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The Impact of the High-Stakes Mississippi Curriculum Test on Teachers Instructional Practices

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THE IMPACT OF THE HIGH-STAKES MISSISSIPPI CURRICULUM TEST ON TEACHERS INSTRUCTIONAL PRACTICES

By

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This study was designed to examine the ideal and actual teaching practices of sixth through eighth grade teachers in the Rankin County School District whose students take the Mississippi Curriculum Test in an effort to raise student achievement whose students take the Mississippi Curriculum Test. It was also designed to examine whether ideal or actual teaching practices align with constructivist or behaviorist teaching practices.

Eighty nine sixth, seventh, and eighth grade teachers whose students took the Mississippi Curriculum in the Spring 2006 semester participated in the study. Teachers responded to two surveys whose questions were identical but from two different frames of reference: one with high stakes testing and one without high stakes testing. Teachers

also responded to a third survey that asked for their perceptions of the Mississippi Curriculum Test.

A two-way Measures Analysis of Variance (ANOVA), supported by a tukey post hoc comparison on the scale scores of the questionnaires were used to determine if there was a statistically significant difference between teachers' ideal and actual teaching practices to improve student achievement on the Mississippi Curriculum Test. Further findings from the study did conclude that there was a statistically significant difference in teachers use of behaviorist and constructivist instructional practices. Data obtained from the study indicated that there are significant differences in teachers actual and ideal instructional practices in relation to their behaviorist and constructivist instructional practices. Data obtained from the participants indicated that they use favor constructivist practices to raise student achievement on the Mississippi Curriculum Test.

DEDICATION

This is dedicated to my wife, Diana, who has stood by me during this process and to my sons Matt and Mark. I would also like to dedicate this to my parents, Jane and Frank Buchanan. The support of my family has made this possible.

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CHAPTER I

INTRODUCTION

As part of a larger movement to raise expectations for all students attending public schools in the United States, high-stakes state-mandated testing programs reportedly tied to new or revised state curriculum standards are currently being developed and used in a majority of states (Cimbricz, 2002). Thus, high-stakes testing is at the forefront of educational issues in the nation's schools today. High-stakes test are defined as any testing program whose results have important consequences for students, teachers, schools, and or districts if certain performance levels are not met (Johnson & Johnson, 2002). The public in general, and politicians in particular are concerned about the consequences of the high-stakes testing movement. Research studies indicate numerous unintended negative consequences for students, teachers, curriculum and schools have been identified (Marchant, 2004). Therefore, teacher education programs are longer and more intense than ever. Teacher attrition rates are at an all-time high, which leads to frustration for those left teaching in the classrooms across America. Much of this frustration is increased by high stakes testing and calls for greater accountability. Teachers are changing how and what they teach in response to high stakes state mandated testing programs. The changes are greatest in states where more consequences are attached to test results. This new occurrence in education needs to be researched further.

To date, every state plus the District of Columbia and Puerto Rico have submitted and received approval for plans of accountability based upon reaching the goal of one hundred percent grade level attainment for every student. Texas is the only state that has linked test scores with teacher evaluation, but other states have plans to do so in the future (McNeil and Valenzuela, 2001). The Mississippi Curriculum Test (MCT) (Mississippi Department of Education, 2003) is considered high-stakes test for kindergarten through eighth grade students because students must pass objectives at certain levels to be promoted to the next grade. Some teachers exhibit an attitude of indifference toward the test, and believe that if they have done a good job throughout the year their students will perform well on these tests. These teachers generally have high expectations of their students. The Mississippi Curriculum Test is driving other teachers, and their level for student achievement to be inhibited by this strict focus. Some content areas that are not tested on the Mississippi Curriculum Test may not be covered during the school year until after the Mississippi Curriculum Test is administered. Some teachers have described the situation to the extent that "…if a material is not on the MCT, it will not be taught" (D. Bounds personal communication, March 25, 2004).

Background of the Problem

Public educational systems in the United States have been charged with the responsibility of leaving no child behind. The No Child Left Behind Act (U.S. Department of Education, 2001) introduced on May 23, 2001, encompasses policies and programs geared toward improving the quality of life for American children. According to this new requirement, educators must ensure that all students, including disadvantaged

and minority students, meet the same high academic standards as others (107th Congress, 2002).

In January 2002, President Bush signed into law the latest reauthorization of the enduring Elementary and Secondary Education Act of 1965 (ESEA), which became the No Child Left Behind Act (NCLBA). This law directed that all states test students in grades three through eight annually in reading and mathematics, and at least once in grades ten through twelve and also not only provide testing, but results. A timetable in the law prescribes annual targets for proficiency (adequate yearly progress "AYP") so that all students achieve proficiency by 2014, with sanctions for failure (Robelen, 2002).

The foundation of President Bush's No Child Left Behind plan is a promise to raise standards for all children and to help all children meet those standards. Because teachers and administrators cannot know whether schoolchildren are reaching those standards unless they measure performance, President Bush's plan requires annual tests for all children in grades three through eight in the core subjects of reading and math. These assessments will allow parents and officials to hold schools accountable for ensuring that every child learns (Paige, 2001).

Before high stakes testing became a matter of public accountability, the role of the teachers in externally mandated testing was minimal. They distributed and collected testing materials and insured that tests were administered in a uniform manner. There are two basic reasons why this changed. First, high stakes testing became and still is a tool for reforming curriculum and instruction. The leverage for making teachers alter their teaching methods is to prepare their students for new kinds of tests. New state reading

tests include more inferential questions and text evaluations. The math tests include applications rather than just calculations. Writing responses to text and prompts were introduced to assess revising and writing across genres. Professional development activities and teacher training have been tied explicitly to these new tests so that new curricula, new district objectives, and new instructional methods are taught under the umbrella of "aligning" classroom practices with assessment goals and standards. Thus, teachers are told that "teaching to the test" is not only appropriate, but also required.

Second, teachers are more involved in high stakes testing because the test scores are visible public records of their students. Test scores of their students have become public comparative measures of teacher and school effectiveness. When salary, professional status, and careers depend on test scores, teachers become anxious about high stakes tests. They become involved because they are supposed to be responsible for improving test scores so they engage in more test-preparation activities. It is frustrating for the teacher to be evaluated on the basis of test scores of students who have been in their classroom for only a few months. The research evidence shows clearly that this is an erroneous policy because achievement test scores are predicted much more by life-long factors such as parental education, socio-economic status, as well as students' early academic abilities, prior achievement scores, and language and cognitive measures (Cross & Paris, 1987).

Most teachers learn about the new curricula and new tests as part of their professional development. Most teachers enhance their test preparation skills for students each year as they gain expertise with the new curriculum and more familiarity with the

tests. But many teachers also narrow their classroom teaching focus on content covered by high stakes testing. Many spend a great amount of time giving practice tests, while others feel pressured to cheat. Now is the time for educational leadership and new policies for better assessment (Paris & Urdan, 2000).

In 1999, the Mississippi Student Achievement Act was enacted and the Mississippi Curriculum Test (MCT) was created. The Mississippi Grade Level Testing Program consists of the Mississippi Curriculum Test in reading, language, and mathematics in grades two through eight; a writing assessment in grades four and seven; and a norm-referenced test (*Terra Nova*) in reading/language arts and mathematics in grade six. Science assessments in grade five and grade eight are currently being developed and implemented. Benchmarks, passing scores in reading, language, and mathematics, have been established in grade three and seven to help determine whether students have the knowledge and skills needed to be successful at the next grade level. Grades three and seven were chosen as benchmark grades in order to ensure that students do not go on to middle or high school without the basic skills needed. Students must successfully meet benchmarks in reading, language, and mathematics to be promoted to the next grade level.

Statement of the Problem

This study was designed to examine teachers' use of actual teaching practices for raising student achievement on the Mississippi Curriculum Test (MCT) in comparison to their ideal teaching practices for raising student achievement on the MCT. From the national and state level to the classroom level, student accountability is becoming a major issue in education (Heubert & Hauser, 1999). With state mandated testing in Mississippi,

student performance on the MCT is being used to rate districts, teachers, and administrators. Curriculum is changing and teachers are tailoring their instruction so that a major emphasis is placed on the Mississippi Curriculum Tests. Differences exist in actual teaching practices to raise student achievement on the Mississippi Curriculum Test and ideal teaching practices to raise student achievement on the Mississippi Curriculum Test. Furthermore, the study sought to determine if the ideal and actual teaching practices aligned with constructivist or behaviorist teaching practices.

Research Questions

In view of the accepted fact that educational reforms of high performance standards supplemented with high stakes testing alter teachers' instructional practices, the following questions were developed to examine the relationship between teachers actual and ideal practices for raising student achievement on the Mississippi Curriculum Test:

1. How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
2. How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
3. Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?
4. How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?

Justification of the Study

Assessing student achievement with standardized tests is politically and publicly expedient. Test scores quantify student achievement and are easily reported and supposedly understood by the media and public. Politically, this rise in scores validates the reform and generally helps with the re-election of the legislation sponsors. Critics argue that this initial rise in scores is not a reliable measure. They attribute the rise to test familiarity on part of the students and teachers rather than increased student achievement (Goetz & Duffy, 2003). This study is significant because it investigates the relationship between teachers actual teaching practices to raise student achievement versus teachers ideal teaching practices to raise student achievement on the MCT, thereby detailing to Mississippi teachers and administrators teaching practices that relate to improved student achievement on the Mississippi Curriculum Test.

Limitations of the Study

This study was limited to a population of 89 sixth, seventh, and eighth grade teachers in the Rankin County School District whose students took the Mississippi Curriculum Test during the Spring of 2006. This study was specific to one school district in Mississippi and the findings cannot be generalized to other school districts.

Definition of Terms

The following terms are used throughout this study and the meaning and understanding of these terms are critical for the reader. The definition of these terms are provided for explanation and understanding in this study:

1. Mississippi Curriculum Test: The Mississippi Grade Level Testing Program which consists of tests in reading, language arts, and mathematics in grades 2-8; a writing assessment in grades 4 and 7; and a norm referenced test (TerraNova) in reading/language arts and mathematics in grade 6.
2. Constructivist Teaching Methods: Teaching and learning occur in a social context as a dynamic process rather than as a preconceived one. The learner must use his or her own previous knowledge about a particular subject to further learning (Dixon-Krauss, 1996).
3. Behaviorist Teaching Methods: Teaching focuses on objectively observable behaviors. Behaviorist teachers define learning as nothing more than the acquisition of new skills. Behaviorist teaching methods are sometimes referred to as "drill and skill" followed by assessment (Entwistle 1981).
4. Ideal Teaching Methods: These are the instructional methods that teachers would use if there were no Mississippi Curriculum Test to raise student achievement based on their survey responses.
5. Actual Teaching Methods: These are the instructional methods that teachers actually use in their classrooms in an effort to increase student achievement on the Mississippi Curriculum Test based on their responses on surveys.
6. High Stakes Testing: Any testing program whose results have important consequences for students, teachers, schools, and or districts if specific performance levels are not achieved (Johnson and Johnson, 2002).

CHAPTER II

REVIEW OF RELATED LITERATURE

This study examined the ideal and actual teaching practices of the Rankin County School District's Mississippi Curriculum Test teachers in grades six through eight and whether the teacher's ideal or actual teaching practices align with behaviorist or constructivist teaching practices. A growing body of evidence suggests that high stakes testing can be a driving force behind fundamental change within schools (McNeil 2000). More and more states have developed high stakes accountability systems for students as well as for schools. Eight states have enacted promotion policies for students in the elementary and middle grades that incorporate state test scores. By 2008, high school students in 28 states will have to pass a state-administered test in order to graduate from high school, an increase of ten since 1996-97. Most states high school test assesses a students' general knowledge of English/language arts, and mathematics, and often science and social studies as well (Goertz & Duffy, 2003). Most of the graduation tests implemented in the 1980's and 1990's focused on basic skills (Functional Literacy Exam in Mississippi, 1995). Many of these states are in the process of revising their high school assessments so they will measure more rigorous curriculum. This literature review is separated into six categories:

1. The history and development of high stakes testing.

2. A discussion of the national high stakes testing movement including criticisms and arguments for the movement.
3. A discussion of the Mississippi high stakes movement.
4. Constructivist and Behaviorist philosophy and instructional methodologies.
5. A discussion of teachers' beliefs concerning high stakes testing.
6. Summary of the Literature review.

History and Development of High Stakes Testing

Our current state of faith in and reliance on tests has roots in the launch of Sputnik in 1957. Our (then) economic and political rival, the Soviet Union, beat the United States to space, causing our journalists and politicians to question American education with extra vigor. At that time, state and federal politicians became more actively engaged in the conduct of education, including advocacy for the increased use of tests to assess school learning (Kreitzner, Madaus, & Harvey, 1989).

The belief that the achievement of students in U.S. schools was falling behind other countries led politicians in the 1970s to investigate a minimum competency testing movement to reform our schools (Heubert & Hauser, 1999). States began to rely on tests of basic skills to ensure, in theory, that all students would learn at least the minimum needed to be productive citizens.

In 1983, The National Commission on Education released *A Nation at Risk* which called for an end to the minimum competency testing movement and the beginning of a high stakes testing movement that would raise the nations' standard of achievement drastically. Although history has not found the report to be accurate (Berliner & Biddle,

1995), it argued persuasively that schools in the United States were performing poorly in comparison to other countries and that the United States was in jeopardy of losing its global standing.

