td>.27</td>
<td>2.25</td>
<td>.03</td>
</tr>
</tbody>
</table>

H2: There will be a significant relationship between teachers’ perceptions of the quality of traditional and non-traditional job-embedded professional development and perceptions of the impact on student achievement.

A Multiple Linear Regression was performed to analyze the hypothesis using a significance level of .05 to determine the statistical relationship between variables. The R-Square statistic was cited as 15.2% of explained variability. The model was significant since the p-value reported was less than .05 at $F(2,61) = 5.463, p = 0.007, R^2 = 0.15$. Hypothesis 2 was accepted thus, indicating a relationship between respondents’ perceptions of the quality of the traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement. According to respondents’ perceptions, the quality of traditional job-embedded professional development had the greatest perceived impact on student achievement. Table 9 presents the unstandardized coefficients for the quality of traditional and non-traditional job-embedded professional development.
Table 9  

*Unstandardized Coefficients for Quality*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.72</td>
<td>8.06</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Perceived quality of traditional job-embedded professional development</td>
<td>.25</td>
<td>.26</td>
<td>2.23</td>
<td>.03</td>
</tr>
<tr>
<td>Perceived quality of non-traditional job-embedded professional development</td>
<td>.27</td>
<td>.27</td>
<td>2.31</td>
<td>.02</td>
</tr>
</tbody>
</table>

H3: There will be a significant relationship between teachers’ perceptions of the impact of traditional and non-traditional job-embedded professional development and perceptions of the impact on student achievement.

To determine the relationship between the independent variables (traditional and non-traditional job-embedded professional development) and the dependent variable (perceptions of the impact on student achievement), a Pearson’s Correlation was performed to analyze the hypothesis. A significance level of .05 was used. The findings showed a small correlation between respondents’ perceptions of traditional job-embedded professional development and respondents’ perceptions of the impact on student achievement. The findings also show a small correlation between respondents’ perceptions of non-traditional job-embedded professional development and perceptions of the impact on student achievement. However, respondents’ perceived that traditional job-embedded professional development had the greatest perceived impact on student achievement. Table 10 presents the correlations for the perceived impact of traditional and non-traditional job-embedded professional development.
Table 10

*Correlations for Impact*

<table>
<thead>
<tr>
<th>Model</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived impact of traditional job-embedded professional development</td>
<td>0.36*</td>
</tr>
<tr>
<td>Perceived impact of non-traditional job-embedded professional development</td>
<td>0.33*</td>
</tr>
</tbody>
</table>

*Note. *p < .05

H₄: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 language arts scores of eighth grade students.

A Multiple Linear Regression was performed to analyze the hypothesis using a significance level of .05 to determine the statistical relationship between variables. The R Square statistic for English/language arts was reported as 3% of explained variability. The model was not significant since the p-value reported was more than .05 at $F(5,58) = 0.356$, $p = .876$, $R^2 = 0.03$. The hypothesis was, therefore, rejected. There was not a significant relationship between respondents’ perceptions of the impact, quality, and types of job-embedded professional development and the actual MCT2 language arts scores of eighth grade students.

H₅: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 math scores of eighth grade students.

A Multiple Linear Regression was performed to analyze the hypotheses using a significance level of .05 to determine the statistical relationship between variables. The R Square for math was reported as 5% of explained variability. The model was not
significant since the $p$-value reported was more than .05 at $F(5,58) = 0.611, p = 0.69, R^2 = 0.05$. The hypothesis was, therefore, rejected. There was not a significant relationship between respondents’ perceptions of the impact, quality, and types of job-embedded professional development and the actual MCT2 math scores of eighth grade students.

$H_6$: There will be a significant relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 science scores of eighth grade students.

A Multiple Linear Regression was performed to analyze the hypotheses using a significance level of .05 to determine the statistical relationship between variables. The R Square for science was reported as 2.6% of explained variability. The model was not significant since the $p$-value reported was more than .05 at $F(5,58) = 0.311, p = 0.91, R^2 = 0.026$. The hypothesis was, therefore, rejected. There was not a significant relationship between respondents’ perceptions of the impact, quality, and types of job-embedded professional development and the actual MCT2 science scores of eighth grade students.