As a result of *A Nation at Rest,* state policymakers in every state but Iowa developed educational standards, and every state but Nebraska implemented assessment policies to check these standards (Quality Counts, 2001). In many states high stakes, or serious consequences, were attached to tests in order to hold schools, administrators, teachers, and students accountable for meeting the newly imposed high standards.

As part of a larger movement to raise expectations for all students attending public schools in the United States, state-mandated testing programs reportedly tied to new or revised state curriculum standards are currently being developed and used in a majority of states (Cimbricz, 2002). Over the past decade the states that have statewide assessment programs, almost all report having revamped or being in the process of revamping their state standards (Quality Counts, 2000).

The No Child Left Behind Act (NCLB) of 2001 (107th Congress) signed into law by President Bush on January 8, 2002, is a reauthorization of the Elementary and Secondary Education Act, the central federal law in pre-collegiate education. The ESEA, first enacted in 1965 and last reauthorized in 1994, encompasses Title I, the federal government's flagship aid program for disadvantaged students.

At the core of the NCLB Act is a number of measures designed to drive broad gains in student achievement and to hold states accountable for student progress. By the 2005-06 school year, states must begin testing students in grades 3-8 annually in reading

and mathematics. By the 2007-08 school year, all states must test students in science at least once in elementary, middle, and high school. The test must be aligned with state academic standards.

National High Stakes Testing Movement

Today's widespread implementation of standards-based reform and the federal governments' commitment to test based accountability ensure that high stakes testing will remain a central issue in education for the foreseeable future. High stakes testing can be defined as those tests that carry serious consequences for students or educators if specific performance levels are not achieved (Johnson & Johnson, 2002). The consequences from standardized achievement tests across the United States range from grade retention for school children to rewards or punitive measures for schools and school districts. The nature of standardized tests used in these situations poses validity problems for decisions. Numerous unintended negative consequences for students, teachers, curriculum and schools have been identified. Research has yet to establish clear benefits from these high stakes practices. Therefore, with little empirical support and financial and human costs/benefits, analysis suggests that the high stakes testing bandwagon, further fueled by No Child Left Behind, needs to be carefully evaluated before it continues to roll (Marchant, 2004). A position statement issued by the American Educational Research Association (AERA) in July of 2002 described high stakes testing in the following manner. Many states and school districts mandate testing programs to gather data about student achievement over time to hold schools and students accountable. Certain uses of achievement tests results are termed high stakes if they carry serious consequences for

students or educators. Schools may be judged according to the school-wide average scores for their students. High school-wide scores may bring praise or financial reward; low scores may bring public embarrassment or heavy sanctions. For individual students high scores may bring a special diploma attesting to exceptional academic accomplishment; low scores may result in students being held back in grade or denied a high school diploma (AERA, 2002).

High stakes testing is a decidedly contentious subject, with most voices either strongly for or strongly against it (Balanced View, 2003). Supporters say that high stakes tests can bring greater coherence to the educational system by clarifying student performance expectations. They claim that high stakes tests provide a clear picture of what students need to learn to be successful and serve as a lever for holding all students and educators accountable to challenging standards. Proponents of measurement-driven reform have argued that if you test it, they will teach it and that assessment can guide the educational system to be more productive and effective (Popham, 1987). The proponents of measurement-driven reform add that the recent development of performance-based assessment offers a technology for assessing higher-order skills and deeper understanding of content. This development improved the early, and often maligned, minimum competency test that used only multiple-choice items (Baron & Wolfe, 1996).

Supporters also argue that high stakes tests can be a significant factor in closing the achievement gap that currently exists among students. Proponents of high stakes test argue that students work harder and learn more when they take high-stakes test, and

teachers are more motivated to focus on producing improved student achievement when tests have consequences.

Opponents of high stakes testing create adverse incentives that do not promote learning. They say that the pressure to produce gains in tests scores has led to test designs that exaggerate student achievement, teaching to the test, which may improve test-specific skills but also displace other skills important to real learning and narrows the curriculum. Curren (2004) argues that tests simply cannot provide us with the kinds of detailed knowledge of children's minds that advocates of high stakes testing assume. Opponents further contend that high stakes tests increase student grade retention and failure rates, result in higher dropout rates, are unfair to minorities, and lead to inappropriate labeling that can stigmatize students (Balanced View, 2003).

Despite the widespread belief that state-mandated testing contributes to the educational improvements at the local level, evidence to support this claim has yet to be established. The validity of increasing the use and importance of state-mandated tests in order to improve the schools is a long step further into the unknown. In sixty years of vast international research on school testing, the policy of emphasizing test performance in order to improve education has never been validated (Stake & Rugg, 1991).

Tests results can provide useful information about student progress toward meeting curricular standards (Abrams & Madaus, 2003). Studies have found that test preparation also serves as good teaching that raised student test scores; for example, metacognitive reading and writing practices, varied texts, rich classroom discussion, and student-centered writing assignments in rural Georgia language arts classrooms (Zigo, 2001).

Chicago studies found that the district's assessment office produced two test preparation booklets including test-taking skills, motivational techniques, and methods of assessing critical-thinking skills (Perlman, 2000). A study of nineteen Chicago elementary schools found that challenging, authentic assignments were also effective test preparation, contrary to the belief that standardized testing requires teaching reduced to drill of test items (Newman, Bryk, & Nagaoka, 2001). A case study of six exemplary writing teachers in high stakes test states Kentucky and Washington found excellent test preparation teaching practice was received enthusiastically by students, and well supported by professional development resembling Stiggins' (1998) student centered assessment (Stiggins, 1998; Wolf, Wolf & Carpenter, 2002).

Researchers have taken at least five approaches to studying testing: (a) compare with learning and assessment theory, (b) compare to other countries, (c) observe classroom teaching, (d) survey and interview, and (e) correlate test policies and perform secondary data analysis. Much of the movement toward standards-based reforms was motivated and supported by the comparison of testing and performance of students in the U.S. with those in other developed countries, for instance on the Third International Mathematics and Science Study (TIMMS) (Stigler & Heibert, 1999); or simply comparing the U.S. testing regime with those in other countries, general finding the U.S. testing to be far less rigorous and not as oriented to mastery of curriculum (Eckstein & Noah, 1992; Phelps 1996).

The most recent round of high stakes testing grew out of the standards-based reform movement that began in the early 1990s. All 50 states embarked on educational

initiatives related to high standards and challenging content. A central focus of these efforts was to establish a common set of academic standards for all students. Other components of these standards-based reforms included assessment that measured student performance and accountability systems that are at least partially focused on student outcomes. Although assessment has always been a critical component of the education system (Glaser & Silver, 1994), the growing focus on standards and accountability has dramatically changed the role of tests in the lives of students, their teachers, and their schools. While teachers continue to use the results of classroom and other types of tests to plan instruction, guide student learning, calculate grades, and place students in special education programs, policy makers are turning to data from large-scale statewide assessments to make certification decisions about individual students, and to hold schools and school districts accountable for the performance and progress of their students (Goertz & Duffy, 2003). This reform gave rise to state-level accountability systems characterized by four components (Hamilton, Steeher, & Klein, 2002):

- standards that communicate the desired knowledge and skill;
- tests designed to measure the progress toward achieving the content standard;
- performance targets which identify criteria used to determine whether schools and students have reached the desired level of achievement; and
- incentives, such as rewards and sanctions based on the attainment of performance targets.

Every state now has instituted a statewide testing program and curricular standards or frameworks except Iowa, where local districts develop their own standards and benchmarks. The state tests vary in difficulty, content item format, and especially the sanctions attached to test performance. For example, Massachusetts, New York, Texas, and Virginia use test results to award high school diplomas. Other states - - Missouri, Rhode Island, and Vermont, for example - - use students' performance on the state test to hold schools, rather than students, accountable. Still others, including Iowa, Montana, Nebraska, and North Dakota currently attach no sanctions to test performance (Edwards, 2003).

The high stakes testing movement of today relies on the symbolic importance of test scores. Forty-eight states currently require schools to provide the public with report cards (Edwards, 2003). Goldhaber and Hunnaway (2001) found that the stigma associated with a school receiving a low grade on the state report card was a more powerful influence on Florida teachers than were school-level sanctions imposed for poor test results.

Today, more students test, with greater frequency, and with a larger number of tests than during any other time in the history of the United States. Over the last three decades we have also relied increasingly on high stakes tests, to which severe consequences have been attached, to reform our schools (Kohn, 2000; Sacks, 1999). Advocates oftesting argue that attaching stakes to testing is necessary to hold schools accountable, rewarding high performing schools, and identify failing schools so they may be targeted for extra help. This is a key element of President Bush's NCLB Act.

There is mounting evidence that gains on state tests are not necessarily indicators of higher achievement. An experimental study done by Koretz, Linn, Dunbar and Shepard (1991) revealed that performance on a high stakes exam did not generalize to other tests for which students had not been specifically prepared. Klein, Hamilton, McCaffrey, and Stecher (2000), investigated the performance gains celebrated in Texas. They compared the Texas Assessment of Academic Skills (TASS) scores with the scores taken from the NAEP and found the dramatic increase in TASS was not evident on the NAEP as had been previously purported. Amerin and Berliner (2002) found a similar pattern as they examined increases on 18 states high stakes exam patterns on other tests that tested similar knowledge constructs (e.g SAT, ACT, NAEP, and AP Exams). All researchers found that significant increases on high stakes exams did not transfer over or generalize to these other exams, challenging the notion that high stakes tests caused increases in academic achievement. Fullan (2001) reported that high stakes accountability systems can and do get results, but the results are not particularly deep or lasting.

Findings from the Balanced View (2003), support an argument in favor of high stakes testing:

- Student performance generally improves after high stakes accountability reforms are introduced in states and districts.
- High stakes testing can help to narrow the achievement gap.
- Effects of high stakes testing on student retention or high school graduation rates are unclear. To date, there is no solid evidence that high stakes testing either improves or worsens graduation or

student retention rate.

- High stakes testing leads to an increased emphasis on tested content.
- The impact of high stakes testing on instruction depends on the format of the test. Tests that measure complex concepts and extended reasoning encourage stimulating instruction, and vice versa.
- The impact of high stakes tests comes at a relatively low cost.

The American Educational Research Association (AERA), in their 2000 position statement concerning high stakes testing, levied criticism against the use of high stakes testing. Decisions that affect individual students' life chances or educational opportunities should not be made on the basis of test scores alone. Other relevant information should be taken into account to enhance the overall validity of such decisions. As a minimum assurance of fairness, when tests are used as parts of making high stakes decisions for individual students such as promotion to the next grade or high school graduations, students must be afforded multiple opportunities to pass the test. More importantly, when there is credible evidence that a test score may not adequately reflect a students' true proficiency, alternate acceptable means should be provided by which demonstrate attainment of the tested standard (AERA, 2000).

The visible impact of high stakes testing is that it causes stress on teachers. Whether this stress leads to overall improvements in academic proficiency is still the source for further study. Research has shown that significant improvement in the Texas

Assessment of Academic Skills math scores has taken place among eight graders (Linton & Kester, 2003). Likewise, Good, Aronson & Inzlicht (2003) found that by messages of empowerment provided in the context of mentoring environments can increase student achievement. Teachers do not oppose being held accountable, but they oppose the way such measures have implemented from state to state (Jones & Egley, 2004).

All studies reviewed consistently confirm that state-mandated testing does matter and does influence what teachers do and say. But while these studies suggest that the instructional methods teachers employ, the materials they use, and the activities they plan are, to some degree, shaped by the form and content of state-mandated tests and the state objectives that accompany them, there appears to be no clear or consistent pattern of influence. As such, the research that is currently available presents a picture more complicated than clear and begs further elucidation.

Assessing achievement from samples of students can produce useful information about what students know and can do about performance changes over time. In contrast, high stakes testing of all students overemphasizes limited aspects of education at the expense of arguably more important goals. High stakes tests can entail harmful direct effects for some individuals and harmful side effects for others (Jones, 2001).

A review of research on high stakes testing reveals some disturbing unintended consequences: unethical behavior in retention and classification of students with learning disabilities (McGill-Franzen & Allington, 1993); political pressure influencing score inflation (Shepherd, 1991); resentment, dissonance and alienation in teachers (Smith, 1991); and penalization of low-achieving schools (Darling-Hammond, 1991). Schools

learned quickly that funding and political access rides on acceptable scores on standardized tests, and sadly are often likely to make ethically questionable decisions based on fear (Helfenbein, 2004).

Some of the studies indicate that the effects of statewide testing vary according to the stakes involved. Because high stakes tests and/or testing programs are used for important decisions, these tests are assumed to have more power than low stakes tests and/or testing programs to modify local behavior (Heubert & Hauser, 1999; Madaus, 1998). Following this line of argument, high stakes tests are more likely to impact, if not constrain, teachers' beliefs and practices. Brown (1992), Smith et al. (1989), and Smith (1991), for example, argue that teachers from states with high stakes state-mandated testing (e.g. Arizona, Illinois, New York, and Tennessee) reported and were observed tailoring their instructional methods, materials, and activities to the type of performance elicited by the state tests. Under these conditions, Brown (1992), Smith et al. (1989), and Smith (1991), assert that the state tests became more the goal of instruction, rather than the means to assess it. These researchers contend that the attention the media, the state department of education, and people at the various local level (administrators, principals, school board members, parents, and community members) pay to the test scores may catapult states into even higher stakes status. This group of researchers argue that high stakes state-level testing serves to constrain, if not homogenize, instruction.