When broken down by content area, there were differences in the impact of traditional and non-traditional job-embedded professional development. The findings showed that traditional job-embedded professional had the highest ratings of .09 and above for impact in two of the three content areas. Non-traditional job-embedded professional development, on the other hand, had ratings of .05 for impact in two of the three content areas. Table 11 presents the unstandardized coefficients for impact by content area.
Table 11

*Unstandardized Coefficients for Impact by Content Area*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts</td>
<td>1.03</td>
<td>.09</td>
<td>.132</td>
<td>.90</td>
</tr>
<tr>
<td>Math</td>
<td>-.03</td>
<td>-.01</td>
<td>-.01</td>
<td>.99</td>
</tr>
<tr>
<td>Science</td>
<td>1.71</td>
<td>.19</td>
<td>.28</td>
<td>.78</td>
</tr>
<tr>
<td>Non-traditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts</td>
<td>2.40</td>
<td>.19</td>
<td>.40</td>
<td>.69</td>
</tr>
<tr>
<td>Math</td>
<td>1.98</td>
<td>.26</td>
<td>.56</td>
<td>.58</td>
</tr>
<tr>
<td>Science</td>
<td>3.08</td>
<td>.32</td>
<td>.66</td>
<td>.51</td>
</tr>
</tbody>
</table>

Summary

Chapter IV presented the descriptive and statistical data for this research study. Sixty-four eighth grade teachers from schools from across the state participated in the study. Multiple Linear Regression and Pearson’s Correlation were used to determine if there was a statistically significant relationship between the independent variables and the dependent variables. The results indicated a statistically significant relationship between respondents’ perceptions of their participation in traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement. The results also indicated a statistically significant relationship between respondents’ perceptions of the quality of traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement. According to the results, respondents’ perceived that traditional job-
embedded professional development activities had the greatest impact on student achievement. There was not a statistically significant relationship between respondents’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 language arts, math, or science scores of eighth grade students.
CHAPTER V
DISCUSSION

Introduction

The purpose of this study was to determine eighth grade teachers’ perceptions of the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship of their participation to student achievement in language arts, math, or science as measured by MCT2. The researcher sought to determine (a) teachers’ perceptions about their participation in job-embedded professional development, (b) teachers’ perceptions about the quality of the job-embedded professional development in which they have participated, (c) teachers’ perceptions about the impact of the job-embedded professional development in which they have participated, and (d) the relationship of their participation to student achievement as measured by MCT2 language arts, math, or science scores of eighth grade students. Chapter V discusses the findings of this study and offers suggestions for further study and research.

Discussion

The demographic information was examined and provided insight into the background of the respondents. The majority of the respondents were female, and most respondents had advanced degrees. They had fewer than ten years of teaching experience and had been at their current school ten years or fewer. The respondents were almost evenly distributed based on the subject area taught—English/language arts, math, and science teachers.
In 1999-2000, the National Center for Education Statistics (NCES) data showed that a little more than 50% of respondents to their survey reported spending a day or less in professional development during the previous year (Hill, 2009). In 2013, the findings from this study supported that respondents are still spending a day or less in professional development. Of the several different types of traditional job embedded professional development, the findings showed that the majority of respondents participated in workshops that took place in their school district. Of those responding, almost half also reported that they participated in workshops that took place outside of their school district. Traditional workshops and conferences continue to be major sources of teacher and administrator professional development which was consistent with Colbert et al. findings (2008).

Respondents in this study reported very little participation in content related professional development. This was surprising considering that national trends showed greater participation in professional development activities that were based on the content area in which a teacher taught (Hochberg & Desimone, 2010). According to Firestone et al., (2005), teachers’ knowledge of the subject taught was one area that directly benefits students. Very few respondents in this study participated in other non-traditional professional development such as spending time as an intern, teacher certification program, individual or collaborative research, mentored and/or coached another teacher, participation in a network of teachers, and college courses for credit.

The findings of this study supported previous research (Darling-Hammond & McLaughlin, 2011; Darling-Hammond et al., 2009; Desimone et al., 2006) that cited that much of the professional development available to teachers in the United States was not
useful. Respondents rated the quality of their content related job-embedded professional development, their traditional job-embedded professional development, and their non-traditional job-embedded professional development experiences very low. This means that job-embedded professional development activities did not serve the interests of the participants.

The findings of this study found a small correlation between respondents’ perceptions of job-embedded professional development and the impact on student achievement. The findings supported previous research that described professional development as an effective agent used to change teacher learning and practice (Opfer & Pedder, 2011). Respondents in this study reported that traditional job-embedded professional development activities had the greatest perceived impact on student achievement. Colbert et al. (2008) listed workshops and seminars as traditional professional development activities. New non-traditional models of job-embedded professional development such as mentoring, peer observation and coaching, networking, and collaborative work received lower ratings from respondents.

The results of this study were surprising considering that respondents were from high performing schools districts. Professional development experiences were rated very low in quality and impact. Future studies may want to address some of the limitations of this study such as the use of district level data and the use of data from school districts in the upper achievement range. Other factors may play a role in the success of these high performing school districts.

In summary, this study posed four research questions and the research data analyses found:
RQ1: What are teachers’ perceptions about their participation in job-embedded professional development?

The findings from this study indicated a statistically significant relationship between respondents’ perceptions of their participation in traditional and non-traditional job-embedded professional development activities and respondents’ perceptions of the impact on student achievement. According to respondents’ perceptions, their participation in job-embedded professional had a positive impact on student achievement. The findings show that respondents’ perceived that of all of the types of job-embedded professional development, their participation in traditional job-embedded professional development had the greatest impact on student achievement.

RQ2: What are teachers’ perceptions about the quality of the job-embedded professional development in which they have participated?

Respondents rated the quality of their job-embedded professional development experiences low. On a scale of 1 to 4, almost all of the professional development activities received a rating of 1 or less. Respondents rated workshops that took place in their districts highest in quality. Even so, the findings from this study indicated a statistically significant relationship between respondents’ perceptions of the quality of the traditional and non-traditional job-embedded professional development activities and perceptions of the impact on student achievement. According to respondents’ perceptions, the quality of the traditional and non-traditional job-embedded professional development activities had a positive impact on student achievement. The findings showed that respondents’ perceived that the quality of traditional job-embedded professional development had the greatest impact on student achievement.
RQ3: What are teachers’ perceptions about the impact of the job-embedded professional development in which they have participated?

The findings from this study showed a small statistically significant correlation between respondents’ perceptions about traditional job-embedded professional development and perceptions of the impact on student achievement. The findings also showed a small correlation between respondents’ perceptions about non-traditional job-embedded professional development and perceptions of the impact on student achievement. The small correlation could be contributed to respondents’ low ratings for quality of their professional development experiences. Higher quality job-embedded professional development caused changes in teaching and learning (Darling-Hammond and McLaughlin, 2011). Yet, respondents’ perceived that traditional job-embedded professional development had the greatest impact on student achievement.

RQ4: What is the relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 language arts, math, or science scores of eighth grade students?

The findings of this study indicated that there was not a statistically significant relationship between respondents’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 language arts, math, or science scores of eighth grade students. The respondents perceived that their participation, regardless of the content area, in job-embedded professional development did not significantly impact their students. The results may be due to very little participation in content related professional development as indicated by the respondents.
When broken down by content area, there were differences in the impact of traditional and non-traditional job-embedded professional development. The findings showed that traditional job-embedded professional had the highest ratings of .09 and above for impact in two of the three content areas. Non-traditional job-embedded professional development, on the other hand, had ratings of .05 for impact. Therefore, respondents reported that of all types of professional development tested, traditional job-embedded professional development had the greatest impact on language arts, math, or science scores of eighth grade students.

Limitations

The following were considered to be limitations of the study:

1. The study was limited to the Spring 2012 MCT2 scores of eighth grade students. No other grades were included in the study.
2. The study was limited to public schools districts where 50% of their eighth grade students scored proficient or advanced on all three areas of the MCT2-language arts, math, or science. If districts had less than 50% of their eighth grade students score proficient or advanced on all three areas of the MCT2-language arts, math, or science, they were not included in the study.
3. The study was limited to district level achievement data. Scores for individual classrooms associated with teachers participating in this study were not available.
4. The study was limited to eighth grade language arts, math, or science teachers who had been at their current school at least two years (2011-present).

Teachers were not included in the study if they had been at the school for less
than two years and did not teach Math, Science, or language arts. Language arts, math, or science were the only subjects examined for this study.

5. The study was limited to the responses obtained from the questionnaire used to survey teachers. The questionnaire was the only tool used to obtain information from teachers.

6. The study was limited to self-reported data provided by respondents to the questionnaire. The researcher could not be sure if respondents answered accurately or truthfully.