High stakes testing and accountability policies are here to stay. The challenge for policymakers and practitioners is to make the system work in ways that benefit students and their teachers. Well-designed assessments and accountability systems can focus

attention on schools and students who need the most help, motivate students and educators, and foster the development of better curriculum and instruction (Goertz & Duffy, 2003).

Mississippi High Stakes Testing Movement

As a nation, state, and a community, we want the best for our children. Education is an investment in their future and plays a significant role in our hopes and dreams for them. Today's students must be prepared to enter an increasingly competitive world. For this reason, Mississippi has strengthened student assessment, school accreditation and accountability standards in an effort to raise student achievement. It was not until 1970 that the State Board of Education assumed the responsibility of accreditation in Mississippi, thus adding a legal dimension to the previously voluntary process. The accreditation law of 1970 gave the State Board of Education autonomy in prescribing standards and procedures for accreditation of schools and placed the responsibility of enforcing the law on the Mississippi Department of Education. Though the accreditation system was now legal, emphasis still remained on quantitative factors as the means by which school improvement would be accomplished.

The 1980's issued forth a decade of educational reform in Mississippi and ultimately school accreditation, marking a shift from quantity to quality. Governor William Winter initiated the accountability movement with the Education Reform Act of 1982. This landmark legislation created the Commission on School Accreditation to

assure quality in all of Mississippi's public schools. This Commission demanded performance-based school accreditation.

In 1994, education legislation strengthened the emphasis on student achievement and issued the directive that the Mississippi Board of Education fortify and expand its performance-based accreditation system. It required more rigorous minimum standards and strict accountability measures for districts that fail to meet those minimum standards.

The Mississippi Student Achievement Improvement Act of 1999 (Senate Bill 2156) mandated that the State Board of Education implement a performance-based accreditation system for individual schools and school districts that included: high expectations for students, high standards for all schools, strong accountability for results, a process to implement accountability, and the development of a Comprehensive Student Assessment System. Annual performance standards as well as measures for that performance were set for each school in the state.

Additional legislation passed in 2002. Senate Bill 2488 established new accountability standards, making accreditation levels reflective of student performance at the school level rather than the district level. Schools failing to meet these accreditation standards through established growth expectations and grade-level proficiency were to be designated as Priority Schools. School performance levels would be based on two criteria: meeting an annual growth expectation in student achievement and the percentage of students scoring at the basic and proficient level on state-mandated testing. The legislation would also reward schools based on their

performance and offer intensive technical assistance to schools not meeting accreditation standards. For the first time, everyone (teachers, parents, students, principals, and superintendents) would be held accountable.

The prestigious *Princeton Review* recently ranked Mississippi's assessment system sixth in the nation. The strength of this new system is the emphasis on criterion-referenced tests designed to measure what is being taught in Mississippi classrooms. A norm-referenced test will continue to be administered in grades six, seven, and eight providing data to compare the performances of students in Mississippi with the performance of students in other states, ensuring that Mississippi students are competitive at the national level (Mississippi Department of Education, Office of Innovation and School Improvement, 2004).

Behaviorist Philosophy and Methodologies

The behaviorist philosophy and methodologies are the earliest in the instructional design. Behaviorism started in 400 BC with Aristotle. Behaviorism is the basic learning theory underlying most traditional teaching in American schools. Behaviorism was actually the first psychology that looked at human behavior and how humans actually learned (Ormrod, 1995). According to behaviorist's principles, it is the teacher's job to transmit knowledge. The behaviorist approach to learning evolved from the research of psychologist such as John B. Watson, who coined the term behaviorism, and B.F. Skinner. It focuses on how the presentation of material influences student behavior (Weinstein & Mayer, 1986). Skinner is considered the grandfather of behaviorism. He generated much of the experimental data that is the basis of behavioral

learning theory. He and other behavioral theorists were concerned mainly with observable indications of learning and what those observations could imply for teaching. They concentrated on observable cause and effect relationships. Skinner and others viewed the teacher's job as modifying the behavior of students by setting up situations to reinforce students when they exhibit desired responses.

Behaviorists viewed learning as a sequence of stimulus and response actions in the learner. They reasoned that teachers could link together responses involving lower-level skills and create a learning chain to teach higher-level skills. The teacher would determine all of the skills needed to lead up to the desired behavior and make sure students learned them all in a step-by-step manner (Roblyer, Edwards, & Havriluk, 1997). Skinner (1974) theorized that a job should be broken down into tasks and that students learn best in linear step-by-step format. Skinner claimed that repetition and constant reinforcement of the step-by-step processes were essential for students to learn skills properly (Entwistle, 1981).

Addressing instructional needs from a theoretical perspective of behaviorism proposes a stimulus—response approach to designing instruction for learners. Behaviorism is an orientation to learning emphasizing methodically time-controlled events and constructed environmental conditions intended to bring about particular responses. Merriam and Caffarella (1999) identified three assumptions all behaviorists such as Mager, Skinner, Thorndike, and Watson share about the learning process. First, observable behavior rather than internal thought process is the focus of study; in particular, learning is manifested by a change in behavior. Second, the environment

shapes behavior; what one learns is determined by the elements in the environment, not by the individual learner. And third, the principles of contiguity and reinforcement are central to explaining the learning process.

One of the key areas where behaviorism impacts instructional design is in the development of instructional objectives. Morrison, Ross, and Kemp (2001) define an instructional objective written from a behavioral perspective as a precise statement that answers the question, What behavior can the learner demonstrate to indicate that he or she has mastered the knowledge or skills specified in the instruction? Mager (1984) determined that performance, conditions, and criterion are the elements of instructional objectives. The strength of instructional design grounded in behaviorism is that when there are specific goals to be met, the learner is focused clearly upon achieving those goals whenever there are cues to prompt the learner's behavior. The behavioral theorists felt as though the teacher's job was to establish situations which would reinforce desired behavior from their students. The behaviorist would expect the teacher to predetermine all the skills they felt were necessary for the students to learn and then present them to the group in a sequenced manner (Conway, 1997). In summary, an implication of behaviorism on instructional design is built upon the concept that learning is based on mastering a set of behaviors that are predictable and, therefore, reliable. Thorough instructional and learner analysis and precise instruction will lead to desirable and displayable skills.

Constructivist Philosophy and Methodologies

Constructivism as a learning theory goes back a number of decades (Phillips, 2000). Constructivist teaching as a theory or practice, however, has only received attention for approximately one decade. Constructivist philosophy and methodologies suggest that learning is an active process in which learners construct new ideas or concepts based on their current or past knowledge. The learner selects and transforms information, constructs hypothesis, and makes decisions, relying on a cognitive structure to do so. Cognitive structure provides meaning and organization to experiences and allows the individual to go beyond the information given. Constructivist learning has emerged as a prominent approach to teaching during this past decade. The work of Dewey, Montessori, Piaget, Bruner, Vygotsky, and others provides historical precedents for constructivist learning theory. Constructivism represents a paradigm shift from education based on behaviorism to education based on cognitive theory.

Jean Piaget (1977) asserts that learning occurs by active construction of meaning, rather than by passive recipience. He explains that when we, as learners, encounter an experience or a situation that conflicts with our current way of thinking, a state of disequilibrium or imbalance is created. We must then alter our thinking to restore equilibrium or balance. To do this, we make sense of the new information by associating it with what we already know, that is, by attempting to assimilate it into our existing knowledge. When we are able to do this, we accommodate the new information to our old way of thinking by restructuring our present knowledge to a higher level of thinking. Fosnot (1996) has provided a recent summary of these theories and describes

constructivist teaching practice. Behaviorist epistemology focuses on intelligence, domains of objectives, levels of knowledge, and reinforcement. Constructivist epistemology assumes that learners construct their own knowledge on the basis of interaction with their environment. Four epistemological assumptions are at the heart of constructivist learning;

1. Knowledge is physically constructed by learners who are involved in active learning.
2. Knowledge is symbolically constructed by learners who are making their own representations of action;
3. Knowledge is socially constructed by learners who convey their meanings to others;
4. Knowledge is theoretically constructed by learners who try to explain things they don't completely understand.

Research indicates that few classroom teachers plan using these models anyway (Morine-Dershimer, 1979; Zahorik, 1975) and usually because of administrative pressure if they do (McCutcheon, 1982). However, few approaches are available for working with prospective teachers or new teachers to organize for learning. Simon (1995) and Steffe and Ambrosio (1995) describe their processes of planning for constructivist learning and constructivist teaching respectively, but these methods are complex and represent the thinking of experienced teachers.

Most conventional teacher planning models are based on verbal explanations or visual demonstrations of a procedure or skill by the teacher which is then combined with

practice of this method or skill by the student. Much of this approach seems consistent with the description of classroom activities reported in a major research study titled A Place Called School conducted years ago by Goodlad (1984). He found that most of the time, most of the teachers talk to the kids. Students explained that physical education, fine arts, or industrial arts were their most interesting classes because they actually got to do something. They were active participants in learning rather than passive recipients of information. This is the primary message of constructivism; students who are engaged in active learning are making their own meaning and constructing their own knowledge in the process. Research shows that constructivist teaching has only been widely accepted since the early 1980's (Steffe & Gale, 1995). Cognitive psychology has provided a basis for constructivist teaching. Jean Piaget (1971) was one of the early contributors to this research. He suggested that new learning experiences are received through existing knowledge, a process of assimilation and accommodation. Learners construct knowledge as they attempt to bring meaning to their experiences. Glasserfield (1995) was another contributor of constructivist research. He explained that constructivism is a theory of rational knowing. Learners construct knowledge themselves on the basis of subjective experiences.

In the past few decades, teachers have shown a rapid movement towards constructivism. Results from a study conducted by researchers for *American Scientist* showed that the past few decades have not been kind to the behaviorist school (Robbins et al., 1998). There have been many studies supporting the idea that constructivism works best in the facts-based, problem-solving learning. Constructivist teaching emphasizes

thinking, understanding, reasoning and applying knowledge while it does not neglect basic skills. In their book, *The Young Child as a Scientist: A Constructivist Approach to Early Childhood Science Education*, Chaille and Britian (1991) point out in a constructivist classroom the teacher is no longer the transmitter of knowledge but the facilitator of knowledge. The teacher as controller of students is a myth (Tobin and Dawson, 1992). The facilitator of learning needs to keep in mind that instruction will vary depending on the learner's prior knowledge, current interest, and level of involvement (Chaille and Britian, 1991). A skillful teacher will understand that students have existing knowledge, which may be incomplete or wrong, but will guide perceptions and initiate understandings (Tobin and Dawson, 1992).

A Discussion of Teacher Beliefs Concerning High Stakes Testing

A high-pressure atmosphere in which jobs and bonuses, not to mention the schools reputation and even real estate values, are at stake can cause teachers to alter best practices and even to engage in unethical behavior. High stakes, high-pressure tests have created many problems over the last several years (Goldberg, 2004). Because of the pressure on teachers to produce good results, it is not surprising that we have seen scandals related to testing over the past five years, everywhere from Michigan and Maryland to New York City and Texas. The National Board on Educational Testing and Public Policy (2003) at Boston College conducted an extensive study to determine the effects of high stakes testing on teacher practices. The study found that the influence of the test is greater as the stakes increase, with 40 percent of teachers in high stakes states, such as Mississippi, reporting that tests influence their teaching on a daily basis (Lewis,

2003). Teachers in high stakes testing situations felt more pressure to have their students perform well, and therefore, more closely aligned their teaching to the test. These findings suggest that tests often affect instruction in ways that directly contradict the state educational reform policies intent to raise standards (Schroeder, 2003).

Teachers have responded to the pressure to improve scores on the state tests, particularly in high stakes settings, by spending more classroom time preparing students specifically for the state test (Abrams, Pedulla, & Madaus, 2003). In Maryland 88 percent of teachers surveyed felt they were under pressure to improve student performance on the state test (Koretz, Mitchell, Barron, & Keith, 1996). An even larger proportion of Kentucky teachers, 98 percent, responded similarly when asked the same question (Koertz et al., 1996).

An increased emphasis on test preparation is one of the possible outcomes of the pressure teachers feel to improve student performance. Of 470 elementary teachers surveyed in North Carolina, 80 percent indicated they spent 20 percent of their total time practicing for the end of grade test (Jones, et al., 1999). Similarly, a survey of reading teachers in Texas revealed that on average teachers spent 8-10 hours per week preparing students for the Texas Assessment of Academic Skills (TASS) (Hoffman, Assaf, & Paris, 2001). The most common test preparation activities reported by Texas teachers included demonstrating how to mark the answer sheet correctly, providing test-taking tips, teaching test-taking skills, teaching or reviewing topics that would be on the test, and using commercial test-preparation materials and tests from previous years (Hoffman et al., 2001).

Teachers argue that the high stakes nature of tests like the Mississippi Curriculum Test is inappropriate because too many variables affect student test performance, school districts have inequitable resources, and the exam is biased and statistically unreliable (Boris-Schacter, 2001). Teachers in both high- and low-stakes states when surveyed (Abrams, Pedulla, and Madaus, 2003) rejected the notion that test scores should be used to hold schools and teachers accountable, but responded more favorably when asked about student accountability. For example, 66 percent of teachers from high stakes states and 77 percent of teachers from low-stakes felt awarding school accreditation based on test results were inappropriate. Similarly, 82 percent of teachers from high stakes states and 90 percent of teachers from low-stakes states felt it was inappropriate to evaluate teachers and administrators on the basis of student test results. In August 2002, The National Commission of Teaching and America's Future (NCTAF) presented evidence that the teacher shortage is not so much a problem of attracting qualified teachers than a problem related to a nationwide teacher retention crisis. Their findings are based on a study conducted by Dr. Richard Ingersoll at the University of Pittsburg, which estimates that almost a third of America's teachers leave the field during their first three years of teaching, and almost half leave after five years (Hargrove, Walker, Huber, Corrigan, & Moore, 2004). Teachers feel extremely frustrated when they are expected to teach one way yet their students are assessed in ways that are inconsistent with these goals. Test based reform erects barriers that prevent teachers from implementing what they believe is the best practice in education. It seems that the more the state continues to tell teachers how and how not to teach, the worse schools become. If the state would simply give

teachers the freedom to teach, the schools would produce better students with a better education (Yarbrough, 1999).