Recommendations for Practice

The results from this research will add to current literature with regard to the need to address job-embedded professional development. The results show that respondents are participating in low quality professional development consisting mainly of workshops and conferences within their school district. Therefore, it did not meet the needs of the participants. Desimone et al. (2002) suggested that most district-supported professional development activities do not have the components necessary for high quality activities. Several studies (Croft et al., 2010; Darling-Hammond & McLaughlin, 2011; Desimone et al., 2002; Hochberg & Desimone, 2010; Torff & Byrnes, 2011) have identified important characteristics of effective professional development.

The characteristics of effective professional development that appeared the most in the literature were those that helped teachers develop a deeper understanding of academic content and student learning. The results of this study showed that content related professional development received very low ratings. It is hoped that school leaders and district leaders will examine these characteristics provided by previous and
current research. Changes should be made to the way that current professional development activities are designed and delivered. If changes are not possible, there are many opportunities for professional development that take place outside of the school district. Teachers should be encouraged to take advantage of every possible opportunity.

Recommendations for Future Studies

The following recommendations for future research are based on the findings of this study:

1) Future studies could take the concepts of this study and examine teacher perceptions of job-embedded professional development over the course of several years. This study only examined the last 18 months of teacher participation in job-embedded professional development.

2) Future studies could take the concepts of this study and include research on several grade levels. This study only examined eighth grades scores and eight grade teachers’ participation in job-embedded professional development. It may be interesting to see what is going on at the other middle level grades (6th and 7th) and do a comparison.

3) Future studies should study what motivates teacher participation in professional development. In previous decades, professional development participation was voluntary (Hochberg & Desimone, 2010). From 2010 until present, states require a predetermined number of professional development days as a part of the normal academic year (MDE, 2010).

4) Future studies should examine content related professional development, especially in the area of science. Of the respondents participating in this
study, a majority reported that they had not participated in science content specific professional development.

5) Future research could analyze professional development in schools with less than 50% of their students scoring proficient or advanced on the MCT2 in the areas of language arts, math, and science.

6) Future research could analyze perceptions of the types, quality, and impact of professional development experiences differed based on gender. The majority of respondents in this study were female.

Summary

Chapter V provided a discussion of the analyses cited in Chapter IV. The findings from this study indicated a statistically significant relationship between respondents’ perceptions of their participation and the perceived impact on student achievement. Even though, respondents’ rated the quality of their job-embedded professional development experiences low, there was a statistically significant relationship between their perceptions of quality and the perceived impact on student achievement. The findings also indicated a statistically significant correlation between respondents’ perceptions of all types of job-embedded professional development and perceptions of the impact on student achievement. The findings show that of all types of job-embedded professional development, traditional job-embedded professional development received the highest rating for quality and had the greatest impact on student achievement. As individual variables, participation, quality, and types of job-embedded professional development were perceived to be significant. Yet, when
grouped together and compared to the actual MCT2 scores, a statistically significant relationship was not found in any of the content areas.
APPENDIX A

IRB APPROVAL LETTER

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.6820 | Fax: 601.266.4377 | www.usm.edu/irb

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

• The risks to subjects are minimized.
• The risks to subjects are reasonable in relation to the anticipated benefits.
• The selection of subjects is equitable.
• Informed consent is adequate and appropriately documented.
• Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
• Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
• Appropriate additional safeguards have been included to protect vulnerable subjects.
• Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
• If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 13022501
PROJECT TITLE: Teachers' Perceptions about the Types, Quality, and Impact of their Job-Embedded Professional Development Experiences

PROJECT TYPE: New Project
RESEARCHER(S): Delilah Mitchell
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Leadership
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 03/27/2013 to 03/26/2014

Lawrence A. Hosman, Ph.D.
Institutional Review Board
APPENDIX B

TEACHER QUESTIONNAIRE

Title of Study: Teachers’ Perceptions about the Types, Quality, and Impact of Their Job-embedded Professional Development Experiences

Did you teach at this school during the 2011-2012 school year?  ○ Yes  ○ No
If you answered no, DO NOT complete the survey. If you answered yes, complete the survey.

Section I: Background Information

These questions are about you, your education and the time you have spent in teaching. In responding to the questions, please mark the appropriate box.

1. Gender  Mark (X) ONE.
   ○ Female
   ○ Male

2. Race  Mark (X) ONE.
   ○ African American, not of Hispanic origin
   ○ Caucasian not of Hispanic origin
   ○ American Indian or Alaskan Native
   ○ Hispanic
   ○ Asian or Pacific Islander
   ○ Other (Specify) ________________________
   ○ Biracial/Multiethnic

3. Type of teaching certification  Mark (X) ALL that apply.
   ○ Permanent or standard certification
   ○ Temporary, provisional, or emergency certification
   ○ Alternative certification
   ○ Not certified

4. Highest degree obtained  Mark (X) ONE.
   ○ Do not have a graduate degree
   ○ Master’s
   ○ Associate
   ○ Specialist
   ○ Bachelor’s
   ○ Doctorate

5. How many years have you worked as a teacher? __________
   Round up to the nearest whole number and include the current school year.

6. How many years have you taught at THIS school? __________
   Round up to the nearest whole number and include the current school year.

7. What is your primary subject area assignment this year? Mark (X) ONE.
   ○ English/ Language Arts
   ○ Mathematics
   ○ Science

8. For the content area marked above, which statement is true? Mark (X) ONE.
   ○ I teach the same group of students for an entire school year.
   ○ I teach the same group of students for one semester.

Section II: Professional Development

Questions in this section ask about professional development efforts at your school and in your school district.

9. During the last 18 months, what was the TOTAL number of hours of professional development you received? __________ Number of hours

10. Of the number reported in question 9, how many of those hours were sponsored by your school district, occurred within your school district, took place during the school day, immediately after school, or on designated professional development days? __________ Number of hours
**Directions:** Describe your experiences based on your professional development participation during the last 18 months.

For each question below, please mark one choice in part (A). If you answer 'Yes' in part (A), then please mark one choice in part (B) to describe the quality of that professional development activity and in part (C) to describe the impact it had upon your development as a teacher.

<table>
<thead>
<tr>
<th>Did you participate in the professional development activities listed?</th>
<th>(A) Participation</th>
<th>(B) Quality</th>
<th>(C) Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Reading/Language Arts content specific workshops</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>12. Mathematics content specific workshops</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>13. Science content specific workshops</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>14. Workshops (on education-related topics) that took place in your school district</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>15. Workshops (on education-related topics) that took place outside of your school district</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>16. College courses for credit</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>17. Education conferences or seminars</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>18. Teacher Certification program</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>19. Spent time as an intern as required for an advanced degree or alternative route certification</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>20. Mentored and/or coached another teacher at your school as part of a formal school arrangement</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>21. Participation in a network of teachers formed specifically for the professional development of teachers</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>22. Individual or collaborative research on a topic of interest to you professionally</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
<tr>
<td>23. Participation in teacher data or assessment development teams</td>
<td>Yes</td>
<td>No</td>
<td>Poor</td>
</tr>
</tbody>
</table>

Based upon each statement, what impact did your participation in professional development activities have on **YOU** as a teacher?

<table>
<thead>
<tr>
<th>Based upon each statement, what impact did your participation in professional development activities have on <strong>YOUR</strong> students?</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Ability to apply professional development to teaching</td>
</tr>
<tr>
<td>25. Attitude toward professional development</td>
</tr>
<tr>
<td>26. Classroom management</td>
</tr>
<tr>
<td>27. Content and performance standards in my content area</td>
</tr>
<tr>
<td>28. Desire for change</td>
</tr>
<tr>
<td>29. Focus on student achievement</td>
</tr>
<tr>
<td>30. Knowledge and understanding of instructional practices</td>
</tr>
<tr>
<td>31. Satisfaction with work</td>
</tr>
<tr>
<td>32. Retention and pass rates of students</td>
</tr>
<tr>
<td>33. Student assessment practices</td>
</tr>
<tr>
<td>34. Teaching students with special learning needs</td>
</tr>
<tr>
<td>35. Increased or improved student achievement</td>
</tr>
<tr>
<td>36. Increased or improved student ability to meet or exceed standards</td>
</tr>
<tr>
<td>37. Increased or improved student pre and post test scores</td>
</tr>
<tr>
<td>38. Increased or improved student participation in class</td>
</tr>
<tr>
<td>39. Increased or improved student performance on classroom exams</td>
</tr>
<tr>
<td>40. Increased or improved student performance on state mandated test-MCT2 and MST2</td>
</tr>
</tbody>
</table>

*Thank you for taking the time to complete this questionnaire. I greatly appreciate your contribution to the study.*
February 20, 2013

Dear Superintendent,

I am an Educational Leadership student at The University of Southern Mississippi. In March, I will begin conducting research for my Doctoral Dissertation entitled *Teachers’ Perceptions about the Types, Quality, and Impact of Their Job-embedded Professional Development Experiences*. I am studying the relationship between teacher participation in job-embedded professional development and eighth grade student achievement. To complete my study, I would like to request permission to survey the eighth grade English/language arts, math, or science teachers in your school district.