The studies reviewed suggest that while state testing does matter and influences what teachers say and do, so too, do other things, such as teachers' knowledge of the subject matter, their approaches to teaching, their views of learning, and the amalgam of experience and status they possess in the school organization. As a result, the influence state-mandated testing has (or not) on teachers and teaching would seem to depend on how teachers interpret state testing and use it to guide their action. Moreover, the influence state testing may or not have on teachers and teaching extends beyond individual perceptions and actions to include the network of constructed meanings and significance extant with particular educational contexts. How tests matter then is not always clear and simple.

Summary of Literature

A review of the literature indicated that state-mandated high stakes testing has both positive and negative influences on teacher instruction. The evidence that suggests that the influence has been more positive than negative is more difficult to obtain. The prevailing message in the literature review is that high stakes testing will eternally be a part of the educational process. Studies have indicated continually that state-mandated tests do matter to teachers and do influence what they say and do in their classrooms. There is a large group of educational specialists that argue for the use of constructivist teaching methodologies in today's classrooms. Others contend that behaviorist teaching methodologies are the prescription for increased student achievement in the classroom. It

is clear that there are serious concerns among scholars and practitioners about the effects of high stakes testing. Other than McNeil (2000) and Smith et al. (1989), few researchers have actually gone into the classroom. Few have been able to document first hand the negative effects of high stakes tests in classroom.

The use of high stakes testing across our country to assess student achievement and performance is a highly controversial issue. As our national and state lawmakers continue to set high stakes testing as part of the state assessment and accountability models it is evident that studies should continue. Therefore, it is important to understand teacher's ideal instructional methods and to know if the end-of-grade tests alter teacher instructional methods. Once this is determined, it is important to understand if actual or ideal methods align to constructivist or behaviorist teaching methods.

CHAPTER III

METHODOLOGY

This purpose of this study was to examine the ideal and actual teaching practices of sixth through eighth grade teachers in the Rankin County School District in an effort to raise student achievement whose students take the Mississippi Curriculum Test. It was also designed to examine whether ideal or actual teaching practices align with constructivist or behaviorist teaching practices.

The results of this study serve to examine how teacher's instructional practices change as a result of the state-mandated Mississippi Curriculum Test. This information will benefit school administrators and teachers in the planning and implementation of curriculum standards addressed in the Mississippi Department of Education frameworks that encompass the material tested on the Mississippi Curriculum Test.

This chapter includes the research questions studied, research design, population, data collection instruments, validity and reliability, procedures, and data analysis.

Research Questions

In view of the accepted fact that educational reforms of high performance standards supplemented with high stakes testing change teachers' instructional practices, the purpose of this study produced the following research questions:

1. How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
2. How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
3. Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?
4. How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?

Population

The population for this study consisted of 89 sixth, seventh, and eighth grade teachers whose students were being prepared to take the Mississippi Curriculum Test in the Rankin County Public School District. There are 1158 certified teachers in the Rankin County School District including 89 of the 102 sixth, seventh, and eighth grade teachers whose students were being prepared for the MCT. Rankin County is the third largest district in the state with a student enrollment over 17,000. This district is comprised of eight schools zones. Each school zone has from one to four elementary schools, one middle school, and one high school. The district also has one alternative school that serves grades six through twelve.

Academic standards are high in the Rankin County School District. Students consistently score well above state levels on standardized tests. In 2005, graduating seniors throughout the district had a 99% success rate on the U.S. History state mandated

test and a 99% success rate on the English II state mandated test. Another strong indicator of high academic standards throughout the District is the 21.3 average on the American College Test (ACT) in 2005. This compared to the state average ACT score of 19.7 and the national average score of 20.9. In the 2004-2005 school year, six Rankin County Middle Schools received an accreditation level from Mississippi Department of Education of Level 5, which is the highest level a school can receive. One school was a Level 4, and one school a Level 3. Accreditation levels are determined by student achievement on the Mississippi Curriculum Test.

Data Collection Instruments

This data was gathered from 89 of 102 sixth, seventh, and eighth grade teachers whose students take the Mississippi Curriculum Test utilizing three survey instruments (Appendix A.1, A.2, A.3). The surveys were used in a previous study (Williams, 2003) and permission was obtained to use the surveys. The first survey entitled "Survey of Instructional Practices Required of the MCT" (Appendix A.1) requested their choices based on the state-mandated requirements for raising student achievement on the Mississippi Curriculum Test. The second survey entitled "Survey of Instructional Practices Not Required of the MCT" (Appendix A.2) requested their responses on their ideal practices for improving student achievement if there were no Mississippi Curriculum Test. Nineteen statements were proposed in the traditional or behaviorist teaching practices and eleven questions proposed in the modern teaching or constructivist practices. Survey statements that indicate a teacher's instructional practices align with the behaviorist teaching methods are: 1, 3, 4, 6-9, 11, 12, 14-16, 18, 20-25. Survey

statements that indicate a teacher's instructional practices align with constructivist teaching methods are: 2, 5, 10, 13, 17, 19, 26-30. Teachers then answered a third survey instrument entitled "Teacher Perceptions of the MCT" (Appendix A.3). On this survey, teachers were also asked to respond to statements about the Mississippi Curriculum Test based on their experiences by answering a survey that includes eighteen questions.

Validity and Reliability

A college professor, a superintendent with over thirty years in education, and a teacher who serves as a math department chair and has over twenty years in education has validated the instruments used in this study. This instrument has been validated in a previous study. The survey instruments were piloted to test its reliability through the test-retest method. A group of twenty sixth through eighth grade teachers, independent of the study, was surveyed. After one week the teachers were surveyed for the second time. A Pearson-r test was administered to measure the correlation between the two variables. The correlation between two variables reflects the degree to which the variables are related ($r = .81$).

Procedures

Before beginning this study began, the researcher applied for and received approval from the Institutional Review Board (Appendix B) to conduct this study. Permission also was obtained from the Rankin County School District Superintendent of Education (Appendix C) before contacting the participants who completed the questionnaires. The researcher met with building level principals to discuss the study and surveys used to collect data. The building level principals met with teachers at faculty

meetings and during teachers planning periods to distribute and explain the study. The building level principal at each school issued each participant a consent form to sign indicating his or her willingness to participate in the study. An informed consent (Appendix D) was issued to each teacher explaining the confidentiality of their participation and the purpose of the study.

Data related to teacher's reactions to raising student achievement on the Mississippi Curriculum Test were obtained. Data was also obtained from teachers concerning their experiences with the Mississippi Curriculum Test.

Data Analysis

The teachers' responses were assigned a quantitative value. The survey used a five point Likert scale consisting of the following response choices: 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Neutral", 4 = "Agree" and 5 = "Strongly Agree". The researcher performed a two-way Measures Analysis of Variance (ANOVA), supported by a tukey post hoc comparison on the scale scores of the two questionnaires to determine if there was a statistically significant difference between teachers' ideal and actual teaching practices to improve student achievement on the Mississippi Curriculum Test. The assumptions for two-way ANOVA assumes that the subjects are assigned to the groups randomly and independently, that the dependent variable is normally distributed, that the population variances are equal, and that the dependent variable is continuous. Analysis was also computed to determine if the survey respondents teaching practices aligned with constructivist or behaviorist teaching methods. This information is presented in tables using percentages, means and standard deviations. In order to determine the teachers'

perceptions about the Mississippi Curriculum Test, the researcher conducted general descriptive analysis and reported in terms of percentages, means and standard deviations.

CHAPTER IV

RESULTS

This study was designed to investigate teachers' classroom practices comparing their ideal teaching practices versus their actual teaching practices in preparing their students to take the Mississippi Curriculum Tests (MCT). The research also served to examine the teachers' orientation in relation to the behaviorist teaching domain and the constructivist teaching domain. In addition, the teachers provided their perceptions about the MCT and its use as an evaluative tool for measuring the effectiveness of their teaching practices and their students' academic performances.

For this study, 89 teachers were measured and four sets of measures were derived from the survey. These measures were the teachers' actual teaching practices, their ideal teaching practices, their behaviorist practices, and their constructivist practices. Each teacher was assigned four different scores for each of the four practices that were under investigation in this study. Based on their responses, the teachers were each assigned a score that represented (a) actual teaching practices, (b) ideal teaching practices, (c) behaviorist teaching practices and (d) constructionist teaching practices.

A Repeated Measures Analysis of Variance (ANOVA) was selected to analyze this data. In a repeated measures design, the means that are tested are derived from the same group of subjects measured for different purposes, rather than from different

subjects. In this design, comparison of the sum of squares and the mean square for the effect of the independent variable is the same as for the between subject designs. Factorial within subjects designs are an extension of the one-way within-subjects design (Tabachnick & Fidell, 2007). In this study, the means that were tested were derived from the same group of teachers and represent the mean scores of the teachers on the instrument measuring the teachers' ideal teaching practices, their actual teaching practices, their constructivist teaching practices, and their behaviorist teaching practices. The repeated measures design is a frequently used ANOVA design in which all the subjects provide measurements for the various levels of the independent variable. In this repeated measures ANOVA that is used in this study, the means that are tested are derived from the same group of teachers. The main advantage of the repeated measures design is that it controls for individual differences of the teachers in the study.

In the repeated measures design, since there is only one group of subjects serving in all levels of the independent variable, this process reduces, but does not eliminate the error component of the model. Subjects are still likely to respond differently over repeated measures due to changes in motivation, practice effects, and other extraneous influences. This reduction in error variance in the repeated measures design represents an increase in power. A reduction in time required to run the experiment may result since the researcher does not have to repeatedly give instructions to subjects in different groups. This type of design is also the most common experimental design used to study practice effects. In this case, the interest is in the teaching practices that can be noted in the

teachers' performances that results from their experiences with the task of preparing their students to take the MCT.

Assumptions of Repeated Measures ANOVA

The repeated measures ANOVA procedure expects the assumptions of random sampling and independence of sample, normality and homogeneity of within group variances. With the repeated measures design, there is always concern about the assumptions of homogeneity of within treatment variances and homogeneity of covariance between pairs of treatment levels. According to Gravetta and Wallnau (1999), the ANOVA is robust to violations of the normality assumptions, especially when the sample is large, and should not be a cause for substantial concern. Slight deviations from normality are tolerated, but even larger deviations are not expected to have great impact on the interpretation of the results (Kennedy & Bush, 1985). An initial method of testing these assumptions was to examine histograms and boxplots of the data and examine for skewness and kurtosis. The evidence provided did not appear to violate the assumption of normality. Violation of the assumption of homogeneity is more critical than violation of the other assumptions. To control for violation of these assumptions, the Geisser-Greenhouse correction was the procedure selected to correct the F ratio based on the amount of heterogeneity present.

The participating teachers were teaching in the sixth, seventh, and eighth grades at the time the survey was administered, and they were asked to respond to statements that identified their actual teaching practices, their ideal teaching practices, their behaviorist orientation and their constructionist orientation. The instruments used to measure the

actual and ideal practices comprised thirty items that also measured constructivist methods of teaching (11 items) and behaviorist methods of teaching (19 items).

Therefore, the purpose of this study was to examine teachers' use of actual teaching practices for raising student achievement on the Mississippi Curriculum Test (MCT) in comparison to their ideal teaching practices for raising student achievement on the MCT. To fully explore the problem of this study, the researcher developed four questions:

1. How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
2. How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
3. Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?
4. How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?

Data Analysis

Overall scores were computed for each section of the survey instrument (behaviorist teaching practices and constructionist teaching practices embedded within the teachers' actual and ideal practice practices). A Repeated Measures ANOVA was computed to examine differences between the teachers' ideal and actual teaching

practices in the behaviorist and constructivist domain. A Tukey post hoc comparison test was computed to investigate significant differences among the teachers.

Characteristics of the Teachers

Table 4.1 is a presentation of the demographic characteristics of the participants in this study. Appendix E provides a list of the demographic questions that the teachers were required to answer. Data were collected from 89 (87%) participants from the actual population (N=102). The majority of the teachers (91.0%) were female, and only 9.0% were male. The teachers were almost evenly distributed across all age groups except for the 60-69 age group represented by 13.5%. The 30-39 age group comprised the largest membership in the study group with 33.7%. The majority of the teachers taught English and Language (54.0%), and Mathematics (40.2%). The teachers were asked about their certification, and 24.7% of them responded that they were certified through the alternative route certification program, while 7.9% of them were certified through a provisional license. The remaining 67.4% of the teachers were certified through other means, primarily college teaching programs.

Years of teaching experience of the participants are also presented in Table 4.1. The largest group of participants (37.1%) was employed as a teacher for 5 years or less. The next largest group (25.8%) had between 6 and 10 years of experience, followed by those in the category of 11-15 years of experience (16.0%). An examination of the teachers' years of teaching in Mississippi revealed that 41.6% of them had been teaching for five years or less in Mississippi, 23.6% had been teaching between 6 and 10 years, and 18.0% had been teaching for 11-15 years. An examination of the years of teaching

experience in Rankin County revealed similar patterns, with 52.8% having 1-5 years of experience, 29.2% with 6-10 years of experience, and 11.2% with 11-15 years of experience. In each case, a small number of teachers have between 16 and 30 years of experience, and one person had over 30 years of teaching experience.

Table 4.1 Teacher Group Characteristics

Variable	Frequency	Percentage
Gender		
Males	8	9
Females	81	91
Age		
20-29	24	27
30-39	30	33.7
40-59	23	25.6
60-69	12	13.5
Years of Experience Teaching		
0-5	33	37.1
6-10	23	25.8
11-15	14	15.7
16-20	6	6.7
21-30	12	13.5
30+	1	1.1
Teaching Experience in Mississippi		
0-5	37	41.6
6-10	21	23.6
11-15	16	18
16-20	6	6.7
21-30	8	9
30+	1	1.1
Teaching Experience in Rankin County		
0-5	47	52.8
6-10	26	29.2
11-15	10	11.2
16-20	3	3.4
21-30	3	3.4

Table 4.1 (continued)

Variable	Frequency	Percentage
30+	0	0
Subject Taught		
English/Language	47	54
Mathematics	35	40.2
Computers	1	1.1
Special Education	1	1.1
Science	3	3.4
Teaching Certification Process		
Teaching Through Alternative Route Certification Program	22	24.7
Teaching Through Provisional License	7	7.9
Other	60	67.4
Grade Level Taught		
6	31	34.8
7	32	36
8	26	29.2

n = 89

Actual and Ideal Teacher Instructional Practices

This study examined four categories of teachers' instruction practices regarding the preparation of students for success in their academic environment; (1) teachers' actual practices in preparation for the Mississippi Curriculum Test (MCT); (2) teachers' ideal teaching practices that they preferred to apply if the requirements of the MCT did not dictate their current practice; (3) teachers' behaviorist teaching practices; and (4) teachers' constructivist teaching practices. The responses from the nineteen items relating to the behaviorist domain were grouped under actual behaviorist and ideal behaviorist.

Similarly, the responses relating to the 11 items representing the constructivist domain were grouped under actual constructivist and ideal constructivist. Four sets of measures were derived from this one group of teachers to determine if there were differences in their practices as they attempted to prepare their students to take the MCT. An overall mean score was computed for each of the four categories, and a Repeated Measures Analysis of Variance was conducted to examine for differences.

The teachers were asked to respond to the statements on the survey by selecting one of five choices from the Likert-scale instrument. Table 4.2 is a presentation of an interpretation of the use of the mean value. The mean value computed represents the teachers' mean score which was derived from assessing their choices based on the following likert scale: 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Neutral", 4 = "Agree", and 5 = "Strongly Agree". If the mean score was above 3, it was concluded that it indicated the teachers' preference to use that particular teaching practice. If the mean score was 3 or below 3, it could safely be assumed that such a score represented the teachers' non-support for using that particular teaching practice, since a score of "3" (neutral) or below ("disagree" and "strongly disagree") indicates no agreement with the construct that is measured.

Table 4.2 Interpretation of Means

Mean Value	Interpretation
>3	Teachers' preference for the use of the practice
≤3	Teachers' non-preference for the use of the practice

Research question one asked "How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ? This question examined if there were differences between the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test. Table 4.3 presents the results of a t-test that demonstrates that the mean scores of the teachers were very similar based on their ideal practices (3.1073) and their actual teaching practice (3.1000). The teachers' ideal and actual teaching practices occurred with almost the same frequency and did not differ significantly ($p < .05$). Actual scores of the teachers on each individual item can be found in the Appendix F through I.

Table 4.3 Preference of Teaching Practice Ideal and Actual Teaching Practice

	Mean	**SD**	**T**	**df**	**Sig.**
Actual	3.1000	.25179	-1.922	63	.059
Ideal	3.1073	.27216			

Research question two asked "How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ? This question examined if there were differences between the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test. Table 4.4 presents the results of a t-test that demonstrates that more teachers preferred the constructivist practices (3.6813) to the behaviorist practices (2.7596) for raising achievement on the MCT. According to the teachers, constructivist practices are more likely to be implemented, while behaviorist practices are less favored. The teachers' ideal

and actual teaching practices differed significantly ($p < .001$). Actual scores of the teachers on each individual item can be found in the Appendix F through I.

Table 4.4 Preference of Behaviorist and Constructivist Teaching Practices

	Mean	**SD**	**T**	**df**	**Sig.**
Behaviorist	2.7596	.41871	15.481	70	.000*
Constructivist	3.6813	.48050			

Research question three asked "Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?" Tables 4.5, 4.6, and 4.7 provide information that describes the repeated measures ANOVA computation. This analysis examined the teachers' ideal and actual teaching practices in relation to their behaviorist and constructivist teaching practices for preparing students to take the Mississippi Curriculum Test.

As seen in Table 4.5, under each frame of reference, significant differences were observed. The teachers implemented the behaviorist practices (mean = 2.7460) more often in actual teaching situation (practice) than their ideal teaching preference (mean = 2.3584). They implemented behaviorist practices more than they preferred to do so. The responses of the teachers also indicated that they implemented the constructivist practices (mean = 3.7316) less often in actual teaching situation (practice) than their ideal teaching preference (mean = 4.2092). They implemented constructivist practices less than they preferred to do so. The overall mean values showed that the teachers in this study were more oriented towards the constructivist teaching practices (mean = 3.9704) than the

behaviorist teaching practices (mean = 2.5522). These means were all examined for differences through the use of the repeated measures ANOVA that is reported below.

An examination of the scores in Table 4.5 reveal that a smaller number of teachers preferred the ideal behaviorist practices and a larger group of teachers preferred the ideal constructivist practices. More teachers' supported the use of the constructivist practices (3.7316) than the behaviorist practices (2.7460) for educating students. These means were all examined for differences through the use of the repeated measures ANOVA that is reported below.

Table 4.5 Preference of Teaching Practice and Actual Teaching Practice

	Ideal Mean	**SD**	**Actual Mean**	**SD**
Behaviorist	2.3584	.48608	2.7460	.43837
Constructivist	4.2092	.52823	3.7316	.45291

n= 89

The Mauchy's Test of Sphericity that examined equality of variances indicated that the assumption of equal variances could be accepted (p = .000). The Tests of Within-Subjects Effects presents the results of the ANOVA analysis. To control for violation of the assumption of normality, the Geisser-Greenhouse correction was the procedure selected to correct the F ratio based on the amount of heterogeneity present. The information in Table 4.6 shows that not much adjustment was made because the values for all four teaching practices are the same. This table, *Tests of Within-Subjects Effects*, presents the ANOVA results. The first section of the table presents four *F*-values. The first row presents the results if sphericity could be assumed. The next three values

represent different procedures for statistically adjusting the data to compensate for the lack of sphericity, when sphericity cannot be assumed. The most conservative of the three procedures is the Lower-bound test. As seen in the table, not much adjustment was needed since all four *F*-values (sphericity, Greenhouse-Geisser, Huynh-Feldt, and Lower bound) are the same.

The results of the Tests of Within- Subjects Effects displayed in Table 4.6, with sphericity assumed, showed that all the computed values had the same significance level (.000) and the same eta- squared value (.763). The partial eta squared value (.763) indicates that this is a medium to high effect that is significant. With the significance value less than .05, one can accept the fact that there are significant differences in teaching practices between the four types of procedures examined in this study. The partial eta-squared value of .763 indicates that this is a medium to high size effect.

Table 4.6 Tests of Within Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	sig.	Eta squared
Teaching Practice Sphericity Assumed	138.632	3	46.211	199.774	.000	.763
Greenhouse-Geisser	138.632	1.741	79.617	199.774	.000	.763
Huynh-Feldt	138.632	1.787	77.567	199.774	.000	.763
Lower Bound	138.632	1.000	138.632	199.774	.000	.763

The means of the teachers scores that reflect their ideal teaching practices, their actual teaching practices, their behaviorist teaching practices, and their constructivist

teaching practices are compared in the pair-wise comparisons in Table 4.7. The first section of this table presents the comparisons of the mean performance scores of teachers actual behaviorist practices, teachers actual constructivist practices, teachers ideal behaviorist practices, and teachers ideal constructivist practices. The second column shows the actual differences between each pair of means being computed. Our primary interest is in the significance column, because this indicates whether or not any given pair of means is significantly different. Since $p < .05$ in this column for all comparisons, one can conclude that teachers actual behaviorist practices was significantly different from that of teachers actual constructivist practices, different from teachers ideal behaviorist practices, and different from teachers ideal constructivist practices. This is also indicated by an asterisk being placed next to the mean difference value.

Upon examination of the other four comparisons in the second third and fourth row of this table, one would note that the differences between the means of each group of scores and each other are significantly different (P = .000), since $p < .05$ for this comparison in the significance column. These comparisons reveal that all four means are significantly different from each other.

In summary, teachers actual behaviorist practices differ significantly from teachers actual constructivist practices (p = .000), from teachers ideal behaviorist practices (p = .000), and from teachers ideal constructivist practices (p = .000). More importantly teachers actual behaviorist practices differed significantly from teachers ideal behaviorist practices (p = .000), and teachers actual constructivist practices differed significantly from teachers ideal constructivist practices (p = .000).

Table 4.7 Tukey Post Hoc Comparison

Practice	Practice	Mean Difference	Std. Error	Sig.	Lower Bound	Upper Bound
1						
	2	-.986*	0.095	0.000	-1.176	-0.795
	3	.388*	0.055	0.000	0.277	0.498
	4	-1.463*	0.093	0.000	-1.649	-1.277
2						
	1	.986*	0.095	0.000	0.795	1.175
	3	1.373*	0.091	0.000	1.192	1.554
	4	-.478*	0.057	0.000	-0.592	-0.364
3						
	1	-.388*	0.055	0.000	-0.498	-0.277
	2	-1.373*	0.091	0.000	-1.554	-1.192
	4	-1.851*	0.109	0.000	-2.068	-1.634
4						
	1	1.463*	0.093	0.000	1.277	1.649
	2	.478*	0.057	0.000	0.364	0.592
	3	1.850*	0.109	0.000	1.634	2.068

1 = Teachers' Actual Behaviorist Practices (Mean =2.7460), 2 = Teachers' Actual Constructionist Practices (Mean =3.7316),, 3 = Teachers' Ideal Behaviorist Practices (Mean =2.3584), 4 = Teachers' Ideal Constructionist Practices (Mean = 4.2092)

Actual and Ideal Behaviorist Teaching Practices

In response to research question three which asked if there was a difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices, all of the statements that were identified with the behaviorist domain were examined under each frame of reference. The researcher examined the actual and ideal teaching practices to see if they tend to align more with behaviorist teaching practices on each of the individual items contained in the survey. For this purpose, the data were transformed to ensure that the responses that signified

"Agree" and Strongly Agree" on each of these items were combined and recoded to signify a category called "Agree". If the difference between the teachers' actual practice and their ideal practice was positive, this indicated that the practice was more likely to be performed as a result of the requirements for the MCT, rather than their own teaching preference practice. If the difference between the teachers' actual practice and their ideal practice was negative, this indicated that the practice was less likely to be performed as a result of the requirements for the MCT, and more likely was the implementation of their own teaching preference practice. If there was no difference between the percent of teachers agreeing with the statement addressing their actual practice and their ideal practice, this indicated that the actual practice was in alignment with their own teaching preference practice.

The results in Table 4.8 present the teachers' responses in order of magnitude, from the greatest degree of difference between the actual practice and the ideal practice to the lowest degree of difference. The mean scores of the teachers are also provided in this table to make comparisons on the perceptions of the teachers about what they did in reality and what they preferred to do in increasing student achievement. In addition, the responses are also identified by the question number from the questionnaire. It would appear from the results that there was a great deal of difference between the teachers' actual practices and their ideal practices. Significant differences occurred in all areas except "My lesson planning would focus on the breadth of the curriculum rather than the depth of the curriculum."

The greatest difference between the actual practices and the ideal practices can be seen in the following:

1. Their assessment of student learning using standardized tests. When comparing their actual practice to their ideal practice, 23.5% fewer teachers indicated that would adopt that practice as their ideal practice;
2. Focusing instruction on content and skill acquisition. When comparing their actual practice to their ideal practice, 23.4% fewer teachers indicated that would adopt that practice as their ideal practice;
3. The use of direct instruction. When comparing their actual practice to their ideal practice, 19.3% fewer teachers indicated that would adopt that practice as their ideal practice;
4. Using content-centered instruction as opposed to student- centered instruction. When comparing their actual practice to their ideal practice, 17.9% fewer teachers indicated that would adopt that practice as their ideal practice

The least amount of difference can be seen in the following areas:

1. Use of rigid and sequential instruction. When comparing their actual practice to their ideal practice, no percent difference was observed in the teachers' preferences. Fewer numbers of teachers indicated that would adopt that practice as their ideal practice;

2. Maintaining a teacher-centered classroom. When comparing their actual practice to their ideal practice, 1.0% more teachers indicated that would adopt that practice as their ideal practice;
3. Focusing on the breadth of the curriculum rather than the depth. When comparing their actual practice to their ideal practice, 1.4% fewer teachers indicated that would adopt that practice as their ideal practice;
4. Focusing on skill acquisition rather than skill application. When comparing their actual practice to their ideal practice, 1.9% fewer teachers indicated that would adopt that practice as their ideal practice. The teachers' responses to all the statements regarding their actual behaviorist practices are located in Appendix F. The teachers' responses to all the statements regarding their ideal behaviorist practices are located in Appendix H.