**Overview of Planned Research**

**Purpose:** The purpose of this study is to determine eighth grade teachers’ perceptions about the impact, quality, and types of job-embedded professional development activities they have participated in and the relationship to student achievement. The characteristics of professional development that will be evaluated for this study include collaboration, content focus, and design-traditional and non-traditional. Student achievement will be measured by the Mississippi’s Curriculum Test, Second Edition (MCT2) in the areas of language arts, math, and science.

**Guiding questions:** The research is guided by the following questions: (1) What are teachers’ perceptions about their participation in job-embedded professional development? (2) What are teachers’ perceptions about the quality of the job-embedded professional development in which they have participated? (3) Which type of job-embedded professional development activities -traditional or non-traditional has the greatest impact on perceptions of student achievement? (4) What is the relationship between teachers’ perceptions of the impact, quality, and types of job-embedded professional development and MCT2 language arts, math, or science scores of eighth grade students?

**Procedure:** If permission is granted, the instrument will be sent to each middle or high school containing eighth grade. The instrument will be in paper form and will include a prepaid return envelope. The questionnaire should only take about fifteen minutes to complete.

**Benefits:** Professional development is the primary source used by teachers to increase their knowledge and improve their skills. It is hoped that the results of this study will help school districts and schools make the necessary accommodations to offer effective job-embedded professional development. Effective professional development improves
teaching and leads to increases in student academic performance. No payment will be made to the participants.

*Risks and Confidentiality:* Participation in this project is completely voluntary and subjects may withdraw from this study at any time without penalty, prejudice, or loss of benefits. No participants will be terminated from this study before its completion. Participation is anonymous. No names or identifying information of the respondents will be used in the dissertation.

This study will be reviewed by the Human Subjects Protection Review Committee, to ensure that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601)266-6820.

*Subject’s Assurance:* Whereas no assurance can be made concerning results that may be obtained, the researcher will take every precaution with the best scientific practice. Responses to the survey will be combined and only aggregated data will be reported. Each district will be assigned a number for identification and collection purposes.

Please consider allowing your secondary teachers to participate in this study. If you will grant me permission to contact principals and teachers, please return the attached letter on your school district’s letterhead. I have enclosed a postage paid envelope.

If you have questions about this study or are interested in knowing the results, I can be contacted by phone at (601)249-6942 or by email at delilah.mitchell@eagles.usm.edu. My dissertation chair is Dr. Thelma Roberson and she may be contacted by phone at (601)266-4580 or by email at thelma.roberson@usm.edu.

Sincerely,

Delilah Mitchell
Doctoral Candidate
The University of Southern Mississippi
APPENDIX D

QUESTIONNAIRE COVER LETTER

Dear Teacher,

I am conducting research for my doctoral dissertation in Educational Leadership at The University of Southern Mississippi. I am studying eighth grade teachers’ perceptions about the types, quality, and impact of job-embedded professional development activities that they have participated in and the relationship to student achievement in language arts, math, and science.

I would appreciate it if you would complete the questionnaire and return it in the attached postage paid envelope. It should only take about 15 minutes to complete the questionnaire. There are no known risks or dangers for your participation in this study. Participation is completely voluntary and you may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Your completion of the survey grants consent to participate in the study.

For identification and collection purposes, each district will be assigned a number. No names or identifying information will be used. Please do not include any identifying information other than what is asked on the questionnaire. Responses to the survey will be combined and only aggregated data will be reported.

If you have any questions or concerns, please feel free to contact me at (601) 249-6942 (cell) or via email at delilah.mitchell@eagles.usm.edu. My research advisor for this study is Dr. Thelma Roberson and she may be reached at (601)266-4580.

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601)266-6820.

Thank you in advance for your assistance in this research.

Sincerely,

Delilah Mitchell,
Doctoral Candidate
The University of Southern Mississippi
REFERENCES


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