Table 4.8 Actual and Ideal Behaviorist Teaching Practices

	Actual Practice			Ideal Practice			
Statements	**% A**	**M**	**SD**	**% A**	**M**	**SD**	**% diff**
I would assess students learning with standardized tests(24).	43.7	2.94*	1.05	20.2	2.4	1.03	23.5
I would focus instruction on content and skill acquisition (4).	87.4	3.85*	0.418	64	3.46	0.827	23.4

Table 4.8 (continued)

Statements	% A	M	SD	% A	M	SD	% diff
I would use direct instruction (1).	79.8	3.65*	0.783	60.5	3.27	1.06	19.3
My instruction would be content centered versus student-centered (11).	28.1	2.79*	0.935	10.2	2.28	0.896	17.9
I would limit the integration of curriculum from other subjects (3).	16.9	2.46*	0.966	5.6	2.02	0.852	11.3
My assigned seatwork would be drill and practice of skills (21).	45.5	3.06*	1.04	34.8	2.75	1.11	10.7
I would have the sole responsibility for student learning assessment (22).	27.3	2.57*	1.05	17	2.31	1.01	10.3
I would focus on curriculum coverage rather than student mastery (7).	20.7	2.54*	0.974	11.2	2.03	0.971	9.5
I would assess students on their ability to recall facts (25).	44.9	3.01*	1.08	36	2.78	1.08	8.9
I would use instruction that limits curriculum integration (9).	14	2.23*	0.935	6.7	1.9	0.867	7.3
I would use ability grouping within the classroom (18).	44.9	3.04*	0.988	51.7	3.27	0.902	6.8
My assessment would be intended to grade and rank students (23).	23	2.56*	1	18	2.28	1.11	5

Table 4.8 (continued)

Statements	% A	M	SD	% A	M	SD	% diff
I would limit student interactions to maximize skill acquisition (15).	9.1	1.98*	0.934	5.6	1.79	0.872	3.5
I would assign individual seatwork after instruction (20).	55.1	3.33*	0.863	52.3	3.22	0.964	2.8
I would rely on one method of instruction (14).	2.3	1.56*	0.71	4.5	1.55	0.769	2.2
I would focus on skill acquisition rather than skill application (6).	23.5	2.68*	0.929	21.6	2.55	1	1.9
My lesson planning would focus on the breadth of the curriculum rather than the depth of the curriculum (8).	20.7	2.7	0.864	19.3	2.34	1.03	1.4
I would maintain a teacher-centered classroom (16).	15.9	2.40*	0.988	16.9	2.15	1.08	1
My instruction would be rigid and sequential not flexible (12).	7.9	2.00*	0.866	7.9	1.73	0.889	0

A = Agree + Strongly Agree, % = valid percent, n = 89
* denotes significant difference at $p < .05$

Actual and Ideal Constructivist Teaching Practices

In response to research question three that asked if there was a difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and

constructivist teaching practices, all of the statements that were identified with the constructivist domain were examined under each frame of reference. For analysis purposes, the data were transformed to ensure that the responses that signified "Agree" and Strongly Agree" on each of these items were combined and recoded to signify "Agree", and recorded on each of the individual items contained in the survey. If the difference between the teachers' actual practice and their ideal practice was positive, this indicated that the practice was more likely to be performed as a result of the requirements of the MCT, rather than their own teaching preference practice. If the difference between the teachers' actual practice and their ideal practice was negative, this indicated that the practice was less likely to be performed as a result of the requirements of the MCT, and was more likely to represent the implementation of their own teaching preference practice. If there was no difference between the percent of teachers agreeing with the statement that addressed their actual practice and their ideal practice, this indicated that the actual practice was in alignment with their own teaching preference practice.

The results in Table 4.9 present the teachers' responses in order of magnitude, from the greatest degree of difference between the actual practice and the ideal practice to the lowest degree of difference. They were all significantly different ($p < .05$), as shown in the Table 4.9. In addition, the responses are also identified by the question number from the questionnaire. It would appear from the results that there was a great deal of difference between the teachers' actual practices and their ideal practices if they did not have the pressure of the MCT. The greatest differences between the teachers' actual practices and their ideal practices are seen in the following situations: teachers'

willingness to allow students to choose their learning activities to support the instructional objectives (39.7%); allowing students to develop assessment rubrics (32.3%); allowing students to actively experiment with new skills (24.7%); routinely developing problem-solving activities for students (19.4%); engaging students in hands-on learning activities; and adapting instruction to student-initiated questions (13.5%). The lowest amount of difference was detected in the following; their value of open-ended discussions on the curriculum (4.5%); their use of cooperative learning activities (10.1%); making connections for students across the curriculum (10.4%); and diversifying to maximize student achievement (11.1%). The teachers' responses to all the statements regarding their actual constructivist practices are located in Appendix G. The teachers' responses to all the statements regarding their ideal constructivist practices are located in Appendix I.

Table 4.9 Actual and Ideal Constructivist Teaching Practices

	Actual Practice			**Ideal Practice**			
Statements	**% A**	**M**	**SD**	**% A**	**M**	**SD**	**% diff**
I would allow students to choose learning activities to support instructional objectives (10).	38	2.97*	0.95	78	3.7	0.63	39.7
I would allow students to develop assessment rubrics (19).	26	2.61*	1.04	58	3.4	0.85	32.3
I would allow students to actively experiment with new skills (30).	63	3.51*	0.73	88	3.9	0.38	24.7
I would routinely develop problem-solving activities for students (26).	71	3.64*	0.61	90	3.9	0.35	19.4

Table 4.9 (continued)

Statements	% A	M	SD	% A	M	SD	% diff
I would engage students in hands-on learning activities (13).	74	3.57*	0.81	88	3.8	0.69	16.6
I would adapt instruction to student-initiated questions (28).	73	3.65*	0.64	87	3.8	0.48	13.5
I would use diversity to maximize student achievement (17).	72	3.62*	0.68	83	3.8	0.56	11.1
I would evaluate student work products subjectively (29).	47	3.28*	0.8	60	3.5	0.71	13.1
I would make connections for students across the curriculum (2).	78	3.72*	0.58	89	3.9	0.37	10.4
I would use cooperative learning Activities (5).	84	3.78*	0.56	94	3.9	0.3	10.1
I would value open-ended discussions on the curriculum (27).	85	3.84*	0.4	90	3.8	0.54	4.5

A = Agree + Strongly Agree, % = valid percent, n = 89
* significantly different at $p < .05$

Teacher Perceptions of the MCT

Research question four asked "How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?" This question was answered by examining the responses of the teachers on the survey that requested their perceptions of regarding the Mississippi Curriculum Test. (MCT) that is shown in Appendix J. The teachers' overall perception of the MCT is important as one examines the differences between the actual practices used and their ideal practices for educating their students. This Teacher Perception Survey solicited responses from the teachers on 18 items that

were developed using the Likert scale. Teachers were asked to respond by selecting the following choices: 1 = “Strongly Disagree”, 2 = “Disagree”, 3 = “Neutral”, 4 = “Agree” and 5 = “Strongly Agree”. The choices with the higher numbers “4” and “5” indicated agreement with the statements and a greater likelihood of representation of their true perceptions. The focus of this study was on understanding teachers’ preferences and their actual practices, it was necessary to define one score that represented their preferences and their practices. This necessitated a conversion of the scores from the instrument. For purposes of this analysis, the choices representing “Agree” and Strongly Agree” were grouped under one category called “Agree”.

The teachers’ responses presented in Table 4.10 serve to answer research question four. The responses on the table arranged in order of magnitude, ranging from the highest response rate (percentage) to the lowest. Table 4.10 presents the teachers responses to each of the items based on the percentage of teachers who rated the respective items. The responses are ranked from highest to lowest based on the number of teachers who tend to agree with the statement. They are also identified by the question number as they appear on the questionnaire.

As seen in the table, most of the teachers (92.1%) agree that as the MCT approaches, there is a stronger focus on the use of instructional time for test preparation. An almost equally large number of them (87.6%) indicate that they feel intense pressure to continue to raise student MCT scores. More than 70% of the teachers agreed that they spent a considerable amount of time on practice test questions and test taking techniques, and that the MCT did not adequately measure the depth of the curriculum. About two-

thirds of the teachers felt that the students' results on the MCT influenced their teaching practices and that their practices were compatible with the MCT test. Over half of the teachers felt that the use of the MCT forced them to use practices that conflicted with their own ideal instructional style. A small number of teachers supported statements about the MCT; the MCT 's ability to accurately assess student mastery of the Mississippi framework and benchmarks (20.5%); its support of student-centered instruction (15.7%); using the MCT scores as a reflection of the quality of the teachers' instruction (9.0%); and its ability to assess the learning of all students (8.0%). The teachers' responses to all the statements regarding their perceptions of the MCT are located in Appendix J.

Table 4.10 Teacher Perceptions of the MCT

Statements	N	%A	Mean	SD
4. As the MCT approaches there is a significant focus of instructional time on test preparation.	89	92.1	4.506	0.7995
16. I feel intense pressure to continue to raise student MCT scores.	89	87.6	4.472	0.9057
1. Teachers use a significant amount of instructional time on practice test questions and test taking techniques.	89	73	3.944	0.8965
7. The MCT cannot measure the depth of the curriculum.	87	70.1	3.874	0.9741
12. My daily instructional practices are compatible with the MCT test.	89	67.4	3.685	0.8994
18. My students MCT test results greatly influence my instructional methods.	89	65.2	3.652	1.0236
11. I believe students will do well on the MCT test if I teach to the state curriculum standards.	88	55.7	3.477	1.0054

Table 4.10 (continued)

Statements	% A	M	SD	% A
15. I believe that the MCT tests lead me to teach in ways that contradict my own ideas best instructional practice.	89	52.8	3.483	1.1785
13. My teacher made tests are in the same format as the MCT test. (Single answer/Multiple Choice)	88	46.6	3.125	1.1725
10. The student home environment determines their success on the MCT.	89	44.9	3.27	1.0086
17. I believe that I am able to help students improve their MCT test scores without really improving student learning.	89	44.9	3.236	1.2882
5. MCT assessment is aligned with teacher assessment.	88	36.4	2.977	0.1344
6. The MCT assesses discreet pieces of information.	88	30.7	3.182	0.9413
9. Student gains on the MCT are random and not supported by classroom instruction.	89	29.2	2.865	1.0246
2. The MCT assesses student mastery of the Mississippi Framework and measures the benchmarks effectively.	88	20.5	2.648	0.9228
8. The MCT supports student centered instruction	89	15.7	2.303	1.0269
14. I believe MCT test scores reflect the quality of the teachers' instruction.	89	9	2.135	0.9557
3. The MCT assesses the learning of all students.	88	8	2.034	0.9402

*A = Agree + Strongly Agree, % = valid percent, n = 89

Summary

In this chapter, the data analysis was presented in the tables to give a description of the teachers' responses on the questions from the surveys (see Appendix A.1, A.2., A.3). The teachers' responses on the questionnaire provided their ideal and actual teaching practices in preparing their students for their Mississippi Curriculum Test as well as their use of instructional practice: behaviorist or constructivist. Teachers perception about the Mississippi Curriculum Test were also presented.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of the study, the conclusions drawn, and offers recommendations for school personnel, as well as recommendations for further study. This study examined the teachers' teaching practices as for raising student achievement on Mississippi grade level curriculum test. The study further compared the teachers' ideal preferences of teaching practices for raising student achievement with the actual practices that they used to prepare their students to take the Mississippi Curriculum Test (MCT). The teachers also provided information about their overall teaching orientation (constructivist or behaviorist). In addition, they were asked to give their perceptions of the MCT. The overall goal was to determine if there was a difference between teachers' ideal and actual teaching practices for raising student achievement using the state-mandated curriculum on the Mississippi Curriculum Test. The study also sought to determine if the teaching practices aligned with constructivist or behaviorist teaching practices.

In order to fully explore the problem of this study, four research questions were developed and used to examine the responses from the teachers concerning their teaching practices. The following research questions were used in this study:

1. How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
2. How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ?
3. Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?
4. How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?

The teachers' responses were recorded from three questionnaires that were administered. A Repeated Measures ANOVA was computed to examine differences between the teachers' use of behaviorist and constructivist practices in their ideal and actual instructional methods. Significant differences among the teachers in the individual groups were also examined through pair-wise comparisons.

Summary

Research question one asked "How do the ideal and actual teaching practices of teachers whose students take the Mississippi Curriculum Test differ?" The mean ideal practice score and actual practice score of the teachers were very similar indicating that the teachers' ideal and actual teaching practices occurred with almost the same frequency. The teachers' ideal and actual teaching practices occurred with almost the same frequency and did not differ significantly ($p < .05$).

Research question two asked "How do the constructivist and behaviorist teaching practices of teachers whose students take the Mississippi Curriculum Test differ?" More teachers preferred the constructivist practices to the behaviorist practices for raising scores on the MCT. According to the teachers, constructivist practices are more likely to be implemented, while behaviorist practices are less favored. The teachers' ideal and actual teaching practices differed significantly ($p < .001$).

Research question three asked "Is there a significant difference in the actual and ideal teaching practices of the teachers in relation to their behaviorist and constructivist teaching practices?" The repeated measures ANOVA revealed that there were significant differences in leadership performance between the four sets of measurement, F (3, 88) = 199.774, $p < .001$. Tukey comparisons revealed that all four means were significantly different from each other. Teachers' actual behaviorist practices ($M = 2.7460$) was significantly lower than that of teachers' actual constructionist practices ($M = 3.7316$), significantly higher than teachers' ideal behaviorist practices ($M = 2.3584$), and significantly lower than teachers' ideal constructionist practices ($M = 4.2092$).

The analysis revealed that there were significant differences when comparing the four types of practices used this study, the teachers' actual, ideal, behaviorist, and constructivist practices. More importantly, the teachers' actual behaviorist practices differed significantly from the teachers' ideal behaviorist practices, and the teachers' actual constructivist practices differed significantly from their ideal constructivist practices. Teachers generally do not fully embrace the practices they are required to use

for preparing their students to take the MCT. They appear to have more confidence in their ideal practices for educating their students.

Research question four asked "How do the teachers feel about the Mississippi Curriculum Test that the students are required to take?" The teachers provided their views about the school's atmosphere surrounding the administration of the MCT. Most of the teachers (92.1%) agree that as the MCT approaches, there is a usually stronger focus on the use of instructional time for test preparation. An almost equally large number of them (87.6%) indicate that they feel intense pressure to continue to raise student MCT scores. More than 70 percent of the teachers agreed that they spent a considerable amount of time on practice test questions and test taking techniques, and that the MCT did not adequately measure the depth of the curriculum. About two-thirds of the teachers felt that the students' results on the MCT influenced their teaching practices, and that their personal preferences of practices for educating the students were compatible with the MCT test. Over half of the teachers felt that the use of the MCT forced them to use practices that conflicted with their own ideal instructional style. Only about 20.5% of the teachers agreed that the MCT could accurately assess student mastery of the Mississippi framework and benchmarks. Only about 15.7% of them expressed their approval for the MCT to be used as adequate support of student-centered instruction. Approximately 9.0% of the teachers supported the use of the MCT scores as a reflection of the quality of the teachers' instruction. About 8.0% of them believed that the MCT had the ability to assess the learning of all students.

Conclusion

A repeated measures one-way ANOVA revealed that there were significant differences in leadership performance between the four sets of measurement, F (3, 88) = 199.774, $p < .001$, and this was a medium to high effect size (eta-squared = .763). Tukey comparisons revealed that all four means were significantly different from each other. Teachers' actual behaviorist practices (*M = 2.7460*) was significantly lower than that of teachers' actual constructionist practices (*M = 3.7316*), significantly higher than teachers' ideal behaviorist practices (*M = 2.3584*), and significantly lower than teachers' ideal constructionist practices (*M = 4.2092*).

The repeated measures one-way ANOVA procedure performed yielded interesting results that senior education administrators should examine very closely when making decisions about educational policy and practices for successfully educating children. In particular, there is evidence that the recommended (actual) teaching practices used by the teachers are not fully endorsed by the teachers or administrators. In fact, the teachers believe that they have a better handle on the type of practices that would work best in educating their children. This indicates that there is need for better collaboration between teachers and administrators in designing educational practices and creating district-wide and statewide policy that might affect the future academic opportunities for large numbers of children. It appears to this researcher that the state of Mississippi has a powerful influence on what is taught inside the classroom. It does not appear to have as much say in the methods of instruction used from teacher to teacher. School districts have wrestled for decades with the issue of defining the most appropriate practice or

instrument for assessing student performance. Table 4.5 clearly validates this confusion concerning appropriate teaching practices. Teachers implement behaviorist practices more often than they ideally want to and implement less constructivist practices which they want to more often. The only thing that most educators would probably agree on is that schools cannot determine whether school children are reaching established standards, unless the students' performances are measured. President Bush's plan for the NCLB mandate requires annual tests for all children in grades three through eight in the core subjects of reading and mathematics. It is believed that these assessments have the potential to allow parents and state officials to hold schools accountable for ensuring that every child is adequately educated (Paige, 2001).

The teachers are under the pressures of the provisions from the NCLB law to respond to the timetable in the law that prescribes annual targets for proficiency (adequate yearly progress "AYP") so that all students can achieve proficiency by 2014, with sanctions in place for failure (Robelen, 2002). For this reason, the state mandated assessments have inserted high-stakes accountability systems that some believe will unduly discriminate against poor and minority students. Many teachers in this study believe, as do other researchers and educators, that the high-stakes testing and accountability systems narrow curricula and limit teacher flexibility and creativity (McNeil, 2000).

From the responses of the teachers on the perception survey, it is evident that many of the teachers in this study believe that the key to helping all children master the complexities of reading, writing, mathematics, and other school subjects is to teach (and

test) each component skill in proper sequence. Their responses indicate that they believe that skills learned in isolation could later be assembled and applied to accomplish meaningful tasks, in accordance with the ideas of Haertel (1999). Many of them advocate the promotion of student recall of isolated facts through fill in the blank questions, and worksheets as acceptable instructional alternatives. This is as an important facet of the behaviorist philosophy.

There are many educators in Mississippi, however, who support a curriculum emphasizing higher-order thinking (Haertel, 1999). The research evidence shows that most teachers believe that achievement test scores are predicted much more by life-long factors such as parental education, socio-economic status, as well as students' early academic abilities, prior achievement scores, and language and cognitive measures (Cross & Paris, 1987).

The state of Mississippi began to rely on tests of basic skills with the belief that all students would learn at least the minimum needed to be productive citizens. The teachers who disagree with this system of testing in this study are consistent with other educators in their contention that this type of test has the tendency to increase student grade retention and failure rates, result in higher dropout rates, are unfair to minorities, and lead to inappropriate labeling that can stigmatize students (Balanced View, 2003). Many other teachers support previous reports that test results can provide useful information about student progress toward meeting curricular standards (Abrams & Madaus, 2003).

Recommendations

From the responses of the teachers in this study, there is not a great deal of support for the implementation of the Mississippi Curriculum Test among teachers. One of the drawbacks of the Mississippi Curriculum Test program is that some content areas that are not covered on the Mississippi Curriculum Test may not be covered during the school year until after the Mississippi Curriculum Test is administered. School districts have to ensure that there is sufficient balance in the curriculum to ensure that their students are exposed to a broad cross section of information and that their school experience is not designed primarily to satisfy the mandates of governmental laws. In such a system where children are not exposed to material that is not on the test, some subject areas that are vital to the successful development of young professionals will not be taught in the schools. In this respect, high-stakes tests can result in harmful direct effects for some individuals and harmful side effects for others (Jones, 2001). Consideration should be given to adjusting the present testing practices used in the State of Mississippi. Further study is recommended to examine the perceptions of teachers concerning the implementation of the MCT in other regions of the State of Mississippi of the NCLB on parents' satisfaction with their children's education and the retention of teachers in the schools. In addition, Future study could be implemented to examine the different teaching practices to determine which program will result in significantly increasing student academic performance.

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APPENDIX A.1

SURVEY OF INSTRUCTIONAL PRACTICES REQUIRED OF THE MCT TEST

Survey Instructions:

Following are two groupings of statements or practices pertaining to instructional methods. Preceding each group is a **frame of reference.** Please read the **frame of reference** and with that as a basis respond the statements by circling the appropriate number using the following scale:

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly Agree

Frame of Reference:

In the current environment of high stakes testing and public school accountability, I use the following instructional methods to raise student achievement on the MCT test:

1. I use direct instruction.	1	2	3	4	5
2. I make connections for students across the curriculum.	1	2	3	4	5
3. I limit the integration of curriculum from other subjects.	1	2	3	4	5
4. I focus instruction on content and skill acquisition.	1	2	3	4	5
5. I use cooperative learning activities.	1	2	3	4	5
6. I focus on skill acquisition rather that skill application.	1	2	3	4	5
7. I focus on curriculum coverage rather than student mastery.	1	2	3	4	5
8. My lesson planning focus on the breadth of the curriculum rather than the depth of the curriculum.	1	2	3	4	5
9. I use instruction that limits curriculum integration.	1	2	3	4	5
10. I allow students to choose learning activities to support instructional objectives.	1	2	3	4	5
11. My instruction is content-centered versus student-centered.	1	2	3	4	5
12. My instruction is rigid and sequential not flexible.	1	2	3	4	5
13. I engage students in hands-on learning activities.	1	2	3	4	5
14. I rely on one method of instruction.	1	2	3	4	5
15. I limit student interactions to maximize skill acquisition.	1	2	3	4	5
16. I maintain a teacher-centered classroom.	1	2	3	4	5
17. I use diversity to maximize student achievement.	1	2	3	4	5
18. I use ability grouping within the classroom.	1	2	3	4	5
19. I allow students to develop assessment rubrics.	1	2	3	4	5
20. I assign individual seatwork after instruction.	1	2	3	4	5
21. My assigned seatwork is drill and practice of skills.	1	2	3	4	5
22. I have the sole responsibility for student learning assessment.	1	2	3	4	5
23. My assessment is intended to grade and rank	1	2	3	4	5

students.					
24. I assess students learning with standardized tests.	1	2	3	4	5
25. I assess students on their ability to recall facts.	1	2	3	4	5
26. I routinely develop problem-solving activities.	1	2	3	4	5
27. I value open-ended discussions on the curriculum.	1	2	3	4	5
28. I adapt instruction to student- initiated questions.	1	2	3	4	5
29. I evaluate student work products subjectively.	1	2	3	4	5
30. I allow students to actively experiment with new skills.	1	2	3	4	5

APPENDIX A.2

SURVEY OF INSTRUCTIONAL PRACTICES NOT REQUIRED OF THE MCT TEST

Frame of Reference:

If there were *no MCT* tests, I would use the following instructional methods or practices to raise student achievement:

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly Agree

1. I would use direct instruction.	1	2	3	4	5
2. I would make connections for students across the curriculum.	1	2	3	4	5
3. I would limit the integration of curriculum from other subjects.	1	2	3	4	5
4. I would focus instruction on content and skill acquisition.	1	2	3	4	5
5. I would use cooperative learning activities.	1	2	3	4	5
6. I would focus on skill acquisition rather that skill application.	1	2	3	4	5
7. I would focus on curriculum coverage rather than student mastery.	1	2	3	4	5
8. My lesson planning would focus on the breadth of the curriculum rather than the depth of the curriculum.	1	2	3	4	5
9. I would use instruction that limits curriculum integration.	1	2	3	4	5
10. I would allow students to choose learning activities to support instructional objectives.	1	2	3	4	5
11. My instruction would be content-centered versus student-centered.	1	2	3	4	5
12. My instruction would be rigid and sequential not flexible.	1	2	3	4	5
13. I would engage students in hands-on learning activities.	1	2	3	4	5
14. I would rely on one method of instruction.	1	2	3	4	5
15. I would limit student interactions to maximize skill acquisition.	1	2	3	4	5
16. I would maintain a teacher-centered classroom.	1	2	3	4	5
17. I would use diversity to maximize student achievement.	1	2	3	4	5
18. I would use ability grouping within the classroom.	1	2	3	4	5
19. I would allow students to develop assessment rubrics.	1	2	3	4	5
20.I would assign individual seatwork after instruction.	1	2	3	4	5
21. My assigned seatwork would be drill and practice of skills.	1	2	3	4	5

22. I would have the sole responsibility for student learning assessment.	1	2	3	4	5
23. My assessment would be intended to grade and rank students.	1	2	3	4	5
24. I would assess students learning with standardized tests.	1	2	3	4	5
25. I would assess students on their ability to recall facts.	1	2	3	4	5
26. I would routinely develop problem-solving activities for students.	1	2	3	4	5
27. I would value open-ended discussions on the curriculum.	1	2	3	4	5
28. I would adapt instruction to student- initiated questions.	1	2	3	4	5
29. I would evaluate student work products subjectively.	1	2	3	4	5
30. I would allow students to actively experiment with new skills.	1	2	3	4	5

APPENDIX A.3

SURVEY OF TEACHERS PERCEPTIONS OF THE MCT

Frame of Reference:
Based on your experience with the MCT, respond to the following statements using the outlined responses:

1 = Strongly Disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly Agree

1. Teachers use a significant amount of instructional time on practice test questions and test taking techniques.	1	2	3	4	5
2. The MCT assesses student mastery of the Mississippi Framework and measures the benchmarks effectively.	1	2	3	4	5
3. The MCT assesses the learning of all students.	1	2	3	4	5
4. As the MCT approaches there is a significant focus of instructional time on test preparation.	1	2	3	4	5
5. MCT assessment is aligned with teacher assessment.	1	2	3	4	5
6. The MCT assesses discreet pieces of information.	1	2	3	4	5
7. The MCT cannot measure the depth of the curriculum.	1	2	3	4	5
8. The MCT supports student centered instruction.	1	2	3	4	5
9. Student gains on the MCT are random and not supported by classroom instruction.	1	2	3	4	5
10. The student home environment determines their success on the MCT.	1	2	3	4	5
11. I believe students will do well on the MCT test if I teach to the state curriculum standards.	1	2	3	4	5
12. My daily instructional practices are compatible with the MCT test.	1	2	3	4	5
13. My teacher made tests are in the same format as the MCT test. (Single answer/Multiple Choice)	1	2	3	4	5
14. I believe MCT test scores reflect the quality of the teachers instruction.	1	2	3	4	5
15. I believe that the MCT tests lead me to teach in ways that contradict my own ideas best instructional practice.	1	2	3	4	5
16. I feel intense pressure to continue to raise student MCT scores.	1	2	3	4	5
17. I believe that I am able to help students improve their MCT test scores without really improving student learning.	1	2	3	4	5
18. My students MCT test results greatly influence my instructional methods.	1	2	3	4	5

APPENDIX B

IRB APPROVAL

Mississippi State University

August 30, 2006

John Buchanan
707 Pine Valley
Pearl, MS 39208

RE: IRB Study #06-149: The Impact of High-Stakes Mandated Mississippi Curriculum Test on Teachers Instructional Practices

Dear Mr. Buchanan:

The above referenced project was reviewed and approved via administrative review on 8/30/2006 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please refer to your IRB number (#06-149) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or 325-5220.

Sincerely,

R. Dwight Hare
Chairman

cc: James Davis

Office of Regulatory Compliance
P. O. Box 6225 • 88 Morgan Street • Mail stop 9563 • Mississippi State, MS 39762 • (662) 325-3994 • FAX (662) 325-8776

APPENDIX C

PERMISSION LETTER FROM SUPERINTENDENT

Rankin County School District

Unleashing the Possibilities

Dr. Lynn Weathersby

Superintendent of Education

POST OFFICE BOX 1389
BRANDON, MS 39043
601-825-5590
FAX 601-825-3618
www.rcsd.ms

Brandon
Rouse Elementary (K-2)
Brandon Elementary (3-5)
Brandon Middle (6-8)
Brandon High (9-12)
Alternative (K-12)

Florence
Florence Elementary (K-3)
Florence Middle (4-8)
Florence High (9-12)

McLaurin
McLaurin Elementary (K-6)
McLaurin High (7-12)

Northwest Rankin
Flowood Elementary (K-5)
Northshore Elementary (K-5)
NWR Elementary (K-5)
Oakdale Elementary (K-5)
NWR Middle (6-8)
NWR High (9-12)

Pelahatchie
Pelahatchie Elementary (K-6)
Pelahatchie High (7-12)

Pisgah
Pisgah Elementary (K-6)
Pisgah High (7-12)

Puckett
Puckett (K-12)

Richland
Richland Elementary (K-3)
Richland Middle (4-8)
Richland High (9-12)

August 28, 2006

Mr. John Buchanan
Winona Public Schools
218 Fairground Street
Winona, Mississippi 38967

Dear Mr. Buchanan:

Please accept this letter as permission to contact our sixth through eighth grade schools. I understand that this survey will be used in partial fulfillment of a Doctor of Education Degree in Educational Leadership at Mississippi State University.

I will contact our principals and let them know that you will be in touch with them in the near future. I also understand that the participation is voluntary and that any surveys you obtain will be held in confidence.

I congratulate you on your endeavors. If we can be of further assistance, please let us know.

Sincerely,

Lynn Weathersby

Lynn Weathersby, Ph.D.
Superintendent

lwg

APPENDIX D

INFORMED CONSENT

The Impact of High-Stakes State Mandated Mississippi Curriculum Test on Teacher Instructional Practices

Dear Prospective Participant:

As you are well aware, the Mississippi Curriculum Test (MCT) is becoming more of a high-stakes test throughout the state of Mississippi. Accountability is increasing for students, teachers, and districts as reflected by student scores on this test.

There is very little research on the impact of teaching practices and student achievement on the MCT. As a result of this, I am conducting research to examine teachers' use of the Mississippi Benchmark objectives for raising student achievement on Mississippi grade level curriculum test in comparison to their preferences of teaching strategies for raising student achievement. The overall purpose of this research study is to investigate the instructional reactions of you, the classroom teacher to this accountability driven environment. The goal is to determine if there is a difference between teacher's ideal and actual teaching practices for raising student achievement using the state-mandated curriculum on the Mississippi Curriculum Test. The research will also determine if the teaching practices align with constructivist or behaviorist teaching practices.

Your part in this research involves answering three short surveys and providing generic demographic information that will take approximately fifteen minutes. Your identity will remain anonymous. None of the information you provide will identify you in any way. Participation is voluntary, you may choose at anytime to stop answering the survey questions and you may choose to skip any that you do not wish to answer.

I would like to thank you for considering participating in this research, and if you agree to participate, I thank you for the time you have given in completing the survey.

If you desire answers to pertinent questions about this research, please contact the researcher, John Buchanan 218 Fairgrounds St Winona MS 662-283-3731 (phone) 662-283-1003 (fax). If you have questions in regards to your rights, or in the event of a research-related injury please contact: Mississippi State University Office of Regulatory Compliance at 662-325-5220 (phone) or irb@research.msstate.edu .

APPENDIX E

DEMOGRAPHIC INFORMATION

1. How many years have you been teaching? _____
2. How many years have you been teaching in Mississippi? _____
3. How many years have you been teaching in Rankin County? _____
4. What grade level do you teach? _____
5. If you teach a specific subject, please specify. _____
6. Did you attend an accredited college or university teacher certification program? _____
7. Did you enter teaching through an alternate route certification program? _____
8. Are you currently teaching with a provisional or one-year license? _____

APPENDIX F

ACTUAL BEHAVIORIST TEACHER PRACTICES

Statement	SD	D	N	A	SA
1. I would use direct instruction.	4.8	4.8	10.7	26.2	53.6
2. I would limit the integration of curriculum from other subjects.	16.9	37.1	29.2	19.9	0.0
3. I would focus instruction on content and skill acquisition.	0.0	2.3	10.3	58.6	28.7
4. I would focus on skill acquisition rather that skill application.	8.2	38.8	29.4	21.2	2.4
5. I would focus on curriculum coverage rather than student mastery.	13.8	39.1	26.4	17.2	3.4
6. My lesson planning would focus on the breadth of the curriculum rather than the depth of the curriculum.	5.7	39.1	34.5	16.1	4.6
7. I would use instruction that limits curriculum integration.	24.4	41.9	19.8	11.6	2.3
8. My instruction would be content-centered versus student-centered.	6.7	36.0	29.2	24.7	3.4
9. My instruction would be rigid and sequential not flexible.	29.2	49.4	13.5	5.6	2.2
10. I would rely on one method of instruction.	54.0	37.9	5.7	2.3	0.0
11. I would limit student interactions to maximize skill acquisition.	35.2	40.9	14.8	6.8	2.3
12. I would maintain a teacher-centered classroom.	20.5	35.2	28.4	12.5	3.4
13. I would use ability grouping within the classroom.	5.6	29.2	20.2	36.0	9.0

14. I would assign individual seatwork after instruction.	3.4	15.7	25.8	48.3	6.7
15. My assigned seatwork would be drill and practice of skills.	11.4	17.0	26.1	44.3	1.1
16. I would have the sole responsibility for student learning assessment.	15.9	38.6	18.2	21.6	5.7
17. My assessment would be intended to grade and rank students.	14.9	36.8	25.3	21.8	1.1
18. I would assess students learning with standardized tests.	8.0	33.3	14.9	39.1	4.6
19. I would assess students on their ability to recall facts.	13.5	16.9	24.7	38.2	6.7

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

APPENDIX G

ACTUAL CONSTRUCTIVIST TEACHER PRACTICES

	Statement	SD	D	N	A	SA
1.	I would make connections for students across the curriculum.	1.1	3.4	17.2	43.7	34.5
2.	I would use cooperative learning activities.	1.1	3.4	11.4	45.5	38.6
3.	I would allow students to choose learning activities to support instructional objectives.	5.7	29.5	27.3	29.5	8.0
4.	I would engage students in hands-on learning activities.	3.4	10.1	12.4	43.8	30.3
5.	I would use diversity to maximize student achievement.	1.1	7.9	19.1	48.3	23.6
6.	I would allow students to develop assessment rubrics.	15.9	33.0	25.0	23.9	2.3
7.	I would routinely develop problem-solving activities for students.	0.0	6.7	22.7	55.7	14.8
8.	I would value open-ended discussions on the curriculum.	0.0	1.1	13.5	56.2	29.2
9.	I would adapt instruction to student-initiated questions.	1.1	5.6	20.2	58.4	14.6
10.	I would evaluate student work products subjectively.	2.3	14.9	35.6	42.5	4.6
11.	I would allow students to actively experiment with new skills.	2.2	6.7	28.1	48.3	14.6

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

APPENDIX H

IDEAL BEHAVIORIST TEACHER PRACTICES

Statement	SD	D	N	A	SA
1. I would use direct instruction.	11.6	10.5	17.4	27.9	32.6
2. I would limit the integration of curriculum from other subjects	29.2	44.9	20.2	5.6	0.0
3. I would focus instruction on content and skill acquisition	3.4	11.2	21.3	42.7	21.3
4. I would focus on skill acquisition rather that skill application	15.9	35.2	27.3	12.5	9.1
5. I would focus on curriculum coverage rather than student mastery	33.7	40.4	14.6	9.0	2.2
6. My lesson planning would focus on the breadth of the curriculum rather than the depth of the curriculum	21.6	42.0	17.0	14.8	4.5
7. I would use instruction that limits curriculum integration	36.0	44.9	12.4	5.6	1.1
8. My instruction would be content-centered versus student-centered	19.3	43.2	27.3	9.1	1.1
9. My instruction would be rigid and sequential not flexible	48.3	38.2	5.6	6.7	1.1
10. I would rely on one method of instruction.	57.3	34.8	3.4	4.5	0.0
11. I would limit student interactions to maximize skill acquisition	44.9	37.1	12.4	5.6	0.0
12. I would maintain a teacher-centered classroom	34.8	32.6	15.7	11.2	5.6
13. I would use ability grouping within the Classroom	5.6	13.5	29.2	34.8	16.9
14. I would assign individual seatwork after	6.8	17.0	23.9	47.7	4.5

Instruction					
15. My assigned seatwork would be drill and practice of skills	16.9	25.8	22.5	30.3	4.5
16. I would have the sole responsibility for student learning assessment	22.7	40.9	19.3	13.6	3.4
17. My assessment would be intended to grade and rank students	33.7	22.5	25.8	18.0	0.0
18. I would assess students learning with standardized tests	20.2	39.3	20.2	20.2	0.0
19. I would assess students on their ability to recall facts	13.5	31.5	19.1	32.6	3.4

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

APPENDIX I

IDEAL CONSTRUCTIVIST TEACHER PRACTICES

	Statement	SD	D	N	A	SA
1.	I would make connections for students across the curriculum	0.0	1.1	10.2	40.9	47.7
2.	I would use cooperative learning activities	0.0	1.2	4.7	38.4	55.8
3.	I would allow students to choose learning activities to support instructional objectives.	1.1	5.6	15.7	41.6	36.0
4.	I would engage students in hands-on learning activities	3.4	4.5	4.5	39.3	48.3
5.	I would use diversity to maximize student achievement	1.1	3.4	12.5	43.2	39.8
6.	I would allow students to develop assessment rubrics	5.6	6.7	29.2	40.2	18.0
7.	I would routinely develop problem-solving activities for students	0.0	1.1	9.0	50.6	39.3
8.	I would value open-ended discussions on the curriculum	2.3	1.1	6.8	47.7	42.0
9.	I would adapt instruction to student-initiated questions	1.1	1.1	11.2	50.6	36.0
10.	I would evaluate student work products Subjectively	2.3	5.7	31.8	37.5	22.7
11.	I would allow students to actively experiment with new skills	0.0	1.1	11.2	47.2	40.4

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

APPENDIX J

TEACHER PERCEPTIONS OF THE MCT

Statement	SD	D	N	A	SA
1.Teachers use a significant amount of instructional time on practice test questions and test taking techniques	0.0	19.1	43.8	0.0	29.2
.2. The MCT assesses student mastery of the Mississippi Framework and measures the benchmarks effectively	8.0	40.9	30.7	19.3	1.1
3. The MCT assesses the learning of all students	34.1	36.4	21.6	8.0	0.0
4. As the MCT approaches there is a significant focus of instructional time on test preparation.	2.2	0.0	5.6	29.2	62.9
5. The MCT assessment is aligned with teacher assessment	8.0	31.8	23.9	27.3	9.1
6. The MCT assesses discreet pieces of information.	5.7	10.2	53.4	21.6	9.1
7. The MCT cannot measure the depth of the curriculum.	1.1	9.2	19.5	41.4	28.7
8. The MCT supports student centered instruction.	23.6	39.3	21.3	14.6	1.1
9. Student gains on the MCT are random and not supported by classroom instruction.	5.6	37.1	28.1	23.6	5.6
10. The student home environment determines their success on the MCT.	4.5	18.0	32.6	36.0	9.0
11 I believe students will do well on the MCT test if I teach to the state curriculum standards.	4.5	11.4	28.4	43.2	2.5
12. My daily instructional practices are compatible with the MCT test.	1.1	11.2	20.2	52.8	14.6
13.My teacher made tests are in the same format as the MCT test. (Single answer/Multiple Choice)	5.7	34.1	13.6	35.2	11.4

14. MCT test scores reflect the quality of teacher Instruction	28.1	40.4	22.5	7.9	1.1
15. I believe that the MCT tests lead me to teach in ways that contradict my own ideas best instructional practice.	4.5	19.1	23.6	29.2	23.6
16. I feel intense pressure to continue to raise student MCT scores.	2.2	2.2	7.9	21.3	66.3
17. I believe that I am able to help students improve their MCT test scores without really improving student learning .	9.0	24.7	21.3	23.6	21.3
18. My students MCT test results greatly influence my instructional methods.	2.2	14.6	18.0	46.1	19.1

SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree