ABSTRACT

Peggy J. Hester, IMPLEMENTING A MULTI-TIERED SYSTEM OF SUPPORT TO INCREASE STUDENT SUCCESS (Under the direction of Dr. Kermit Buckner) Department of Educational Leadership, December 2019.

West Bladen High School implemented a Multi-Tiered System of Support (MTSS) model to improve student achievement, attendance, and behavioral outcomes for students at-risk of dropping out of school. With little guidance and training, the school developed an early warning system to identify at-risk freshmen while serving retained freshmen and upperclassmen that were at risk of dropping out of school.

Students were supported through the development of intervention plans and mentor support. Freshmen were further supported through Peer Group Connections (PGC), a program that developed social-emotional learning through weekly outreaches led by upperclassmen. Grades, attendance, and behavior were tracked for each student in this study. Freshmen were surveyed to determine the impact of the PGC outreaches on their outlook towards school. Finally, the FAM-S was used to determine the school's capacity for implementation.

This study revealed that teachers need more professional development to implement research-based best practices for tiered intervention and training as mentors. However, the supports offered by the school were successful in helping students reduce or eliminate risk factors for dropping out of high school.

IMPLEMENTING A MULTI-TIERED SYSTEM OF SUPPORT TO INCREASE STUDENT SUCCESS

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DEDICATION

This work is dedicated to my family who supported me through each step of this process. My parents, husband, and children believed in me and encouraged me to persevere, and for that, I am eternally grateful.

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I would also like to thank my committee and my dissertation chair, Dr. Buckner, who provided timely guidance and feedback to ensure successful completion. Dr. Robert Taylor has been a source of encouragement and wisdom, serving as a mentor throughout this program. Each of these committee members is a role model for educators.

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CHAPTER 1: INTRODUCTION

Problem of Practice

This dissertation is presented as a dissertation in practice or problem of practice, as described by the Carnegie Project on the Education Doctorate (CPED). The problem of practice is identified by an educational or professional practitioner and results in improved understanding, experience, and outcomes (Perry, 2015). This professional doctorate solves complex problems of practice and prepares leaders to apply what they have learned to improve their organization. Questions often involve equity, ethics, and social justice. Using professional knowledge and research, this dissertation bridges the gap between theory and practice and builds upon the knowledge base of practitioners that may be applied to other scenarios and situations (Perry, 2015).

Description of the Problem

The Carnegie Corporation of New York's (1996) report, *Years of Promise*, describes the widespread nature of underachievement among American students. The report states:

Make no mistake about it; underachievement is not a crisis of certain groups; it is not limited to the poor; it is not a problem afflicting other people's children. Many middle and upper-income children are also falling behind intellectually. Indeed, by the fourth grade, the performance of most children in the United States is below what it should be for the nation and is certainly below the achievement levels of children in competing countries (The Carnegie Corporation of New York, 1996, p. 2).

Underachievement in our society has a much larger impact than simply not performing to the best of one's abilities. Failure to live up to one's potential can result in limited skills, limited

job opportunities, and inability to fully understand changes in the global market, economy, and both social and political realms of the world.

Underachievement and low achievement have been studied for years by researchers, but the trend continues. Before understanding the data that produced the label of underachievement, one must have a working definition of the term. For the purposes of this analysis, underachiever and low achiever, or low performer, will be used interchangeably. However, it is necessary to address any differences between underachievement, which may be more individualistic, and low performing, which is often used to describe specific groups. Raph, Goldberg, and Passow (1966) defined underachievement as the difference between a student's academic performance and his/her ability, as defined by some standardized assessment of ability level such as IQ. This is the definition that will be used in this paper.

Berger (2013) attributes underachievement to lowering the graduation rate. Not performing to their potential leaves students at-risk for dropping out of school or not succeeding in college or a career. It is necessary to further examine the concept of college and career readiness and its correlation to underachievement. If interventions can address underachievement, college and career readiness and graduation rates should improve.

In President Barack Obama's opening letter of the reauthorization of the Elementary and Secondary Education Act (ESEA), he charged Americans to "…ensure that every student graduates from high school well prepared for college and a career" (United States Department of Education, 2010). However, no concise definition of what it means to be "well prepared" was offered. Conley (2012) offered a consensus from across the nation: "a student is college and career ready when he or she can both enroll in and successfully complete postsecondary collegiate or vocational programs without remedial academic work or assistance". In 2015,

several governing boards guiding North Carolina's education system met and developed a definition of college and career readiness.

> In North Carolina, students are considered career and college ready when they have the knowledge and academic preparation needed to enroll and succeed, without the need for remediation, in introductory college credit-bearing courses in English language arts and mathematics within an associate or baccalaureate degree program. These same attributes and levels of achievement are needed for entry into and success in postsecondary workforce education, the military, or directly into a job that offers gainful employment and career advancement (The Hunt Institute, 2015).

The North Carolina Standard Course of Study is at the center of specific benchmarks for college and career readiness including mastery of knowledge in English and Mathematics standards as well as completion of a course of academic preparation. North Carolina also includes in its definition passing the American College Testing (ACT), the Scholastic Aptitude Test (SAT), or the North Carolina Diagnostic and Placement Test (NCDAP) or Accuplacer, a Grade Point Average (GPA) that will gain a student entrance into a post-secondary institution, passing the ACT WorkKeys assessment, and earning a high school diploma (The Hunt Institute, 2015).

Each of these factors is included in a school's report card grade. For end-of-course tests (EOCs) in English II, Math I, and Biology, students are deemed proficient with a level three or higher on a scale of one to five. Only students scoring a level four or five are considered college and career ready. Likewise, students are considered proficient on the ACT in North Carolina with a composite score of seventeen or higher, but they must pass all subtests to be considered college and career ready. North Carolina calculates both a four-year and a five-year graduation cohort rate, but only those that graduate in four years are college and career ready graduates.

Finally, ACT WorkKeys proficiency in the workforce is a score of bronze or higher, but in order to be considered a college and career ready graduate, the state of North Carolina only accepts scores of silver or higher (North Carolina Department of Public Instruction, Division of Accountability Services, 2018).

Underachieving students often have multiple factors that impact their school performance. These include social interactions among peers and family, economic disadvantages, lack of parental involvement and positive role models, boredom and disengagement from classroom activities, and high expectations to perform at a high level. These factors may not be controllable in every situation, but educational stakeholders must target the factors that are controllable. All stakeholders must come together to help students achieve their individual potential. This may require individual approaches or a broad set of strategies that will help all students. Developing partnerships that work to benefit the home, school, and individual student may be the key to successfully reversing underachievement.

Early identification of students that are at-risk for underachievement and falling behind their peers may increase students' likelihood of graduating on time. Modeled after Florida's intervention model, intervention in North Carolina's Multi-Tiered System of Support (MTSS) framework includes six critical components. These components include leadership, building capacity and infrastructure for implementation, communication and collaboration, data-based problem-solving, a three-tiered intervention model, and data evaluation. This system combines elements of Response to Intervention (RTI) and Positive Behavior Interventions and Supports (PBIS) (Retrieved from https://www.livebinders.com/play/play?id=2052295#anchor).

When implemented with fidelity, these programs allow educators to use a systematic approach to identifying and addressing academic, social/emotional, and behavioral difficulties in

students prior to failure. These students are identified as at-risk, or failing academically and having a higher probability of dropping out of school, under-performing, or underachieving. These students may also struggle with attendance and behavioral issues. Once identified, implementing a personalized program of research-based interventions and monitoring student response to these interventions should result in improved student achievement (Robins & Antrim, 2013).

In 2011, North Carolina collaborated with the Oak Foundation to begin the implementation of MTSS at the secondary level. Initially, pilot schools focused on literacy improvement, PBIS, and mathematics. Districts participating in the pilot program collaborated with the North Carolina Department of Public Instruction (NCDPI) to build a sustainable system of support for students in grades pre-kindergarten through grade thirteen. North Carolina's MTSS model is one of many initiatives designed to support the State Board of Education's goals for student success. The SBE goals include:

1. Every student in the NC Public School System graduates from high school prepared for work, further education and citizenship.
2. Every student has a personalized education.
3. Every student, every day, has excellent educators.
4. Every school district has up-to-date financial, business, and technology systems to serve its students, parents and educators.
5. Every student is healthy, safe and responsible. (Retrieved from http://www.stateboard.ncpublicschools.gov; ncpublicschools.org)

North Carolina has also developed a vision and mission for MTSS, and while these components

are clear, implementation across North Carolina and throughout the United States is inconsistent (Retrieved from http://www.stateboard.ncpublicschools.gov).

Schools across the United States have implemented RTI and PBIS at various levels, but all districts do not have a sustainable framework which is suitable for daily operation. The MTSS framework, including prereferral, is recommended but not required in all states. In 1989, Carter and Sugai found that 34 of 49 states required or recommended prereferral, but none required the process to be completed prior to referral to special education referral or classification. Buck, Polloway, Smith-Thomas, and Cook (2003) found that 72% of states used prereferral teams, but the goals, membership, and interventions used by these teams varied. More information is needed to determine how MTSS intervention is implemented across the country (Truscott, Cohen, Sams, Sanborn, & Frank, 2005).

The MTSS framework, including early warning systems, identification of at-risk students, and tiered-supports is one of the most effective problem-solving strategies for students with behavioral and academic problems (Sailor, 2014). However, implementing this framework and maintaining program fidelity can be troublesome. According to Nelson, Oliver, Herbert, and Bohaty (2015), organizational support and capacity building can be barriers to implementation. The MTSS framework requires collaboration among stakeholders, planning, and follow-through. Shared leadership, data-driven decision making, research-based strategies, problem-solving teams, universal screening, and family involvement are critical elements of the framework that must be consistent and are critical to the success of the framework.

The Carnegie Corporation of New York (1996) reported that underachievement affects both individuals and groups, not limiting itself to the poor, minorities, or students with disabilities. The report indicated that by the fourth grade, most children in the United States

perform below the levels of students in other countries. The Programme for International Student Assessment (PISA) reported in 2014 that in mathematics and science, the United States ranked below its international counterparts. In 2012, the United States ranked twenty-seventh in mathematics, seventeenth in reading, and twentieth in science; however, these rankings vary with differences in sampling and measurement. The official ranking is not as important as the fact that over the years, the performance of the United States has remained stagnant (OECD, 2014).

Other indicators of underachievement among students include ACT and SAT scores, ACT WorkKeys scores, and EOC scores. When examining data over the past decade, ACT scores remained unchanged. In 2000, the national average for ACT scores was 21.0, and it held steady at 21.0 in 2017 (U.S. Department of Education, National Center for Education Statistics, 2017). According to the North Carolina Public Schools Report Card (2018), the average ACT score declined slightly from 20.5 in 2006 to 18.5 in 2013. Proficiency scores for Bladen County's two high schools from 2013 until 2015 show both lagged behind the state by almost 20 percentage points. Over this three-year period, the district averaged 33.7% proficiency, while the state averaged 59.7% proficiency. In North Carolina, a score of 17 is proficient, and it is important to note that North Carolina now requires all eleventh grade students to take the ACT (North Carolina Public Schools Report Card, 2018).

SAT scores were also much lower at the school and district levels, falling below the state and national averages. In 2006, the average SAT score among students in the United States was 1,017 (U.S. Department of Education, National Center for Education Statistics, 2017). North Carolina's average score was close behind at 1,004 (North Carolina Public Schools Report Card, 2018). However, Bladen County Schools' score was only 876, and West Bladen High School's score was 890. In 2013, similar results were observed. The nation's average score was 1,010.

North Carolina's average score was 1,001, but the district average was 865, and students at West Bladen High School scored an average of 890 (U.S. Department of Education, National Center for Education Statistics, 2017). Unlike the ACT, the SAT is not required for students and is widely accepted at colleges and universities throughout the country.

The ACT WorkKeys assessment results are indicative of underachievement among American students. Between 2010 and 2014, 70% of students taking the WorkKeys assessment across the United States scored a silver or higher. For this assessment, students scoring silver, gold, or platinum are considered proficient in skills that employers desire for the workforce. Some employees accept the bronze level certificates as well, but for North Carolina students, only the silver or higher is considered proficient. Scores on this assessment can help employees earn higher wages, as they are considered more employable, demonstrating mastery of skills in applied mathematics, locating information, and reading for information (ACT Insights in Education & Work: Career Readiness in the United States, 2015). Across the state, North Carolina had 72.1% of its students scoring at proficiency, but in Bladen County Schools, proficiency levels ranged from 39.7% to an increase of 55.3% between 2013 and 2015 (North Carolina Public Schools Report Card, 2018).

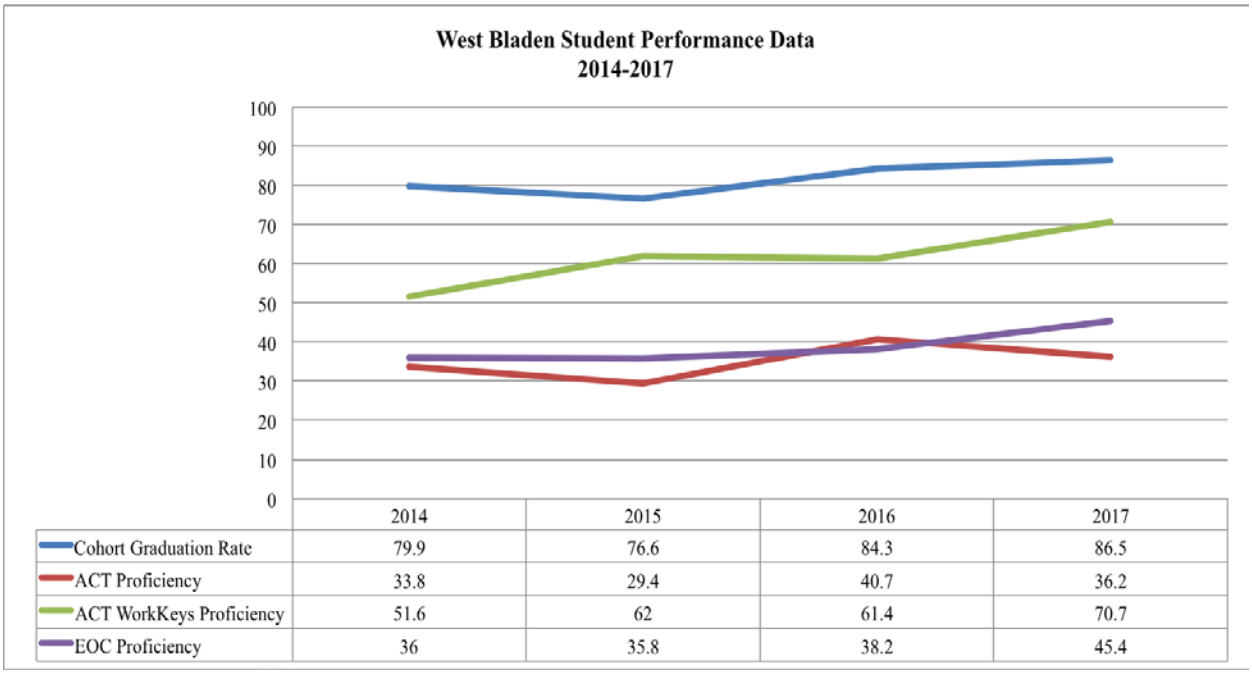
End-of-Course tests (EOCs) are unique to North Carolina, but most states use varied assessments to measure end-of-course achievement. While every course has an end-of-course exam, only Math I, English II, and Biology are currently used in the school performance grade. EOC scores for Bladen County and West Bladen High School continue at a level below that of other districts throughout the state. Between 2013 and 2015, the state experienced a steady increase in scores from 44.1% to 57.9% proficient. The district's improvement was not as steady, moving from 25.6% proficient in 2013 to 39.6% proficient in 2014 and down to 37.4% proficient

in 2015. West Bladen High School remained about 20 points behind the state in proficiency, moving from 28.7% proficient in 2013 to 35.8% proficient in 2015 and 60% proficient in 2017 (North Carolina Public Schools Report Card, 2018).

Figure 1 shows West Bladen's school performance data from 2014 through 2017. This data shows a positive trend over time, but much more improvement remains needed in each of these areas.

In comparison, graduation cohort trends for West Bladen and the state of North Carolina are similar. Figure 2 compares the four-year graduation cohort rates between West Bladen and the state of North Carolina. Figure 2 shows a positive trend in the graduation rate for West Bladen High School, but ultimately, the goal is for all students to graduate within four years of entering high school.

There are other factors to be examined among students across the nation, state, district, and local schools that indicate the pervasive nature of underachievement plaguing Bladen County students. These factors include attendance, classroom performance, daily engagement in classroom activities, and participation in extracurricular activities. However, because standardized assessments are often used as measures of success and serve as the basis for predicting economic competitiveness and global readiness, schools must examine the causes and mitigating factors that contribute to students' underachievement and failure in school, which often lead to dropping out. If students can be coached and mentored to stay on track towards graduation, the success of students and the nation as a whole will be viewed differently. The belief in our educational system's ability to prepare students for the careers of the future will no longer be questioned; the validity of our policies and expenditures will be restored.



	2014	2015	2016	2017
Cohort Graduation Rate	79.9	76.6	84.3	86.5
ACT Proficiency	33.8	29.4	40.7	36.2
ACT WorkKeys Proficiency	51.6	62	61.4	70.7
EOC Proficiency	36	35.8	38.2	45.4

Figure 1. West Bladen High School student performance indicators, 2014-2017.

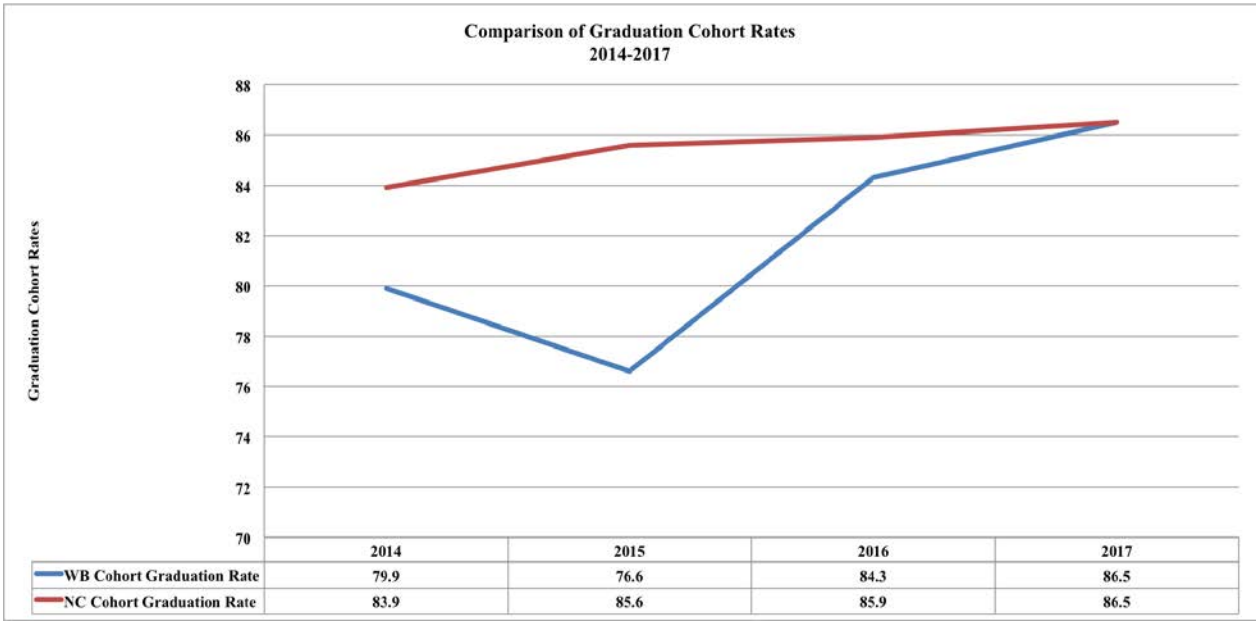


Figure 2. Comparison of West Bladen and North Carolina cohort graduation rates, 2014-2017.

According to research, there has been little widespread success in eliminating underachievement. Typical approaches have been general and focus on negative behavior. Other approaches have focused on specific targeted behaviors to improve achievement, such as targeting study skills, special classes, and behavior management techniques (Renzulli, Baum, Thomas, & McCluskey, 1999). This study will examine the components of the MTSS system to develop a network of support for at-risk students. This will include both their parents and teachers in order to gain a better understanding of internal and external contributing factors. By focusing on the root of the problem, targeted solutions can be developed which help underachievers be encouraged and achieve success. If this population can rise to the expectations set for them, our educational system and society as a whole will reap the benefits.

Bladen County high school students underperform their state and national peers. At West Bladen High School, approximately 10% of students are currently at-risk of failure due to attendance and academic issues. The MTSS framework will be implemented to address these problems. Using implementation science, the fidelity and sustainability of the MTSS framework will be examined to help struggling students.

Need for the Study

When considering problems facing our nation's schools, a common complaint among administrators and teachers is underachievement and at-risk behaviors by students. As educators, we have encountered this among individual students, and it is plaguing schools nationwide. Student achievement and student success directly impact our country socially, politically, and economically. If we ignore underachievement, we will not only see dropout rates increase, but will also see an increase in unskilled labor, resulting in a generation of students unable to provide for themselves.

Test scores, specifically proficiency scores, are the largest component of the school accountability model in North Carolina. The accountability model for high schools includes attendance, math rigor, percentage of CTE WorkKeys completers, ACT scores, EOC scores, graduation rate, and growth. Preliminary results for West Bladen High School indicate that each of these areas improved except test scores for the 2015-2016 school year. One year of deflated test scores may not seem significant, but it is indicative of students' underachievement, especially for at-risk students. ACT scores are among the lowest in the region, EOC scores have remained stagnant for several years, and truancy is a persistent problem.

By examining the group of students identified as underachievers, research will give insight into the root causes of underachievement and possible solutions to the problem. By approaching this as a problem of practice, specific causes can be targeted and remedies can be analyzed for their effectiveness. The MTSS problem-solving team can examine causes and possible solutions to the problems facing at-risk and underachieving students.

In addition to underachievement, discipline issues consume valuable instructional time for educators. Scott and Barrett (2004) found that handling a discipline issue could take up to twenty minutes for class time and up to forty-five minutes for an administrator. This takes away valuable instructional time from not only the individual student but from other students in the class as well. If a student is removed from class, he/she misses additional learning opportunities. Lost instructional time contributes to decreased academic achievement, and academic deficits may be compounded by behavioral problems (Flower, 2015).

The MTSS framework is a proactive approach that can prevent both dropping out of high school and underachievement. Educators know the impact of non-graduates on the economy—lost income, taxes, productivity, and increased involvement in the social service and criminal

justice systems (Bridgeland, Dilulio, & Burke Morrison, 2006). While high schools often take the blame for these societal problems, dropping out is a gradual process that begins years before a student enters high school and must therefore be considered a problem for all educators (Bridgeland et al., 2006). Combatting the dropout rate will require an aligned system of student support from pre-K through 12th grade. According to Hammond, Linton, Smink, and Drew (2007), the pathways that students take leading to school dropout or delayed graduation can be identified as early as 1st grade for some and 6th grade for the majority of students. The implementation of a clearly defined framework for intervention can close the achievement gap between Bladen County Schools' students and their peers throughout the state.

The MTSS framework provides three tiers of support with an emphasis on core instruction for all students. Tier one interventions are designed to help all students, while tier two supports are for students exhibiting academic, behavioral, or attendance difficulties that put them at-risk for dropping out or underachievement. Tier three interventions further support individual students for whom tiers one and two were not sufficient. Interventions are aligned to the needs of the student and may come from home, school, or community stakeholders (Bohanon, Gilman, Parker, Amell, & Sortino, 2016). Figure 3 shows the tiers of MTSS support. Each tier is a layer of added support. Tier 1, or core instruction, should be sufficient for 80% of students to master content and skills. Tier 2, or targeted intervention, provides additional support for approximately 15% of students that did not master classroom content. Finally, Tier 3, or intensive intervention, is needed for approximately 5% of the student population.

With little guidance from the state, North Carolina schools may implement MTSS differently, creating their own implementation standards and support systems. However, common characteristics of the MTSS framework exist, which may help with sustainability.

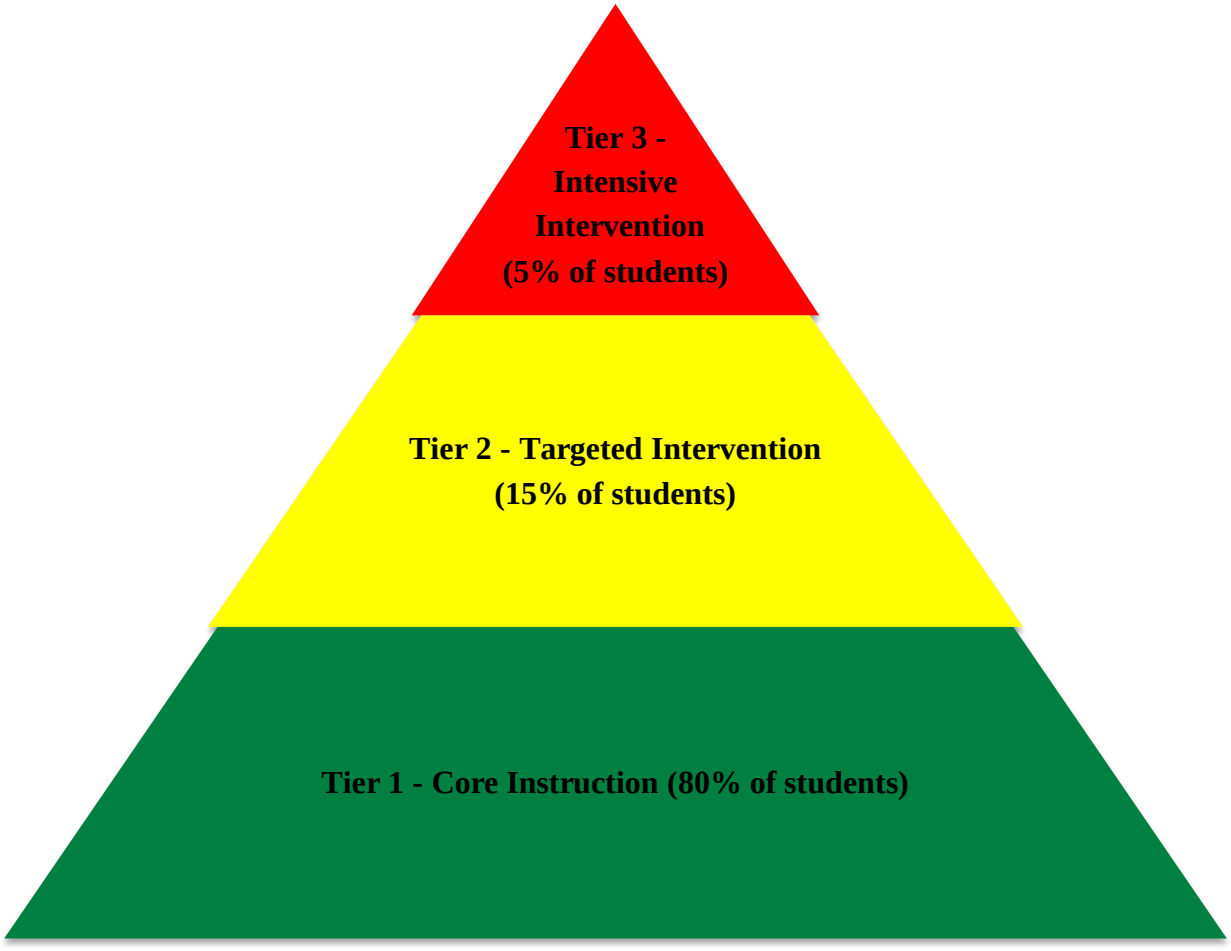


Figure 3. Tiered framework of MTSS support for students.

Support for MTSS is built with a strong team that is representative of the school community, alignment of goals with school improvement initiatives, effective training, high visibility of outcomes, and a purposeful effort to address organizational change (Forman, Olin, Hoagwood, Crowe, & Saka, 2009). MTSS frameworks are also more successful when measurable, specific goals are outlined for the program. The referral process must be effective and efficient, and school- and district-level administrators must support the school-based implementation (Bohanon et al., 2016).

Statement of the Problem

The number of at-risk students is increasing, and underachievement is more prevalent than ever. This disengagement comes in the form of reduced participation in learning and school activities, reduced perceptions of belonging at school, and decreased academic outcomes (Finn, 1989). Students cite social and interpersonal aspects of schooling as reasons for disengagement and dropping out of school (Bridgeland et al., 2006). Examining warning signs of disengagement through an early warning system and team problem-solving approaches to at-risk behaviors can prevent underachievement and dropping out of high school. To help students increase academic achievement, attendance, and likelihood of graduation, a team approach must encourage cognitive engagement, which is a sense of competence and control, perception of the relevance of school and instruction to the students' future goals, and their use of learning and problem-solving strategies to achieve their goals (Eagle, Dowd-Eagle, Snyder, & Holtzman, 2015). By developing and implementing a system to analyze readily available and highly predictive student academic and engagement data (absenteeism, course failure, GPA, credits, discipline), the problem-solving team can develop effective prevention strategies and review intervention over

time for the whole program and individuals. Follow-up and collaboration among critical stakeholders can increase student success.

Estimating the exact number of students who are underachievers is difficult when educators and even parents do not always know the potential of students. Focusing on the role of educators in closing the achievement gap, Ford, Moore, and Milner (2005), point out that educators often neglect or overlook the true potential of individual students, especially those of African Americans. Students labeled as gifted are often studied and identified as low performers or underachievers because of their identification by state criteria, which is typically based on IQ scores. Davis and Rimm (2004) propose that approximately 25% of high school dropouts are gifted students who became disengaged.

In studying African American males, Ford and Moore (2013) identify sixteen specific factors that contribute to the achievement gap. They are categorized into three major factors including home, school, and health/nutrition. Six familial and cultural correlates were also identified. These included parent-pupil ratio, parent participation, student mobility, talking and reading proficiency, excessive television watching, and summer achievement gains/losses. Seven school subfactors impacting achievement include curriculum rigor, teacher preparation, teacher experience, teacher absences/turnover, class size, access to and use of instructional technology, and fear and safety. Finally, health factors include hunger and nutrition, low birth weight, and environmental damage such as lead poisoning.

Additional research indicates that there is a gender gap in our nation's schools, but there are a variety of causes and recommendations to close the achievement gap. Data pointing to the existence of a gap include lower grades, higher dropout rates, higher rates of Attention Deficit Hyperactivity Disorder (ADHD), and more frequent placement in special education and

alternative programs. Researchers attributed the gap to motivational factors such as overuse of video games, lack of passion for real-world activities, lack of engagement in schools, and decreases in bonding among generations. Furthermore, males suffer from a lack of positive role models, confusion about cultural expectations, and disinterest in subject matter. External factors, such as socioeconomic status, culture, home environment, and parent involvement, significantly impact achievement. Teachers also reported that males were more likely to be disengaged because of the need for space and movement, learning styles, and reading selections (Clark, Lee, Goodman, & Yacco, 2008).

If these factors are controllable, then underachievement is a phenomenon that is reversible. However, specific research on the internal and external causes must be examined. With this in mind, early identification and intervention strategies should be implemented to prevent and/or reverse this trend. It is clear that the United States has fallen behind in academic achievement compared to the rest of the industrialized world (Oakland & Rosen, 2005). By continuing to allow underachievement and failure in school among any group, educators in the United States are limiting the future opportunities of some of the brightest students in America (Gabelko & Sosniak, 2008). It is no longer acceptable to simply admit there is an achievement gap. Underachievement is a real and growing cancer in our educational system, and we must commit to identifying the causes and seeking remedies that are then applied to our learning environments with fidelity.

Purpose of the Study

A successful MTSS framework is strong in each of the critical components. The early warning system alerts stakeholders of the need for intervention. Teachers, counselors, and parents may also observe behaviors that signal problems in the areas of academics, attendance,

and/or behavior for students. According to Reeves (2009), the problem faced by many schools throughout the nation is the "knowing-doing gap". Successful implementation must evolve from theory to consistent practices by the problem-solving team. The implementation of a new program, technique, or framework requires organizational change.

The purpose of this study was to utilize implementation science to determine the impact of the MTSS process to address at-risk student behaviors and determine barriers to implementation at West Bladen High School. Lessons learned from successful implementation will result in a model for other schools in Bladen County. Staff will be trained on the Multi-Tiered System of Support (MTSS) to develop specific interventions for underachieving and at-risk students. By examining each component of the framework, the school will train its MTSS team and implement the framework to address the academic, behavioral, and attendance needs of underachieving and at-risk students. A key component of this study will be early identification of at-risk students through the use of a universal screener and an early warning system (EWS). Based on the unique risk factors of students identified by the EWS, the MTSS team will use problem-solving strategies to design and implement a support plan, following the student's progress and adjusting interventions as necessary through each tier of support provided by MTSS.

West Bladen's implementation of MTSS adds emphasis to the early warning system (EWS) and support for freshmen through Peer Group Connections (PGC). Both of these components of the MTSS support system are new to West Bladen and are not currently utilized by any other school in Bladen County. Schools in two neighboring systems have implemented PGC successfully, but no other school is utilizing an early warning system. Because the state of

North Carolina has not implemented a structured model of MTSS statewide, schools are able to customize their system of support based on the needs of the school and the students.

The MTSS framework requires teams to use data to make decisions about student progress. Teams must recognize that student achievement is a collective responsibility of all stakeholders. School leaders and MTSS team leaders must facilitate the problem-solving process in a supportive, encouraging environment. Building the capacity of team members to identify student needs, align resources, and implement strategies will enable them to meet the needs of each student. Implementing the early warning system, followed by monitoring, mentoring, and communication among stakeholders, maximizes resources and informs decisions for student success.

Study Questions

For this study, the following study questions guided the research:

1. Has the implementation of the MTSS framework improved student performance, behavior, and attendance?
2. Has the implementation of the MTSS framework reduced the number of at-risk students?
3. Which components of MTSS need improvement and additional support

CHAPTER 2: LITERATURE REVIEW

This chapter will review MTSS and its implementation within school settings. Across the nation, state departments of education for implementation of MTSS offer guidance, but each school, district, and state has autonomy to implement the program based on their individual needs while still working within the framework. The lack of data on MTSS implementation means that schools do not have models of successful programs to use as exemplars (Cook, Lyon, Kubergovic, Browning Wright, & Zhang, 2015). A review of MTSS literature reveals a gap in resources for implementing and sustaining a successful program. Adoption of the MTSS framework requires a change of mindset for some educators, who are more likely to shift their thinking about this tiered framework when successful models are shared (Bohanon et al., 2016).

Beginning in the early 1990s, changes to the Individuals with Disabilities Education Act (IDEA) led schools to pay greater attention to student outcomes and prevention programs that reduce the number of students entering special education programs (Telzrow, 1999). The MTSS framework evolved as an umbrella that included Response to Intervention (RTI) and Positive Behavior Intervention and Supports (PBIS), a system modeled after reforms to the healthcare industry (Harn, Basaraba, Chard, & Fritz, 2015). RTI improved the use of universal screening tools and tiered supports in an effort to help struggling learners, while PBIS focused on behavioral supports. The reauthorization of IDEA in 2004 placed greater emphasis on RTI, noting that a student's response to research-based interventions should be part of the evaluation process for students with a specific learning disability. This legislation required research-based interventions and progress monitoring for any individuals not making adequate educational progress (Yell, Shriner, & Katsiyannis, 2006).

While some use RTI and MTSS synonymously, Orosco and Klingner (2010) explained that the tiered supports of MTSS move a student through prereferral interventions to progress monitoring in response to research-based instruction and increasing differentiated support. Special education placement is viewed by proponents of MTSS as a last resort. Hughes and Dexter (2011) point out that while RTI was designed as an intervention and prevention model, it has also been used to distinguish between students with Specific Learning Disabilities, or SLDs, and those who have received poor instruction. According to the Colorado Department of Education (2016), RTI remains a critical component of the MTSS framework. Originally developed to support struggling learners and identify students with learning disabilities, RTI remains part of the tiered system of support provided by MTSS because of its emphasis on collaboration among educational stakeholders (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

PBIS, which is also a tiered intervention system, was identified by IDEA in 2004 as a means to build a positive school culture. Gregory, Skiba, and Mediratta (2017) found that negative behaviors, suspensions, and incarcerations increased as a result of student punishments without positive alternatives. Horner and Sugai (2015) suggest PBIS should be a school-wide initiative with tiered supports like those of MTSS. There are four critical components of PBIS:

1. Research-based problem solving strategies to support student success
2. Implementation fidelity and sustainability
3. Meaningful data collection and progress monitoring
4. Implementation flexibility

The PBIS system of support should be based on data and strategies should be research-based. Schools are encouraged to use strategies and practices that best fit their social and cultural context. Each component of the PBIS system should be sustainable and implemented with fidelity. This includes teams and standards of protocol for decision making. Funding and organizational practices should support the implementation of PBIS as well. Data collection systems should be efficiently designed for staff to gather meaningful data. Implementation practices allow teams to develop effective practices through stages of adoption. The research of Horner and Sugai (2015) reiterates the importance of implementation science to move practitioners from theory to practice.

Problem identification and analysis as a component of a behavioral framework has been shown to improve academic and behavior difficulties. Behaviorally oriented assessment data, including functional behavior assessments (FBAs), have been shown to improve student outcomes (Strickland-Cohen, Kennedy, Berg, Bateman, & Horner, 2016). Recent data suggests that the rate of disruptive problem behavior in classrooms is escalating, and the single most common request for assistance from teachers is related to behavior and classroom management (Rose, Gallup, & Elam, 1997). Disruptive behavior can impede academic progress for students, and while the needs of students are complex, schools are often charged with both prevention and intervention (Barrett, Eber, & Weist, 2013).

While RTI and PBIS have been utilized for over a decade, changes to their names and meanings have left educators confused. The Colorado Department of Education (2016) reports that RTI and PBIS have been implemented in isolation in school districts throughout the country. One framework, integrating the two support systems, would more effectively address attendance, academic, and behavioral concerns, which are usually connected (Durlak, Weissberg, Dymnicki,

Taylor, & Schellinger, 2011). The MTSS framework provides continuous support for all children by incorporating the principles of RTI and PBIS. By examining assessment data through a problem-solving process, student outcomes can be improved. Collaboration and communication among stakeholders will prevent at-risk students from underachieving and failing.

The framework of MTSS utilizes a universal screening tool to find any student struggling academically or at-risk for social and emotional problems. The tiered structure of MTSS focuses the efforts of a collaborative team to design interventions that uniquely meet the needs of these students. These supports are no longer reserved for students that participate in the special education programs, but now give all students access to counselors, nurses, social workers, and educators who are experts in the area of academic struggles (Forness, Freeman, Paparella, Kauffman, & Walker, 2012).

The MTSS framework builds upon the strength of PBIS in utilizing an implementation science framework to connect research to best practices to meet the needs of all students. (Nordstrum, LeMahieu, & Berrena, 2017), and Rowan and Miller (2007) call this process improvement-by-design whereby schools determine their goals and design a program to achieve these goals. Implementation science examines the effective best practices and the factors that impact them, and it can help a school focus on overall school improvement by implementing MTSS in a series of stages (Bohanon & Wu, 2014). Each factor and strategy involved in the implementation of MTSS must continue to be studied to make advances and will be discussed further later in this paper.

Purpose of MTSS

Using the principles of RTI, PBIS, and evidence-based practices (EBPs), MTSS is a preventative system of continuous support that addresses barriers to learning (National

Association of School Psychologists, 2016). Using a problem-solving team, data is analyzed to support struggling students, but the system must be supported by the school administration. This ensures that the educational practices promoted by the school are research-based and support both general education and special education teachers. Furthermore, the administrator sets the standard for an atmosphere of collaboration among stakeholders to support each student's needs.

An integrated approach to problem-solving helps schools effectively deal with issues causing disengagement, including mental health issues. According to the National Institute of Mental Health (2017), approximately one in five teenagers faces a mental health disorder, reiterating the need for schools to provide supports for students who face academic and social-emotional problems. By conducting screenings, implementing tiers of support, and progress monitoring, the MTSS framework is a preventative measure to ensure that students do not get off track.

NC MTSS Core Components

Leadership

The leadership team is critical to the success of any improvement initiative or program implementation. The leadership team is responsible for sharing the components of the MTSS framework with the staff and engaging them in professional development. The leadership team ensures fidelity of implementation and planning for support in each part of the problem-solving process. Commitment to the framework's implementation by the leadership can determine the success or failure of the program. The school administrator is also responsible for communicating the vision and mission of the program, structuring the time for team planning, and funding any necessary elements of the framework. Finally, the leadership team must ensure that all stakeholders have access to necessary data to make decisions efficiently (North Carolina

Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

Building the Capacity/Infrastructure for Implementation

The school leadership team and the MTSS team leader should drive capacity building for MTSS. In order to ensure that all staff implement MTSS with fidelity, professional development and coaching on each component of the framework are essential. Data-driven problem solving can be difficult for some team members and moving along the continuum of tiered interventions is time consuming. Scheduling time and ensuring resources will help stakeholders in implementing the early warning system, universal screener, and customizing interventions for students (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

Communication and Collaboration

Communication and collaboration among stakeholders is critical to ensuring that social, emotional, academic, and behavioral components of the process are implemented successfully. Failure to monitor progress and provide descriptive feedback through each phase of the problem-solving process may hinder student success. Team members must communicate and make mid-course corrections as needed to ensure that student needs are met (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

Collaboration is critical to the success of MTSS and is more complex than cooperation. Group dynamics, especially as they relate to team leadership and collaboration, are critical to providing effective interventions and achieving successful results. Effective collaboration builds capacity for the team to implement interventions effectively through consensus among

stakeholders. Collaboration among stakeholders promotes sustainability through transparency of outcomes and sharing in the workload of this complex framework (Eagle et al., 2015).

Data-Based Problem Solving

While all components of the framework are essential, data-based problem solving may be the most important element. Using data-based problem solving to implement interventions and make decisions ensures that measurable, specific goals are individualized and increases the likelihood of successful outcomes. Data-based decision making can also eliminate barriers to implementation fidelity. North Carolina recommends a four-step problem solving approach: (1) define the goals and objectives, (2) identify barriers to implementation and outcome achievement, (3) develop a plan for implementing evidence-based strategies, and (4) evaluate the effectiveness of the plan (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018). This follows the Plan-Do-Study-Act cycle of improvement known to many educators (Donnelly & Kirk, 2015).

Three-Tiered Instructional/Intervention Model

The MTSS framework is comprised of three intervention tiers. Tier 1 includes interventions for all students. Tier 2 includes support for students not meeting the benchmarks with Tier 1 interventions. Tier 3 is the most intensive level of intervention and often includes individualized or small group instruction. Each level of support is added to the interventions of the previous level so that students get as many supports as necessary to eliminate barriers to success (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

Data Evaluation

Data evaluation is the means by which stakeholders assess the problem and implement a solution designed to meet the needs of the individual student. Educational decisions made by the MTSS team should be based on assessment and performance data. At each stage of the improvement plan, progress monitoring of data should determine the success of the protocol or the need for additional or different supports (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018).

When implemented with fidelity, the MTSS framework can provide academic and social-emotional support. It can be used to solve a variety of problems in the school setting. Improvements for the individual student and the school can lead to school climate and culture changes that benefit all students and lessen referrals to special education.

The Need for Problem Solving Teams

Today's students face social, emotional, physical, academic, and behavioral challenges and are ill-equipped to problem solve without the support of caring adults at home and school. Attempts to problem solve and help students in need have led to the creation of teams for student support. These teams vary in name and composition but have a common goal of helping students and their families to be successful in school. The work of these teams focuses on helping students and staff work through the problem-solving process for problem identification and development of strategies to improve or eliminate unacceptable behaviors. In 2003, 72% of states recommended or required problem-solving teams, sometimes referred to as prereferral teams, whose goals were to help students prior to a referral for exceptional children's services and placement, but little research exists on team membership or the interventions they implement (Buck et al., 2003). In 2004, IDEA encouraged the use of special education funds to

provide services for early intervention. This directive resulted from over-identification of students with learning disabilities who could have benefited from early intervention and prevented the labeling of these students (Fuchs & Fuchs, 2006).

These teams are of equal benefit to both teachers and students. While teachers have access to a wealth of resources, best practices by individual teachers are not always implemented. This may be due to limited knowledge and skills of the problem solving process, insufficient training opportunities, or time constraints. By using the team approach to problem solving, teachers are able to utilize different or new strategies and incorporate best practices that increase student achievement and proficiency, moving from easy to implement techniques to more specialized classroom instruction and management techniques (Truscott et al., 2005). Ultimately, this benefits the entire school, improving academic, behavioral, and social skills for students and increasing proficiency on standardized tests. According to Truscott et al. (2005), intervention teams have improved the skills and attitudes of teachers and students, especially when supported by the principal and the parent(s). Principals guide the team's purpose and are responsible for the school's resources and culture. Parental involvement leads to reinforcement of interventions at home. When stakeholders come together to develop, implement, and monitor interventions, children are supported in their educational endeavors.

Bahr and Kovaleski (2006) indicate that the team approach to problem solving grew rapidly as a result of over-identification of students with learning disabilities. RTI further clarified that identifying a child as learning disabled should only occur after pre-and post-interventions for academic concerns are implemented, validated and deemed ineffective (Gresham, Hunter, Corwin, & Fischer, 2013). During the intervention process, the role of the

team is to evaluate progress monitoring data in order to determine the effectiveness of interventions (Bahr & Kovaleski, 2006; Gravois & Rosenfield, 2006).

Burns, Peters, and Noell (2008) define the role of the teams as identification of goals and expectations for student performance and utilization of predetermined decision rules to determine additional interventions as necessary to meet goals. For teams to achieve this, buy-in and collaboration among staff is critical. MTSS team members may include stakeholders such as teachers, administrators, social workers, counselors, school nurses, parents and others that schools deem essential to the problem-solving process. Each of these team members must be committed to meeting the needs of all students. Vekaria (2017) interviewed principals implementing MTSS and reported higher success rates of buy-in when colleagues shared success stories and methods of implementation.

Parental buy-in was also increased by sharing information with all parents on the purpose and framework of MTSS.

Steps in the Problem Solving Process

Before the work of the MTSS team actually begins, there is work for the school's leadership and improvement teams. For some schools, this process evolves over time, but in North Carolina, schools were divided into implementation waves, and all schools must implement the MTSS framework during the 2018-1219 school year. Bohanon and Wu (2014) suggest implementation through the lens of implementation science - enhancing a school's success rate by viewing the initiative as a schoolwide improvement effort. Utilizing implementation science and working through each phase of the process, schools increase buy-in and gain a better understanding for the necessity of interventions. Implementation science also

helps schools make the connections among the MTSS framework and the school's mission and vision (Bohanon et al., 2016).

Six stages of implementation are outlined in the research, but the implementation timeline may be varied based upon the needs of the school. Stage one is exploration and adoption. The primary goal of this stage is buy-in, which basically falls on the leadership and school improvement teams. By examining current data and connecting it to the school's mission, the leadership can help educators see the value in both the framework and working through a systematic process to resolve problems, whether they are academic, behavioral, or social-emotional in nature (Bohanon et al., 2016).

Stage two, program installation, involves team building, establishing roles, and establishing meeting logistics. Stage three, initial implementation, involves working with small groups equivalent to a pilot program. This ensures that all stakeholders understand their roles, documentation, and the entirety of the process with a small number of students. This sets the groundwork for successful implementation on a larger scale. The fourth stage is known as full operation, which aims to change the mindset of the entire staff through consensus building. As staff work collectively through the process, clarity of mind and purpose are achieved. The fifth stage, known as innovation, builds on current practices and employs the creativity of the entire staff to provide additional support for struggling students at each tier of intervention. Finally, sustainability is the sixth stage, and this focuses on future goals and soliciting the support of new stakeholders, including community members. This stage involves additional training for staff and visioning by the leadership team. It is important to note that schools can be at varying levels of fidelity and development in each of these stages, and schools may need to revisit various stages over the first few years of MTSS implementation (Blasé, Fixsen, Sims, & Ward, 2015).

When teams begin the work of MTSS, they must implement a problem-solving model in order to operate effectively and efficiently. The intervention process begins with a request or referral from a teacher who notices an issue with a student in his/her class. Data is presented by the teacher on the student's strengths and weaknesses in order for the team to analyze the problem. The team then writes a precise statement of the problem and establishes a performance goal. Interventions are aligned to the goal and strategies for specific classroom support among stakeholders is outlined. A timeline is established for progress monitoring during the intervention. At each follow-up meeting, outcomes of the intervention are evaluated. Any necessary adjustments to the interventions are determined at subsequent meetings (Cook et al., 2015).

Early Warning Systems

The high school dropout rate is often viewed as a high school problem, but the behaviors that lead to disengagement at the high school level can be seen in the early years of a student's educational journey (Finn, 1989). Patterns of disengagement can be seen as early as first grade for some students and sixth grade for a majority of students. Sarlo (2017) reports that when high schools examine disengagement factors among dropouts such as poor attendance, course failures, and discipline problems, patterns of behavior emerged in the formative years of school.

When intervention teams examine readily available data to identify students at-risk, there is increased likelihood that prevention and intervention strategies will increase the success of students and increase the graduation rate (Freeman & Simonsen, 2015).

Identifying students at the first sign of disengagement significantly improves the likelihood of re-engagement and successful school completion. By reviewing indicators of at-risk behavior, schools and districts can identify and serve students earlier, shifting their focus from

the prevention of negative outcomes such as dropping out to promoting student achievement and support (Landis & Reschly, 2013).

Strengthening Early Warning Systems

Early warning systems utilize a systematic approach to reviewing readily available student data on attendance, behavior, and course failures to determine students that are at-risk of falling behind and dropping out of school. By identifying these students before they fall behind their cohort, interventions can be personalized to meet the needs of the individual students and their families. Sarlo (2017) suggests recognizing both cognitive and psychological indicators of disengagement. Cognitive indicators include students' perceptions such as irrelevance of instruction, lack of control over their education, and personal incompetence. Psychological indicators include relationships with adults. While attendance, discipline, and course failures may be the symptoms of disengagement, social and intrapersonal aspects of school are often cited as the root of dropping out of school (Bridgeland et al., 2006). Therefore, students' perceptions of belonging and support, along with involvement in school activities, have an impact on whether students remain in school (Reschly & Christenson, 2006).

Sarlo (2017) recommends strengthening early warning systems and the work of the MTSS team by ensuring that all students have a personal relationship with an adult at school. School personnel should have a systematic process for reporting concerns about students experiencing difficulty with peer and adult relationships or connections. Schools should also offer opportunities for student engagement in clubs and extracurricular activities, noting those students that are not actively engaged in some form of activities beyond the classroom. Finally, schools should consider surveying students to assess their goals and aspirations, the sense of control over educational choices, and the relevance of coursework (Sarlo, 2017).

Interventions Teams

Truscott et al. (2005) conducted surveys of schools to assess the composition, goals, and work of prereferral intervention teams (PITs). The researchers found that 69% of states mandated and 86% recommended or required prereferral intervention teams. Despite the mandate, 85% of schools surveyed utilized prereferral teams. The teams were composed of various members, and while their primary goal was to recommend additional support for students, limited recommendations for instructional modifications were implemented. Unfortunately, many of the interventions implemented were directed at the student and were rarely evidence-based. Therefore, a key component of implementation must be professional development on defining the problem, problem solving, alignment of effective interventions, and progress monitoring in order for the MTSS team's work to effectively address academic, behavioral, and social-emotional needs. According to Truscott et al. (2005), PITs must focus on specific behavioral interventions, curriculum-based assessment, and classroom management practices in order to be effective.

Intervention teams must be mindful that the goal of the MTSS process is not to refer students to special education. Problem identification, instructional and assessment modifications, and progress monitoring must have a team approach rather than leaving a classroom teacher to implement interventions in isolation.

Summary

At-risk students may have academic, behavioral, and/or social-emotional struggles that contribute to disengagement from school. Problem-solving teams that identify these students early and effectively address their issues may reduce the risk of course failures, attendance and discipline issues, and reengage students, keeping them on track for graduation. The leadership

must be committed to an evidence-based program that is implemented with fidelity and built upon a foundation of collaboration, transparency, and collective outcomes in order to ensure sustainability. The MTSS framework, when implemented with fidelity, provides support for all students rather than only a small minority of students who would have traditionally been referred to special education.

By using problem-solving teams, stakeholders can collaborate while working through the phases of MTSS. At the conclusion of this study, the MTSS team will reflect on each of these phases and determine areas of strength and weakness, making changes as necessary for future planning and sustainability. In addition, lessons learned will be shared with other schools in Bladen County in order to create a model for implementation for other teams.

CHAPTER 3: METHODOLOGY

Introduction

This chapter describes the methods used to investigate the study questions for this study. This study addresses the implementation of MTSS at West Bladen High School, the largest school in Bladen County, North Carolina. While its test scores and graduation rate are gradually improving, these data remain indicators that its students are underachieving when compared to students around the state and the nation.

One of the major problems in implementing and sustaining MTSS is lack of support and guidance from the state. Schools and districts are gathering their own information and working within the framework of MTSS to implement their own programs with no exemplars or support in the form of professional development from the North Carolina Department of Public Instruction (NCDPI). At the high school level, the elements of PBIS are less commonly used than at the middle and elementary levels, making this component of the framework a new initiative. While West Bladen High School (WBHS) has addressed individual student academic needs, a comprehensive systematic approach to provide students support in academic, behavioral, and social-emotional areas prior to referral to the exceptional children's program has not been the norm. To fully implement MTSS, the school's approach will be to follow the tenets of implementation science and phase in MTSS by building support among stakeholders and examining the components of each phase for additional improvements for future years. In addition, lessons learned will be shared with schools throughout Bladen County in order to refine the implementation process and provide an exemplar for other schools.

When examining the principles of system change, challenges arise for schools in understanding how to effectively implement MTSS and how to maintain and sustain a successful

program (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). Challenges emerge at all levels and include insufficient resources, limited involvement and support from leadership, inadequate professional development, misalignment between student needs and practices, and lack of differentiated support in the classroom (Fixsen, Blasé, Metz, & Van Dyke, 2013). Effective evidence-based programs and efficient implementation are required to ensure that programs are implemented with fidelity and provide appropriate benefits and services to students. There is much research on the components of the MTSS framework, and researchers consider it an evidence-based program; however, consistency of implementation and few exemplars have made this a program that is uniquely implemented in each school in Bladen County.

The researcher followed the stages, or core components of implementation science to implement the MTSS process as West Bladen High School. These stages include exploration, installation, initial implementation, innovation, and sustainability. Research indicates that the stages of implementation and their outcomes exist independently of the quality of the program or the practice being implemented (Fixsen, Blasé, Naoom, & Wallace, 2009). Because the MTSS framework is required by the state of North Carolina for problem solving and addressing at-risk behaviors, this research did not consider the validity or viability of the components of the framework.

The purpose of this study is to utilize implementation science to determine the impact of the MTSS process in addressing at-risk student behaviors and determine barriers to implementation. The key component of this implementation will be the use of a universal screener as a part of the early warning system to identify at-risk students and provide support through the MTSS team to reduce at-risk behavior. Once the students are identified, the intervention process will begin by progress monitoring freshmen at the end of each nine weeks,

and the MTSS team, the students, and their parents will implement interventions aligned to the tiered framework. Progress monitoring will be conducted and supplementary interventions will be added as necessary. Results of the study will be used to revisit necessary phases of the implementation process and results will be shared with other schools throughout the county in order for a professional development plan to be recommended to the superintendent to help schools continue the implementation process with fidelity.

The study questions are presented in this section. In addition, procedures used to collect data, survey instruments, and data analysis procedures will be addressed in this chapter. The protection of subjects will also be addressed in this chapter.

Study Questions

In this study, the following questions will guide the research.

1. Has the implementation of the MTSS framework improved student performance, behavior, and attendance?
2. Has the implementation of the MTSS framework reduced the number of at-risk students?
3. Which components of MTSS need improvement and additional support?

West Bladen High School has begun the exploration and installation phases of MTSS implementation, as early adopters of the program required for implementation during the 2018-2019 school year. Prior to the NCDPI's requirement of MTSS, West Bladen High School utilized RTI to help some struggling students, but this process was not implemented with fidelity. PBIS had not previously been used by the high school to address behavioral challenges.

At this time, the state's universal screener is too cumbersome to implement. NCDPI has instructed districts to wait on a new universal screener to be released as part of the Every Child

Accountability and Tracking System (ECATS). ECATS replaces our previous data repository for the Exceptional Children's Program, Comprehensive Exceptional Children Accountability System (CECAS), and includes data on all students. The West Bladen MTSS team will use two universal screening tools to identify at-risk students for the referral to the team. The first is an at-risk indicator number assigned by PowerSchool, our student information system, based solely on grades, attendance, and incidents of inappropriate behavior. The second is a spreadsheet of incoming freshmen and upperclassmen who possess one or more at-risk indicators. Either of these tools, along with classroom observations, can be used to start the referral process to the MTSS team. Classroom teachers and administrators can complete the referral process for students at any time; however, these two universal screening tools will identify students that should be referred once teachers have implemented tier one supports in their classroom. The team will begin the referral process for any student not previously referred who is deemed at-risk by one of these tools.

In Figure 4, teachers are asked to identify their three lowest performing students. In Figure 5, students are assigned a risk index number based on parameters set by the Bladen County Testing and Accountability Department. Data in this table is updated weekly, giving administrators a current view of students at-risk. The risk index for grades, attendance, and overall risk are assigned ratings of 0 to 4, with 0 having the lowest risk and 4 having the highest. Risk is measured in increments of 0.5, with grades and attendance averaged to determine an overall rating.

In the initial implementation phase, West Bladen changed the structure and meeting schedule of its Student Services Team (SST) team to the requirements of the MTSS framework. The MTSS team is comprised of a representative from each instructional area, a counselor (who

Student	Grade Level	Teacher	Class	Area of Concern (Grades, attendance, behavior, other)	Projected Letter Grade	Referred to MTSS (Y/N)

Figure 4. At-risk students identified by classroom teachers and/or administrators.

Student	Grade Level	Grade Risk	Attendance Risk	Risk Index

Figure 5. At-risk students identified by PowerSchool.

serves as the team chair), the school nurse, a social worker, and the principal. Additional stakeholders are invited to meetings to provide additional input and support as needed. The team meets weekly to review initial referrals and give updates on students in the intervention process.

As part of the initial implementation phase, the team aligned its goals to the school improvement plan. These goals are included in Appendix B. The team also reviewed the documentation provided by the district to be completed as part of the MTSS intervention process and digitized these forms for ease of use by stakeholders. All documentation submitted to the MTSS chair is housed in a red folder for each student in order to properly identify information about these at-risk students and ensure that these red folders are sent to subsequent schools should the student transfer.

In the innovation phase, the team will utilize the universal screener to identify at-risk students entering West Bladen High School. In addition, report cards will be reviewed at the end of each quarter to identify students having issues with grades and attendance. Data on all students will be entered into a universal screener. Students identified as at-risk by the screener will be brought before the MTSS team and data will be collected from each student's teacher to gain further information on the current level of support being offered to students at-risk. One core teacher will complete the initial referral with assistance from the student's other teachers. Once teachers have documented their concerns, parental contact has been made, and current interventions evaluated, the MTSS team will meet with the student and parent(s) to determine additional supports at each tier of the framework. Progress monitoring by the team will be conducted approximately every four to six weeks, depending on the needs of the student.

West Bladen High School is participating in a yearlong grant known as Peer Group Connections, or PGC. This grant is funded by the Center for Supportive Schools. This grant

teaches upperclassmen to mentor underclassmen through weekly outreach meetings. A key focus of this research will be on the school's freshman class of students. Each freshman is placed in a homeroom, with a teacher that follows the student through all four years of high school. Each homeroom is also assigned two upperclassmen leaders, either juniors or seniors, or a combination of both. The pair of mentors leads a variety of outreach activities that help freshmen navigate the transition from middle school to high school, discuss challenges and surprises that arise, and address stressors. These activities also help freshmen make friends and ensure that they have two upperclassmen whom they can trust and an adult who will serve as their advocate throughout high school.

As part of this research, attendance, behavior, and grades for this group of freshmen will be examined at the end of each nine weeks. In addition, this data will be compared to the data for last year's freshman class. Students who meet the criteria of the county's data decision rules will be followed through the MTSS process to ensure that they stay on track towards graduation through successful completion of coursework.

Fidelity of implementation and organizational support will be key factors in the sustainability of MTSS implementation. An agenda and meeting minutes will be kept for each meeting of the MTSS team. Anecdotal notes will be maintained for each meeting to include next steps and follow-up measures for each student in the MTSS referral process. These notes will be placed in the corresponding red folders. At the beginning of the school year and the conclusion of this study, MTSS team members will be surveyed to determine additional training, phases to revisit in the implementation phases, and suggestions for improvement. Questions for each team member are as follows:

1. What additional training do you believe would benefit you for the MTSS process?

2. What additional training do you believe the team needs for the MTSS process?
3. In preparation for next year and future teams, which phase of implementation should be revisited to strengthen the team's procedures at West Bladen?
4. How can the school's leadership team offer additional support to the MTSS team?
5. What suggestions do you have for improvement of the MTSS process at West Bladen?

Results of these pre- and post-implementation questions will be analyzed and used to plan for sustainability of the MTSS process. Team member responses will not be personally identifiable in these surveys.

Participants

No individual participants will be identified in this study. Names of students will be redacted to prevent identification of specific individuals. Data used in the universal screener will not be personally identifiable. The number of students identified at-risk at the beginning of the school year as a result of the early warning system will be compared to the number of students served through the MTSS process and the number of students on track for success at the end of this study in order to determine if the implementation led to a reduction in the number of at-risk students. Furthermore, risk factors for students identified through the early warning system will be examined to determine the impact of the interventions on the aforementioned factors.

Summary

The high school graduation rate impacts society as a whole, but it is often viewed as only a high school problem. Schools across the country are examining ways to engage and advise students, and make connections that will ensure students graduate ready for college and/or a

career. Once students get off track, the proper supports and interventions are needed to ensure that they improve their attendance, grades, and behavior. Other students are disengaged from school because of problems beyond the control of the school; however, the proper interventions by relevant stakeholders can support students and keep them on track for graduation and out of the exceptional children's program.

Traditionally, students who needed additional support have been referred to the exceptional children's program, resulting in over-identification, especially in students of low socio-economic status, minority ethnic groups, and students with higher incidents of suspension (Sullivan & Bal, 2013). Use of universal screeners, progress monitoring, and tiered interventions can help students experience success in school and remain on track for graduation (Bohanon et al., 2016).

The MTSS process focuses on core instruction and support for all students. By implementing MTSS at West Bladen High School, at-risk students will be identified earlier and interventions can be designed to meet their unique needs. Each implementation phase will be examined through this study and participants will provide feedback to determine recommendations for sustainability and replication across the district. Data collected from this study will be provided to the superintendent in the form of recommendations for best practices for all schools in Bladen County working through the implementation phases. This program will be evaluated based on the fidelity of implementation. The phases of implementation will be outlined, and data will be collected to measure the accuracy and consistency of each implementation task. A review of data will include recommendations for future changes to the implementation at West Bladen High School.

CHAPTER 4: DATA ANALYSIS

The purpose of this study was to examine the implementation of MTSS in order to help students who are identified as at-risk in order to keep them on track towards graduation. The study looked at MTSS practices including the development of an early warning system, monitoring of student progress through report card checks, assigning mentors for weekly support, and meeting with stakeholders to develop support plans for students identified as at-risk according to the Bladen County Schools' data decision matrix. To address these components of the study, the researcher utilized data available on students through PowerSchool including Exceptional Children (EC) and English Learners (EL) identification, excessive absences, previous retentions, and excessive discipline incidents for all incoming freshmen and identified freshmen who were potentially at-risk. Grades, attendance, and discipline were reviewed for all freshmen for each of the first three reporting periods of the 2018-2019 reporting periods. Students identified as at-risk were assigned mentors and supported by the MTSS team. The school implemented Peer Group Connections as a Tier 1 support for all freshmen in order to maximize student success throughout their first year of high school. The researcher examined the results of a state-required survey of the MTSS implementation, known as the Self-Assessment of MTSS (SAM) in 2018, and the Facilitated Assessment of MTSS (FAM-S) in 2019. Each piece of data was used to make recommendations for strengthening the MTSS program implementation within the context of the implementation science framework.

The following study questions guided this study:

1. Has the implementation of the MTSS framework improved student performance?
2. Has the implementation of the MTSS framework improved student behavior?
3. Has the implementation of the MTSS framework improved student attendance?

The answers to these questions required the school to examine each component of the MTSS program at West Bladen High School and look for areas of improvement in its implementation in order to strengthen student outcomes. MTSS team members were also surveyed to determine areas of training and resources to be implemented in the future to further support the team's efforts.

This chapter details the impact of West Bladen's MTSS program on student grades, behavior, and attendance. The findings of the research are discussed through the presentation of quantitative and qualitative data. Each component of the MTSS program at West Bladen High School is described. A discussion of the findings is also included in this chapter.

Participant Characteristics

MTSS is a program for all students, utilizing evidence-based practices to support students at-risk of falling behind in school because of poor academic performance, attendance, or behavior. All students are supported by MTSS through tiered interventions that increase in frequency and intensity, depending on the individual needs of the students. The students at West Bladen High School are economically disadvantaged, with 71% qualifying for state and/or federal assistance. This is an increase from 33% during the 2017-2018 school year, an increase attributed to Hurricane Florence in the fall of 2018. Ten percent of the population qualifies for the Exceptional Children's Program, and the EL and Migrant Programs serve 10% of the student population. Academically and Intellectually Gifted Students (AIG) comprise 12% of the student population. Twenty-five percent of the student population is Black, 48% is White, 22% is Hispanic, and 5% identify as American Indian or Two or More Races.

West Bladen High School's 2018-2019 freshman class is comprised of one hundred seventy-one students. Eighty-eight of these students are female, and eighty-three are male. Fifty

percent of these students are White, 27% Black, and 17% Hispanic. Fourteen percent of freshmen are served by the Exceptional Children's program; 8% are identified as Academically Gifted. The Migrant and English Language departments serve 8% of the freshmen class.

An early warning system is a tool used to identify students at-risk of failing as a result of predetermined risk factors. Bladen County Schools has developed a decision matrix based on attendance, failing core classes, and discipline incidents (see Figure 6).

Previous retentions are also a risk factor, which indicates students are more likely to be off track for graduation (Hughes, Cao, West, Allee Smith, & Cerda, 2017). Table 1 summarizes the characteristics of the nineteen freshmen identified as at-risk by the early warning system. Nineteen freshmen enrolled with at least one risk factor for academic struggles according to the early warning system, and ten students had multiple risk factors upon entering ninth grade (see Table 1).

During the 2018-2019 school year, four of these students transferred to other high schools. Three students no longer exhibited the risk factors that led to identification of at risk. Two students remained on the list with multiple risk factors, while all other students on the list had dropped from multiple indicators to only one remaining indicator of risk (see Table 2).

The nineteen freshmen identified by the early warning system were assigned mentors at the beginning of the school year (see Table 3). Five additional freshmen who were retained the previous year were assigned mentors for support. Mentors met weekly with students to check on academic, behavioral, and attendance issues. Report cards were reviewed throughout the year, and follow-up meetings were scheduled with parents to discuss interventions and progress monitoring. Interventions were tailored to meet the needs of each student based on his/her risk factors. Students with excessive absences signed attendance contracts agreeing to not exceed

	Attendance	Behavior	Academic Performance
Elementary	5+ Tardies/Early dismissals within a single quarter Absences more than 10%	More than 2 office discipline incidents	Below research-based thresholds on multiple measures of early literacy or math, grade retention
Middle	5+ Tardies/Early dismissals within a single quarter Absences more than 10%	More than 2 office discipline incidents	Below targets on multiple measures of reading and/or math, failing core classes, historical repeated failure on summative assessments, grade retention
High	5+ Tardies/Early dismissals within a single quarter Absences more than 3 days in a course within a single quarter	More than 2 office discipline incidents	Failing core classes, poor credit earning behavior, multiple course failures, historical repeated failure on summative assessments, grade retention

Figure 6. Bladen County Schools Data Decision rules for MTSS Referrals.

Table 1

Early Warning System Identification by At-Risk Indicator for Incoming Freshmen

	Previous Retention(s)	Failing 2 or more core classes	Attendance (10% or higher absences)	2+ Discipline Incidents in Previous School Year	Multiple Risk Factors	Total
Males	3	9	8	6	8	13
Females	2	2	2	3	2	6
EC/EL/504	2	2	3	4	2	6
Black	4	4	3	5	4	8
White	1	7	6	3	5	10
AI/Other	0	1	1	1	1	1

Table 2

Retained Freshmen Served by the MTSS Team

	Previous Retention(s)	Failing 2 or more core classes	Attendance (10% or higher absences)	2+ Discipline Incidents in Previous School Year	Multiple Risk Factors	Total
Males	3	3	3	3	3	3
Females	2	2	2	0	2	2
EC/EL/504	2	2	2	2	2	2
White	4	4	4	2	4	4
Hispanic	1	1	1	1	1	1

Table 3

Freshmen Referred to the MTSS Committee During the 2018-2019 School Year

	Previous Retention(s)	Failing 2 or more core classes	Attendance (10% or higher absences)	2+ Discipline Incidents in Previous School Year	Multiple Risk Factors	Total
Males	0	3	2	1	2	5
Females	0	2	2	0	1	3
EC/EL/504	0	1	1	0	1	2
White	0	4	4	0	3	5
Black	0	1	0	1	0	3

the allowable seven absences per semester, which is established for all Bladen County Schools students (see Appendix C). Behavior Intervention Plans were written for students with continued discipline infractions (see Appendix E). Students with academic struggles were offered research-based support including tutoring, preferential seating in class, copies of presentations from the teacher, and other Tier II interventions. These interventions were personalized to the needs of each student, documented in a support plan, and monitored by the MTSS team, which met weekly and reviewed the progress of each student (see Appendix F).

These interventions were also offered to upperclassmen with identified risk factors exhibited during their high school years (see Table 4). Thirty students in grades ten through twelve were identified by the MTSS team's early warning system during the 2018-2019 school year. Of these students, seventeen are White, seven are Black, four are Hispanic, one is American Indian, and one is multi-racial. Eighteen upperclassmen were referred to the MTSS team for support during the 2018-2019 school year (see Table 5). An administrator, teacher, or parent referred students to the MTSS team for support (see Appendix F). The team served only eighteen of these forty-eight students. Tables 4 and 5 include double head counts for upperclassmen in each category.

After receiving mentoring support and Tier II and III interventions, seven upperclassmen were removed from the MTSS list. Two students, identified as having 504 plans as a result of preexisting medical conditions, remained on the MTSS list because of excessive absences but no additional risk factors. Eleven students remained on the MTSS support team's list. Of these eleven students, six had multiple risk factors for failure. Of the fifty students served by the MTSS team, seven freshmen no longer needed support at the conclusion of the study, which is a reduction of 21.9%. In addition, upperclassmen results included a 38.8% reduction (see Table

Table 4

Early Warning System Identification by At-Risk Indicator for Upperclassmen

	Previous Retention(s)	Failing 2 or more core classes	Attendance (10% or higher absences)	2+ Discipline Incidents in Previous School Year	Multiple Risk Factors
Males	7	5	6	2	5
Females	2	3	10	0	2
EC/EL/504	1	2	4	0	2
Black	3	3	3	1	3
White	5	4	11	1	3
Hispanic	0	0	1	0	0
AI/Other	1	1	1	0	1
Total	9	7	16	2	7

Table 5

Upperclassmen Referred to MTSS by Parents, Teachers, or Staff

	Previous Retention(s)	Failing 2 or more core classes	Attendance (10% or higher absences)	2+ Discipline Incidents in Previous School Year	Multiple Risk Factors
Males	3	8	8	2	4
Females	0	5	1	0	2
EC/EL/504	0	1	5	0	1
Black	2	6	4	1	4
White	1	4	5	1	2
Hispanic	0	3	0	0	0

6). Thirty-two freshmen and eighteen upperclassmen were supported. Nineteen freshmen were identified using the early warning system. Thirteen additional freshmen were recommended for support through the MTSS team after the first reporting period and as a result of grade retention.

Freshmen received additional support through Peer Group Connections (PGC), which included weekly meetings and lessons on character building, responsibility, and trust. Each freshman homeroom was supported by two upperclassmen during their weekly forty-five minute lesson. Of the freshmen supported through MTSS, three identified by the early warning system did not require additional support at the end of the school year. Three referred during the school year no longer required additional support. One of the freshmen supported through the MTSS process because of grade retention was back on track with grades, attendance, and recovery of credits, allowing her to be promoted with her classmates. Five freshmen on the MTSS support list transferred from West Bladen to another high school, and two students were assigned to the Alternative Learning Program for the remainder of the school year. MTSS successfully supported seven freshmen who are currently on track for graduation success, and twenty-five freshmen require continued support. Seven of eighteen upperclassmen were removed from the MTSS list and were on track for graduation.

Of the students served by the MTSS team during the 2018-2019 school year, eighteen were females, and thirty-two were males. Twenty-six of these students were White, while nineteen were Black. In addition, there were four Hispanic students and one American Indian student receiving support. Fifteen students received supplemental support outside of the MTSS team as a result of an Individualized Education Plan (IEP), Limited English Proficiency Plan (LEP), or a 504 plan for health conditions that impact their learning and school progress. Five students, all freshmen, transferred to another high school while being served by the MTSS team,

Table 6

Students Exhibiting Success Through MTSS Interventions

	9th Grade	10th Grade	11th Grade	12th Grade
Male	5	3	1	1
Female	2	2	0	0
EC/EL/504	1	0	1	1
Black	4	1	0	1
White	3	2	1	0
Hispanic	0	2	0	0
AI/Other	0	0	0	0
Total	7	5	1	1

and this information was sent with the cumulative records for the receiving school. No upperclassmen on the MTSS support list transferred out of the school.

The MTSS team supported fifty students during the first year of implementation. Twenty-eight of these students showed improvement in the areas of grades, attendance, and behavior. Of the fifty students served, fourteen were successfully removed from the MTSS support team's list of at-risk students. Only fourteen continued to struggle with multiple at-risk indicators. All others eliminated their risk factors or reduced their risk indicators to one remaining factor. At-risk behaviors were eliminated for four females and ten males. Six of fourteen were White, two were Hispanic, and six were Black. One of these students was served by the Exceptional Children's Program, and two had 504 plans.

For both freshmen and upperclassmen, thirty students experienced difficulty with course credit and poor performance on standardized assessments. As a result of attendance, twenty-two students were served by the team, and of these students, fourteen were at-risk because of both attendance and course failures. The monthly attendance percentage for all students at West Bladen High School during the 2018-2019 school year is consistent and does not have significant fluctuation (see Table 7). This rate was not significantly different from previous school years, with an average daily attendance of 95.20% during the 2017-2018 school year and 94.88% during the 2018-2019 school year. However, the students on the MTSS list missed at least 10% of their school days each semester, increasing the amount of instructional time missed.

Finally, PowerSchool, the student data information system utilized in North Carolina, assigned a risk index from one to four for each student in the area of grades, attendance, and behavior. The district level coordinator has the ability to adjust the rating for each component of this index, with zero being the lowest level of risk and four being the highest. Each risk indicator,

Table 7

West Bladen High School 2018-2019 Average Monthly Attendance

Month	ADM	ADA	Attendance Rate
Month 1	688	668	97.09%
Month 2	692	667	96.39%
Month 3	691	660	95.51%
Month 4	695	658	94.68%
Month 5	681	637	93.54%
Month 6	673	631	93.76%
Month 7	665	627	94.20%
Month 8	664	628	94.57%
Month 9	660	628	95.10%
Total	678	664	94.98%

grades, attendance, and discipline was assigned a rating, increasing by increments of one half of a point from lowest to highest level of risk for grades, attendance, and discipline. If a student exceeds the rules of data decision matrix, he or she is automatically given a rating of four. Each student supported in this study had a level four risk in the category or categories that required support for MTSS. The average risk index for the entire group of students supported by the MTSS team was 2.4, and by the end of the study, their average risk index had decreased to 1.6. For freshmen, the average index decreased from 2.3 to 1.5.

Study Question 1 Findings

Study question one examines the impact of the MTSS implementation on student performance in their classes.

Six freshmen supported by MTSS improved their grades such that they were removed from the list of students served by the MTSS team. A total of seven students identified by the early warning system or referred were removed from the list at the conclusion of the 2018-2019 school year because their grades, attendance, and behavior were satisfactory. Twenty-five of the fifty students served were identified as at-risk because of multiple risk factors including course failures, attendance, and behavior. At the conclusion of this study, the number of students served by the MTSS team for multiple risk indicators was reduced to eighteen.

Study Question 2 Findings

Twenty-seven students were identified with attendance issues, and only twenty continued to be served because of attendance issues. Five of these students have 504 plans because of illnesses that significantly impact their attendance, and will continue to be served by MTSS throughout their high school careers. Finally, nineteen students were identified as at-risk because of behavioral concerns. This number was reduced to nine by the conclusion of this study.

One retained freshman reduced her risk indicators from two to one, catching up on all missing coursework but continuing to struggle with attendance. A second freshman who had been retained during the 2017-2018 school year eliminated all risk factors and is no longer served by the MTSS team. In addition, twelve freshmen had reduced their risk indicators or eliminated all at-risk behaviors outlined for this study. Eight upperclassmen reduced their risk factors to one at-risk indicator.

Discipline was the indicator with the largest improvement. Only one student, who is also served by the Exceptional Children's Department, needed a Behavior Intervention Plan (BIP), and a second student, also served by the Exceptional Children's Department successfully eliminated a BIP. The number of students with discipline as an at-risk indicator reduced from nineteen to nine.

Study Question 3 Findings

Study question three examines the areas of improvement for the West Bladen High School MTSS initiative. At the onset of this study, the MTSS and School Improvement (SIT) Teams completed the North Carolina Self-Assessment of MTSS Implementation (SAM) (NC MTSS Livebinder). This survey was also completed at the conclusion of this study; however, the 2019 version of the survey included two new questions, and was renamed the Facilitated Assessment of MTSS – School Level (FAM-S). North Carolina originally began using the SAM in 2016 after adapting questions from Florida's version of the survey (NC MTSS Livebinder). The 2019 version of the survey, now known as the FAM-S, is designed to provide feedback to the school and district-level personnel in order to provide support for the implementation of MTSS tiered support. Results of this survey are outlined in Table 8. Appendix H compares the results of each question on the SAM and FAM-S.

Table 8

West Bladen MTSS Implementation Survey Results

Domain	SAM	FAM-S
Leadership	46.7%	72.2%
Building the Capacity/Infrastructure for Implementation	45.5%	67.7%
Communication and Collaboration	41.6%	66.7%
Data-Based Problem-Solving	33.3%	61.9%
Three-Tiered Instruction and Intervention Model	38.0%	61.9%
Data Evaluation	46.7%	77.7%
Total	41.9%	67.5%

Six domains of implementation were assessed to determine areas of growth for the implementation team and West Bladen High School: leadership, building capacity/infrastructure for implementation, communication and collaboration, data-based problem-solving, three-tiered instruction and intervention model, and data evaluation. The team's efforts were rated on a continuum from not implementing (0), to emerging/developing (1), to operationalizing (2), to optimizing (3). Each question was evaluated individually and as a complete domain for growth. The SAM contained thirty-nine questions while the FAM-S contained forty-one questions.

Two questions varied between the SAM and the FAM-S. The first question to be added to the FAM-S was in the area of leadership. The question asked the team to examine the existence of a linked teaming structure that facilitates the implementation of a multi-tiered system of support for attendance, behavior, social-emotional, and academic support. The team rated itself as emerging/developing on this question. The criteria required the team to meet regularly with agendas, minutes, and defined roles. To move to the next level of implementation, the team must invite outside agencies to the MTSS meetings and all team members must demonstrate a higher level of expertise in problem-solving, knowledge of student behaviors, and increased knowledge of school operations.

The second question added to the FAM-S asked the team about its implementation of a comprehensive system of assessment that identifies at-risk students, determines why they are at risk, monitors progress, informs planning, and measures success. The team rated itself as operationalizing for this question. To move to the optimizing level for this question, the team is required to systematically identify students, adjust plans to meet their needs, and reflect on future improvements.

Nine questions showed no growth by the team. Five of these questions were in the area of building capacity/infrastructure for implementation. Each of these questions focuses on coaching and professional development for all staff and the identification and allocation of resources to support this initiative. During the 2018-2019 school year, members of the MTSS team completed a series of three modules from the NC Department of Public Instruction to support MTSS implementation. These self-paced modules included the following:

- Module 1.1 Establish Readiness and Sustainability for School Teams
- Module 1.2 Define Essential Elements of Core Support for School Teams
- Module 1.3 Analyze Core Support for School MTSS Teams

Follow up for the 2019-2020 school year will include completion of these modules by all West Bladen High School Staff members. In addition, the MTSS team will complete modules 2.1 – 2.3. These modules include the following:

- Module 2.1 Establish Readiness and Sustainability for Building An Intervention System
- Module 2.2 Build A Literacy Component To An Intervention System for School Teams
- Module 2.3 Build A Math Component To An Intervention System for School Teams

Completion of these modules will give all staff members a better understanding of the work of the MTSS team while helping them to understand that this is a whole-school improvement initiative.

In the leadership domain, only one question's rating showed no growth. This question asked the team to rate the implementation process as part of the overall school improvement planning process. To move to the optimizing level, the team should be able to implement each

critical element of the MTSS program with fidelity and use data-based problem solving for continuous school improvement. Use of the Plan Do Study Act Model for problem solving in the future will enable the team to ensure that any improvement initiatives are executed and monitored with fidelity and then modified as needed for continuous improvement.

In the communication and collaboration domain, the team remained at the operationalizing level of implementation when asked about providing data on the MTSS implementation fidelity and student outcomes. The team provided staff data on the MTSS implementation twice during the school year, but in the future, they will provide data during weekly PLCs and monthly staff meetings. This will help the entire staff to understand the progress and gaps in student performance and expectations.

In the data-based problem-solving domain, the team noted no growth in the examination of patterns of student performance across diverse groups. To move from the emerging/developing level, the team must collect data on patterns of student performance across divers groups and to move to the optimizing level, the team must use the data to inform the MTSS implementation efforts. The team analyzed data on the students served by the MTSS team for this project; however, moving forward the team will closely analyze data on each sub group in the school accountability model.

Two questions in the three-tiered instruction and intervention model showed no growth for the team. Both of these questions focused on supporting students through tier one supports and tier two supports which are implemented school-wide and monitored using fidelity checks. To move to the next level of implementation for these two questions, the team must examine student needs and identify clearly defined school-wide expectations. The school must also move beyond academic content and instruction to social-emotional content and instruction. For the

2019-2020 school year, the team will use tier one and tier two intervention support matrices to ensure fidelity and progress monitoring. A sample developed from the standard protocol intervention matrix, provided by the North Carolina Department of Public Instruction, can be found in Appendix I (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018). This sample was not available at the onset of this study.

Freshmen and their peer leaders were surveyed at the conclusion of this study to assess their beliefs about the assistance provided by Peer Group Connections. One hundred seventy freshmen were expected to respond to the survey. Fifty-six percent of the freshmen class, or ninety-six students submitted responses. Twenty-two of twenty-four peer group leaders completed the same survey (see Table 9).

Survey results for both freshmen and PGC leaders followed similar patterns. Students were asked to rate the impact of the program on their beliefs about school and social emotional learning areas including educational aspirations, connectedness/engagement, self-awareness/self-management, social/relationship skills, and social awareness. Ratings for each question were on a continuum from not at all, very little, somewhat, quite a bit, to a great amount. For peer leaders, the highest learning area was social awareness, while for freshmen, it was educational aspirations. The lowest area among freshmen and peer leaders was connection/engagement. The question with the lowest positive endorsement for PGC leaders was whether or not this program improved communications with their teachers, and for freshmen, this rating was the second lowest. The lowest positive endorsement for freshmen was whether or not this program would help them to be a leader. Every question was positively rated by at least 50% of the respondents (see Table 9).

Table 9

Summary of Responses to Peer Group Connections Support Survey

Educational Aspirations	Care more about graduating from high school	Care more about graduating from college	Be more prepared for college and work	Care more about staying focused to do well in school	Increase motivation to earn or maintain high grades	Total Positive Endorsement
Freshmen	68%	64%	63%	60%	57%	63%
PGC Leaders	91%	91%	86%	86%	82%	87%

Connections/Engagement	Feel more connected to your peers	Care more about attending school every day	Feel more like you belong at school	Feel more positive about school		
Freshmen	60%	57%	55%	57%		57%
PGC Leaders	86%	86%	86%	77%		84%

Self-Awareness/ Self-Management	Stay out of trouble in school/Be a role model	Improve your ability to set and achieve goals	Make better decisions	Be more likely to ask for help when you have a problem	Improve your ability to deal with stress	
Freshmen	66%	66%	60%	59%	56%	61%
PGC Leaders	95%	91%	91%	82%	95%	90%

Table 9 (continued)

Social/ Relationship Skills	Improve communication with your peers	Develop more relationships with peers	Improve your ability to resolve conflict	Improve communications with your teachers	Be a leader/ teacher	
Freshmen	66%	65%	57%	53%	51%	58%
PGC Leaders	95%	95%	91%	68%	100%	90%

Social Awareness	Listen to and respect your peers even if you do not agree	Work better with others to complete a project or assignment	Be more thankful for what is positive in your life	Value working together with others to reach a consensus	Increase your motivation to help your community	
Freshmen	64%	63%	63%	59%	57%	61%
PGC Leaders	95%	95%	100%	95%	82%	94%

Summary

The purpose of this study was to evaluate the implementation of MTSS during its first year at West Bladen High School. Despite the fact that West Bladen was part of the third wave of implementation, very little support was provided by the state for districts and schools in implementing this new system. This study examined the impact of the school's MTSS program supports on academics, attendance, and behaviors. In addition, it also considered areas of implementation that needed to be refined or revisited to increase the success of teachers supporting students and the MTSS team as it supported students. Moving through three tiers of support, MTSS integrates systems of classroom instruction, data analysis, and mentoring to provide customized support for students with at-risk indicators.

West Bladen's primary focus during the first year of implementation was the use of an early warning system to identify students with at-risk behavior patterns, attendance issues, and academic struggles. Once referred to the MTSS team, an individualized plan for support was written by the team in collaboration with the student and parents. While the school is still in an early stage of implementation, improvement was seen among over half of the students supported by the MTSS program. Only eighteen of fifty students served continued to exhibit multiple risk indicators.

A significant source of support for all freshmen was the Peer Group Connections program, in which two upperclassmen, juniors and seniors, were paired with freshmen homerooms. The size of each homeroom was limited to fifteen students. Each week, the upperclassmen facilitated forty-five minute lessons on topics such as communication, relationships, decision-making, and study habits. Both freshmen and their PGC leaders viewed this program positively as reported in a culminating program survey.

The MTSS team completed a pre-study survey known as the SAM, and they completed the FAM-S at the conclusion of the study. These surveys, differing only by the addition of two questions from the state of North Carolina, showed confidence and growth among the MTSS committee and the School Improvement Team in their ability to lead the school through the support process and future implementation.

In addition, the MTSS team completed three professional development modules to support their implementation, and the entire staff will follow suit during the 2019-2020 school year. These modules helped the team better understand the support process and the core elements of MTSS.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

The purpose of this study was to examine the implementation of the Multi-Tiered System of Support for at-risk students at West Bladen High School. This was the first year of implementation for this program, and little guidance has been provided by the state. Schools were able to differentiate each phase of the implementation process to meet the needs of their students and staff. Varying levels of knowledge and expertise among team members and staff members at West Bladen High School impacted the level of support given to students and the fidelity with which supports were provided to students and families. This study specifically examined three questions: (1) Has the implementation of the MTSS framework improved student performance, behavior, and attendance? (2) Has the implementation of the MTSS framework reduced the number of at-risk students? (3) Which components of MTSS need improvement and additional support?

West Bladen High School was a wave three implementation school, which means that there were other schools within the district that had begun the implementation process. However, little information was shared among schools, and the district MTSS team was also in its infancy. North Carolina's Multi-tiered System of Support is modeled after that of Florida (North Carolina Department of Public Instruction, Division of Integrated Academic and Behavior Systems, 2018). Limited support documentation had been developed by the state at the inception of this study, and few professional development offerings were available to staff. While the school and the district have made great strides in implementing MTSS, there remains considerable room for growth in building the capacity of the MTSS team and evaluating the fidelity of the program to ensure that students are achieving success.

This study used implementation science to determine if the framework for the MTSS program was effective in eliminating at-risk behavior for students and to determine what improvements can be made to the current system to support students more effectively. The study looked at two key components of the MTSS framework, an early warning system for identifying students exhibiting at-risk behaviors and mentoring through a new program called Peer Group Connections (PGC) in which upperclassmen help freshmen develop academic, social, and emotional skills in order to help them have a successful first year of high school. Each of the fifty students supported in this study was assigned a mentor who met weekly with the student to check on his/her progress, and data on student performance in the areas of academic performance, attendance, and discipline were monitored through weekly reviews and progress monitoring by the MTSS team. Each student had an individualized plan for addressing specific concerns, and the team used research-based strategies to provide tier two and three interventions while the classroom teachers were responsible for providing tier one interventions. Teachers were also involved in providing tier two and three interventions as outlined in student support plans.

This chapter will provide a summary and an interpretation of the findings of this study. The procedure used for this study will be discussed, along with the demographics of the participants. Each study question will be discussed, and the conclusions drawn from the study will be analyzed. Implications and recommendations for further research, sustainability, and effective implementation of the MTSS program will conclude this chapter.

Summary of Findings, Conclusions, Implications, and Recommendations

Demographics

The MTSS team served fifty students during the 2018-2019 school year. Thirty-two of these students were freshmen, including five repeat freshmen. The remaining eighteen students were upperclassmen referred to the MTSS team for poor performance on at least one indicator of academic success. Many students at West Bladen High School have risk factors for getting off track and underperforming academically. While the average daily attendance for the 2018-2019 school year was approximately 95%, students with attendance issues miss an extremely high number of days, exhibiting chronic attendance problems. In addition, many students with discipline issues have recurring behavioral concerns.

When the MTSS model has been successful, the three tiers of interventions were designed to help 80% of students experience success through tier one, 15% through tier two, and only the remaining 5% required tier three interventions. At West Bladen, the tiered intervention model was inverted. The largest portion of students required intervention and support while only a small portion of the student body was successful through tier one interventions, or classroom instruction. The MTSS could not adequately support the large number of students requiring support through MTSS; therefore, the early warning system was used to identify freshmen needing additional support. All other students supported were referred to the team by at least one of their teachers.

Findings

This study began with a review of the historical data of the incoming freshmen and freshmen who were retained due to course failures. At the onset of this study, the student information system, PowerSchool, did not have a report that could easily generate a list of at-risk

students. An early warning system is being developed by the state of North Carolina and should be included as part of the Every Child Accountability and Tracking System (ECATS), which is a more comprehensive replacement to our database for the Exceptional Children's Program. ECATS holds information on all students within the school and district, and it will include MTSS plans and an early warning system in the future.

Because ECATS is still being constructed, the review of historical data on incoming freshmen was conducted manually. All student information was compiled in a spreadsheet identifying students that had previous retentions in their educational career, multiple course failures, attendance issues, and discipline issues. Identifying students at-risk for failure followed the guidelines of the Bladen County Schools data decision matrix. This matrix used three or more absences per quarter as at-risk attendance behavior for high school students. More than two discipline referrals identified a high school student as at-risk for failure as a result of behavioral concerns, and failing any core courses or multiple courses deemed a student at-risk as a result of poor academic performance.

Students were also referred to the MTSS team for support throughout the school year. A teacher, administrator, or parent could refer a student to the team. The individual who began the referral process provided demographic information and an overview of the at-risk behaviors for the student. The other teachers of the student provided input for the MTSS team regarding behaviors and incidents in each class. The MTSS team met with the student and parent, if they were available, to develop a plan of action for each student. A mentor from the MTSS team or another staff member was assigned to follow up with the student through weekly contact, and progress was monitored through weekly meetings of the MTSS team.

Each student in this study was assigned an at-risk indicator rating from zero to four. The indicator rating was established at the district level for all schools with zero equating to no risk, and four carries the highest risk. Grades, attendance, and discipline were assigned a rating for each student. At the completion of this study, the risk index for all fifty participants was reduced from an average of 2.4 to 1.6. Freshmen reduced their average index from 2.3 to 1.5.

In order to assess the readiness of the MTSS team for implementation, a survey called the SAM was administered to the MTSS and School Improvement teams at the beginning of this study. Individual responses were shared, allowing the teams to reach consensus on each question and determine the capacity of the team to implement the MTSS program. Data-based problem solving was the domain with the lowest rating of readiness, with all responses at the emerging/developing level.

The second lowest area of perceived readiness was the three-tiered instruction and intervention model. This domain was also primarily at the emerging/developing level or readiness for implementation. Building capacity, leadership, and data evaluation were the top three domains, all within one point of perceived readiness percentage. The overall perceived readiness was 41.9%.

The survey was conducted at the end of this study for comparison of capacity and growth. The second iteration of the survey was titled FAM-S, and two questions were added by the state of North Carolina. Data-based problem solving and three-tiered instruction and intervention remained the lowest domains, but the overall perceived capacity of the MTSS and School Improvement teams increased to 67.5%. Leadership and data evaluation were the two domains with the highest ratings. Building the capacity/infrastructure for implementation had the largest

number of questions that did not demonstrate growth, but the domain increased overall from 45.5% to 67.7%.

At the conclusion of the study, the teams rated the implementation of MTSS at the operationalizing level, showing growth from the emerging/developing level. Several questions were rated at the highest level, optimizing, and only five questions remained at this level of implementation. There were no questions at the not implemented level. While the surveys revealed growth in capacity building, they also indicated the need for future professional development for the team.

Each member of the MTSS team completed three modules of professional development offered by the NCDPI. Three additional modules will be offered during the 2019-2020 school year. In addition, all staff members of West Bladen High School will complete the first three modules. These modules would have been more beneficial to staff members if they had been completed prior to the implementation of the MTSS program. Completion of professional development prior to implementation would have increased understanding by all team members in how to implement each of the core elements of MTSS. Ongoing professional development will benefit classroom teachers as they implement tier one interventions and recognize the need to refer students to the team when these interventions are not effective in supporting student success.

Throughout the study, all freshmen were supported through weekly lessons facilitated by upperclassmen mentors. These lessons focused on developing communication skills, social/emotional and relationship skills, as well as social and self-awareness skills. This program for freshmen, known as Peer Group Connections (PGC), paired freshmen in groups of fifteen or less with two upperclassmen that served as role models and mentors. This weekly interaction

helped freshmen engage with their peers and talk about social issues that impacted them while at school.

Freshmen and peer group leaders were surveyed to determine the impact of the program on their outlook about school through five areas of social/emotional learning. In each of these areas, peer leaders and freshmen reported positive endorsements for the program. Survey results for both groups follow similar trends. Both groups gave positive endorsements on each question, but the lowest positive rating for freshmen referred to the program's ability to help them serve as a leader, while the peer leaders' lowest rating was on the ability of the program to help them communicate with their teachers. The highest rated question for freshmen was the program's ability to care more about graduating from high school. Peer leaders had two questions in which 100% of respondents believed in the program's positive impact. These questions included being a leader and being thankful for positive things in their lives.

These surveys indicate that both leaders and student benefited from the Peer Group Connections program. The positive endorsements of the program indicate that freshmen and peer leaders were more connected to school and one another. When students are more engaged in school and feel connected, they are more likely to stay on track towards graduation (Bohanon, Flannery, Malloy, & Fenning, 2009). MTSS efforts were aimed at keeping students engaged and involved in school activities, thereby increasing their commitment to education. The students served by the MTSS committee need additional support because of their risk factors.

Conclusions

MTSS is a school-wide reform initiative led by a team of individuals that use an integrated approach to solving social-emotional, academic, behavioral, and attendance issues of students. This tiered approach evolved from the combination of the PBIS program and the

Response to Intervention program. This allows schools to develop a plan to meet the needs of students through data analysis and progress monitoring. PBIS has become a widespread intervention program for targeting behavior, emphasizing rewards for positive behavior instead of punitive measures, while emphasizing evidence-based interventions and data-based decision making. The reauthorization of IDEA in 2004 required the use of PBIS interventions for students receiving special education services (Anello, Weist, Eber, Barrett, Cashman, Rosser, & Bazyk, 2017).

PBIS is viewed as an effective framework for targeting academic and behavioral deficiencies, and MTSS was designed to do the same. However, West Bladen High School has not fully implemented PBIS. According to Bradshaw, Mitchell, and Leaf (2010) school-wide PBIS programs includes seven critical components. The first component is a school-level oversight or guiding team, which is comprised of a school administrator and six to ten teachers. This team provides leadership, guidance, and professional development for the school as a whole and key stakeholder in the implementation plan. The next critical component of PBIS is an external behavioral specialist, who can provide technical assistance. An additional key element is the establishment and definition of positive student behavior expectations, which are shared with both students and staff. Three to five school-wide expectations are taught to students and staff and posted in all classroom, as well as non-classroom, settings. A school-wide system of tangible rewards is established and used consistently. Staff and administrators also work collaboratively to establish a system for behavioral violations. A formal system is then used to collect and analyze disciplinary data for decision-making.

West Bladen has established a team to review discipline data as a part of the MTSS tiered system approach to helping students. However, when considering the key elements of PBIS, the

school has not established three to five school-wide behavioral expectations and a rewards system. The school follows the Bladen County Schools Code of Conduct, but PBIS emphasizes positive statements of behavioral expectations rather than a system that focuses on consequences of inappropriate behavior. These behavioral expectations should be established and approved by the school faculty and then displayed in a matrix throughout the school. These should be clearly established and shared with all students, but especially those with behavioral risk indicators. Mentors can reiterate these expectations during weekly meetings with students.

While the state of North Carolina has been implementing the MTSS program since 2016, it has provided little guidance for schools and limited professional development, leaving schools to implement in isolation and develop standard treatment protocols on their own. A district-level support for team for MTSS implementation was in place, but schools had the autonomy to operate under minimal guidance and few fidelity checks. The state provided a data decision matrix, and districts were able to utilize the state's recommendations or make their own. North Carolina has not provided a universal screener, early warning system, treatment protocols, or progress monitoring tools to support MTSS teams. This has left schools to implement their own MTSS programs without guidance or a systematic means to determine the effectiveness of the program.

One of the elements of MTSS implementation that was successful for West Bladen High School was the mentor/mentee relationship. Anderson, Christenson, Sinclair, and Lehr (2004) highlight the importance of relationships in preventing disengagement among students. For students showing signs of disengagement, both early identification and intervention are significant factors in preventing school dropouts. Evidence suggests that students at-risk of dropping out can be identified in elementary school, and academic engagement is a key

intervention. Studies suggest that multiple factors, including attendance and discipline, as early as the first grade are predictive of dropping out of school. By establishing relationships with students at-risk of dropping out, school staff can help students with negative attitudes about school. However, this must begin as early as possible. Identification of at-risk students through the early warning system and establishment of the mentor/mentee relationship may help students with negative attitudes about school.

Using implementation science, the data from the support of these students will be used to improve the fidelity of implementation and ensure student success in the future. The MTSS team will use the results of the study to improve each step of the process in supporting both students and staff in providing all three tiers of support to help students succeed. Chapter Five will summarize these findings and make recommendations for further practice and research. In Chapter Five, recommendations for practice and professional development will be made to help the MTSS team implement practices with fidelity in order to ensure student success.

Implications

MTSS has been shown to improve social and emotional skills, attendance, behavior, and academics for students in which schools have implemented with fidelity (Durlak et al., 2011). However, MTSS is an integrated approach to school-wide improvement, and school-level teams must work collaboratively to implement standard protocols for improvement. Teams must understand evidence-based improvements and provide professional development to team members to prepare them for the tiered system.

When teams use a consistent approach to problem solving and support for at-risk students, at-risk behaviors can be minimized or eliminated. Students in this study with identified research-based interventions in their support plan and frequent monitoring were more likely to

experience improved outcomes. Students whose parents did not meet with the team were less likely to experience success, as their level of buy in to the support plan was unknown. Weekly interaction with mentors was a critical component of success for these students. Of the students exiting the MTSS support program, each of these students had mentors that met weekly and made contact with their parents throughout the study to give progress reports. The mentors sent weekly updates to the MTSS team as well.

According to Freeman and Simonsen (2015), at-risk behaviors can be divided into two categories. The first category, status risk factors, include parental education and employment, socio-economic status, gender, age, native language, disability, and family structure. In contrast, alterable risk factors include attendance, behavior, and academic progress. Likelihood of dropping out of school increases when multiple risk factors are present. Furthermore, school-based factors as well as outside influences such as community and engagement in inappropriate behaviors outside of school can impact a student's decision to drop out of school. Dropping out of high school cannot be causally linked to one factor, but the most accurate predictor of dropping out may be failing grades and low academic performance over time (Bowers, Sprott, & Taff, 2012). This study supported this finding. Students with attendance issues, with the exception of those with long-term medical conditions resulting in a 504 plan, were able to improve their grades once their attendance improved. In addition, those with discipline issues were able to improve their grades once a behavior intervention plan was implemented. Students eligible to recover course credit through the credit recovery program were able to get back on track towards graduation and come off of the MTSS list. Those students remaining on the MTSS support list are still at risk because of failing course credits, and while multiple risk factors are impacting the success of these students, course failure will prevent them from graduating.

Adults who do not complete high school have more difficulty finding and keeping jobs and earn less money when employed. They are also more likely than high school graduates to be welfare recipients. Dropouts also experience more mental health issues including depression more frequently than high school graduates. Dropouts are more likely to engage in criminal activity, join gangs, and serve jail time than high school graduates (Freeman & Simonsen, 2015). If these risk factors are not identified and acted upon, dropouts will create economic and social problems as adults. While the school will continue to offer support to students on the MTSS list, those remaining on the list for more than one year are more likely to drop out. Most of West Bladen's students drop out after turning sixteen, which is in the latter part of their sophomore or junior years. North Carolina requires students under the age of sixteen to remain in school or both the student and the parent may face truancy charges. Therefore, after one year of MTSS support, students will have reached the age where they are able to drop out.

Students with a higher risk for dropping out of school must be provided support and intervention as early as possible in their high school careers. Schools must look at their environment, student-staff relationships, policies, procedures, intervention programs, early identification system, and progress monitoring tools. It is critical that schools make an impact on students and change negative behaviors while they are freshmen in high school. This is why the PGC program was so important in supporting students on the MTSS list. Developing positive self-image, good work habits, and engaging in school as freshmen is the focus of PGC, and this is pivotal to success for many students. As reported in the PGC survey, students in this study found that this program helped them to have a more positive outlook about school and feel more engaged in school. It also increased their positive outlook on post secondary opportunities.

Using implementation science to guide the development of the MTSS program at West Bladen High School, the team built upon previous knowledge of PBIS and RTI. Bohanon et al. (2016) recommend implementation through stages including exploration and adoption, in which the school leadership builds buy-in by demonstrating a need for change and a sense of urgency to initiate changes in policies and practices. It is also critical for the team to demonstrate the connection between the MTSS program and school-wide improvement efforts. The school's vision and mission should remain at the forefront of the change initiative. In this study, the MTSS team was selected by their teammates, with representation by each subject area plus support staff including guidance, social workers, the school nurse, and administration. This team communicated updates with the entire staff at monthly meetings, and each week, team members shared progress reports on students on the MTSS list through their Professional Learning Communities (PLCs). Data on student progress was shared in these focus groups and next steps were discussed. The MTSS team met monthly and provided updates to the School Improvement Team, ensuring that the findings and direction of the MTSS team was part of the overall school improvement efforts.

A team should implement MTSS through the second phase, which is known as program installation. Bohanon et al. (2016) recommend clear role designations, group norms, and communication protocols be established to assist the team through implementation. Teams should also consider piloting components of any program before full implementation. As the team increases credibility with the entire staff, additional innovations can be introduced as part of the multi-tiered approach to supporting students. As the school implements the three tiers of MTSS support, standard treatment protocols should be addressed, simplifying the process and ensuring consistency of interventions. Furthermore, sustainability must be considered, and

training should be provided for staff as new members join the team. The team should be mindful that these stages of implementation are not linear, and revisiting a phase may strengthen the implementation. Implementing with fidelity will ensure that ßschool-wide improvement efforts are successful.

Throughout the course of this study, MTSS team members completed three professional development modules. The team will complete three new modules during the 2019-2020 school year, and the entire school is following suit so that they understand each component of this initiative and buy into its benefits as a school-wide improvement effort. Throughout the study, team members shared strategies worked well for students with the team, and team members learned from one another. This enabled the team to discard less effective intervention strategies. Successful strategies will become part of the team's standard treatment protocol in the future. Consistent progress monitoring and anecdotal notes helped team members to understand the sense of urgency in helping these students.

Recommendations

Implementing a system of interventions for all students as a schoolwide improvement initiative is an enormous undertaking. It must be planned, implemented assessed, and revised to ensure fidelity of implementation and achievement of individual, team, and school goals. Utilizing the FAM-S to determine the readiness and capacity of the school and the team to implement is a critical first step. This tool can then be utilized at the end of each school year to measure growth for both the school and the team. The results of the FAM-S can guide professional development and goal setting for the MTSS committee.

To strengthen the intervention system utilized to support students, professional development must be designed and delivered to help educators adopt and modify practices.

Freeman, Sugai, Simonsen, and Everett (2017) recommend professional development that includes implementation supports to increase sustainability of new programs. Professional development that focuses on knowledge acquisition, lacks fluency building, and provides insufficient feedback will not bridge the gap between theory and practice. Professional development should be accompanied by coaching in order to help schools improve the impact and sustainability of reform efforts.

Coaching increases the efficiency with which new programs and strategies are implemented. Professional development, accompanied by coaching, provides additional support for teams and provides a means to ensure that each component is monitored for fidelity of implementation. This combination of support also ensures team accountability and provides support for problem solving. Reinforcement for action plans and improved communications are key to professional development and coaching efforts (Freeman, Sugai, Simonsen, & Everett, 2017).

Fidelity of implementation of each component of the MTSS system must be considered to ensure student success. While MTSS systems can be individualized, the Institute of Education Sciences recommends key components that should be consistent among programs (Dynarski, Clarke, Cobb, Finn, Rumberger, & Smink, 2008). First, students at-risk should be identified early through a data collection system, known as an early warning system or universal screener. Schools should consider graduation and dropout rates for both individual and groups of students. Students with a history of academic challenges should be identified upon entrance into high school, with ninth grade considered as the most important year for determining on-track behaviors. The academic progress of all students should be considered, but especially that of freshmen after both first and second semester. Every student's sense of engagement should also

be measured and monitored, and accurate records should be maintained for any students who withdraw from school.

The second key component of a successful MTSS program is an effective mentor/mentee relationship between students and staff. Mentors should be committed to supporting students and investing time to advocate for students. Mentors should be chosen and matched purposefully to ensure student success. They should meet with students regularly each week, and students should be provided with an opportunity to communicate with mentors regarding obstacles to student success. Mentors should be properly trained in addressing identified problems.

At-risk students should be provided with academic support in content areas, test taking skills, study and organizational skills, and social emotional learning. Durlak et al. (2011) emphasize social emotional learning as a means to alleviate stress and improve self-awareness, which in turn improves academic performance. These include problem solving and decision-making skills. Students that are academically off-track should have opportunities for credit recovery. Attainable academic and behavioral goals should be established for students. Benchmarks and student accomplishments should be recognized (Dynarski et al., 2008).

While tier one supports may be used for individuals or whole group instruction, establishing personalized learning environments and individualized instruction for students increases student engagement and a sense of belonging. Creative scheduling and encouraging student participation in extracurricular activities including clubs and sports will help students make connections and buy into the vision and mission of the school. Students that feel connected to the school and have a sense of belonging are less likely to drop out of school (Freeman et al., 2017).

Within the classroom teachers must ensure that instruction is relevant and rigorous in order to increase student engagement. This can be included as one of the areas of professional development for teachers. Students should have opportunities to expand their knowledge and skills. They should also be exposed to career opportunities and simulated work experiences. Schools should seek opportunities to partner with local businesses and organizations for job shadowing, internships, and employment (Dynarski et al., 2008).

Considering the whole child is the most effective way to meet the needs of at-risk students. Teams must examine multiple risk factors and past behaviors in order to develop a plan to meet the unique needs of each student at-risk of dropping out of high school. The MTSS team follows a tiered approach to addressing academic, behavioral, and attendance concerns for students. Early identification, progress monitoring, and mentor support are standard treatment protocols that schools must develop as part of the MTSS support system. Reviewing the success of the students supported by the MTSS team each year will allow teams to modify the approach and intervention strategies employed to benefit the students and keep them on track towards graduation.

Recommendations for further study and support for students and staff at West Bladen High School include greater emphasis on PBIS as a component of the MTSS framework. While a significant impact of the study was seen in discipline reduction, establishing school-wide behavioral expectations would be a preventative measure for students with behavioral challenges. Second, if a universal screener is provided by ECATS, its use would make early identification of students more efficient, and it therefore, should be utilized. Next, mentoring contributed to the success of the students in this study, and more formalized training should be offered to the staff to ensure consistency. Finally, additional changes to the program should be

considered utilizing organizational change management theory. To increase buy-in of all stakeholders, soliciting the support of innovators, early adopters, and the early majority can promote the success of the MTSS program and increase buy-in so that the initiative is viewed as a total school improvement effort.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/ORIC/irb**

Notification of Exempt Certification

From:	Social/Behavioral IRB
To:	Peggy Hester
CC:	Jim McDowelle
Date:	4/23/2019
Re:	UMCIRB 17-002434 Implementing MTSS

I am pleased to inform you that your research submission has been certified as exempt on 4/23/2019. This study is eligible for Exempt Certification under category #4b.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: WBHS SCHOOL IMPROVEMENT GOALS

School Goal 1: WBHS will increase performance composite proficiency scores to 70% or higher on all assessments included in the accountability model.

School Goal 2: During the 2018-2019 school year, WBHS will ensure that 100% of students have an advocate, experience positive transition, and are meeting graduation requirements through the advisor/advisee and Peer Group Connection (PGC) programs. (Transition)

School Goal 3: 70% of all West Bladen students will eat breakfast daily. (Safe Schools)

School Goal 4: 80% of West Bladen students will be served at the MTSS Tier 1 level. (Safe Schools)

School Goal 5: 100% of teachers will receive professional development on best practices and proven approaches to learning for all students.

School Goal 6: WBHS will increase parent, business, and community involvement in the academic growth, development, and advancement of students to at least 25%.

School Technology Goal 1: 100% of students will use digital tools/technology for summative assessments and to communicate and work collaboratively for learning in all core classes.

School Technology Goal 2: 100% of students and staff will utilize technology to improve their digital technology knowledge and skills according to the NC Digital Learning Plan.

School Technology Goal 3: WBHS will facilitate a school improvement planning process that is 100% centered around personalized learning supported by digital learning environments.

School Technology Goal 4: WBHS will leverage a minimum of five online communication channels to create and maintain open discourse and collaboration with community stakeholders to establish and meet learning goals.

School Technology Goal 5: 100% of students will be trained on digital citizenship.

APPENDIX C: WBHS ATTENDANCE CONTRACT

WBHS Attendance Contract

I, _____, understand that I am being asked to sign an attendance contract because I have been displaying behaviors consistent with a chronic attendance problem student. A chronic attendance problem student exhibits a pattern of behavioral characteristics, which interferes with the learning process of that student; thereby endangering the academic success of that student.

The following are behaviors I agree to improve:

1. I will attend every class every day. If for some reason I have a legitimate excuse for being absent, I will bring in the doctor's excuse to the front office the next day of attendance.
2. I will NOT have more than one (1) unexcused absence in any class, after today's date.
3. I will also make-up all missing work within two (2) days of returning to school.

In an effort to alleviate future repercussions, I have been counseled on the consequences of this behavior.

I understand that if I violate this agreement and have two (2) unexcused absences in a class again, I will NOT be allowed to appeal and will automatically lose credit in that course.

If I violate any of the above behaviors, I understand that I will be responsible for the consequences as determined by the Bladen County Attendance Policy and Principal Hester.

As a student at West Bladen High School, I understand that it is important for me to follow all rules and regulations. In addition, the high school will provide me with opportunities to meet with the school social worker, my counselor and administrator to discuss concerns as they arise. I am encouraged to discuss situations with the appropriate personnel in order to make the best informed decision for my future.

Regular school attendance is important in order for a student to maintain passing grades and to remain on track for graduation. Students and parents should refer to the county attendance policy.

_____ _____

Student Signature / Date Counselor Signature / Date

_____ _____

Principal Signature / Date Parent Signature / Date

APPENDIX D: BLADEN COUNTY SCHOOLS

ATTENDANCE POLICY GUIDELINES

Dr. Robert Taylor, Superintendent

Attendance Policy Requirement for Promotion/Retention/Passing Grades – Update

August 2013

The following attendance guidelines are approved for Bladen County schools. School administration, parent, and students should refer to this LEA policy when determining student promotion or retention.

	Principal/School follows LEA Policy	**Waiver requirements for promotion/retention** **Committee Review and Hearing**	**Superintendent Decision** **Review of waiver documentation**
High School	**Up to 7 absences Total Excused and/or Unexcused**	**8-15 absences Waiver Required**	**More than 15 Absences During the school year**

APPENDIX E: WBHS BEHAVIOR INTERVENTION PLAN

Bladen County Schools

BEHAVIOR INTERVENTION PLAN (BIP) REVIEW

STUDENT NAME: _____ ____ EC ____NOT EC DOB: _____

EC CASE MANAGER OR MTSS CHAIR: _____ SCHOOL: _____

DATE PLAN REVIEWED: _____

A. **Hypothesis: (This is found at the end of the FBA or beginning of BIP).**

When _____ during _____
trigger(s) ***setting***
the student _____ in order to _____.
behavior of concern ***function***

B. List the target behavior(s) identified for this student.

_____
_____

C. BIP Review
1. Based on periodic data collection, has the Behavior Intervention Plan been effective in reducing target behavior(s)? ____Yes ____No (if no, go to BIP Review Section D).
2. Has the student begun to use replacement behaviors successfully? ____Yes ____No (if no, go to BIP Review Section D).
3. Is additional information needed at this point? ____Yes ____No
4. If so, what is needed and who will be responsible for obtaining it? _____

D. Does the BIP need to be modified? ____Yes (if Yes, proceed to E) _____No (if No, skip E, go to F, fill in current reinforcements/rewards and continuum of consequences, and sign).
E. Identify area of the BIP being modified or changed.
Replacement Behavior _____
How, when and by whom will the student be taught new replacement behavior?
How _____
When _____ By Whom _____
How

_____
When _____ By Whom _____

Educational/Environmental changes or Interventions:

_____
_____
_____

F. Signatures

_____ ***LEA Representative*** ***Date*** _____
_____ ***Special Education Teacher*** ***Date*** _____
_____ ***MTSS Chair*** ***Date*** _____
_____ ***General Education Teacher*** ***Date*** _____
_____ ***Parent*** ***Date*** _____
_____ ***Student*** ***Date*** _____
_____ ***Other (Specify)*** ***Date*** _____

APPENDIX F: MTSS REFERRAL

NAME: _____ ID: _____ DOB: _____ AGE: _____
SCHOOL: WEST BLADEN HIGH SCHOOL GRADE: _____

PARENT(S): _____ TELEPHONE: _____
ADDRESS:
_____

PERSON(S) MAKING THE REFERRAL: _____ ROLE: _____
*FOR PARENTAL REQUEST FOR SST ASSISTANCE, PARENT SHOULD COMPLETE THE STUDENT SUPPORT TEAM-PARENT INPUT FORM, PAGES 1 & 2.
REASON FOR REQUEST – WHAT ARE THE CONCERNS ABOUT THE STUDENT'S PERFORMANCE?

_____

HOW AND WHEN WAS PARENT FIRST NOTIFIED OF THE STUDENT CONCERNS?
__PHONE __LETTER __CONFERENCE
(DATES OF NOTIFICATION) _____ DATE OF REQUEST:
_____

NOTE CONCERNS EXPRESSED BY
PARENT:_____

I. ACADEMIC SKILLS – IDENTIFY ANY AREAS IN WHICH THE STUDENT DISPLAYS A SIGNIFICANT STRENGTH (S) OR CONCERN (C)

READING	MATH	WRITTEN LANGUAGE	ORAL LANGUAGE
_____FLUENCY	____COMPUTATION	_____ VOCABULARY	__COMMUNICATION ___W/PEERS __W/ADULTS
___COMPREHENSION	_____ CONCEPTUAL UNDERSTANDING	_____ SPELLING/ PUNCTUATION	_____ FOLLOWING VERBAL DIRECTIONS
_____OTHER _____ _____	_____OTHER _____ _____	_____OTHER _____ _____	_____OTHER _____ _____

II. STUDENT STRENGTHS: (CHECK ALL THAT APPLY)

__ POSITIVE ATTITUDE __ HANDLES CONFLICT __ WORKS WELL INDEPENDENTLY __ TRUSTWORTHY __ TAKES PRIDE IN APPEARANCE __ COOPERATES __ RESPECTFUL TO AUTHORITY	__ ARTISTICALLY INCLINED __ TRANSITIONS EASILY __ ORGANIZED __ HIGH EXPECTATIONS FOR SELF __ HARD WORKER __ ATHLETIC __ GOOD SENSE OF HUMOR	__ WORKS WELL IN GROUPS __ RESPONSIBLE __ MOTIVATED __ POSSESSES LEADERSHIP SKILLS __ OTHER _____ _____

III. IDENTIFY AREAS IN WHICH THE STUDENT DISPLAYS SIGNIFICANT DIFFICULTIES OR FUNCTIONS SIGNIFICANTLY BELOW THE EXPECTED LEVEL.

LEARNING BEHAVIORS	*SOCIAL ADJUSTMENT*	*PROCESSING*	*ADAPTIVE SKILLS*
__ WORKING IN A GROUP __ WORKING INDEPENDENTLY __ DISTRACTIBILITY __ IMPULSIVITY __ ENERGY LEVEL TOO HIGH __ ENERGY LEVEL TOO LOW __ FRUSTRATION TOLERANCE __ ORGANIZATION	__ DEVELOPS APPROPRIATE FRIENDSHIPS __ RELATES APPROPRIATELY TO TEACHERS __ EMOTIONAL OUTBURSTS __ WITHDRAWAL __ CHRONIC LYING __ CHRONIC ABSENCES __ STEALING __ BULLYING __ DIFFICULTIES AT HOME	(MOTOR/AUDITORY/VISUAL) __ FINE MOTOR SKILLS/HAND EYE COORDINATION __ GROSS MOTOR SKILLS/GENERAL CLUMSINESS __REVERSAL/ TRANSPORTATIONS (LETTERS, WORDS, NUMBERS) __ MANUSCRIPT __ COPYING FROM BOARD __ VISUAL MEMORY __ RIGHT/LEFT CONFUSION __ AUDITORY MEMORY __ OTHER_____	__ DELAYED SELF-HELP SKILLS __ SOCIALLY IMMATURE __ IMMATURE LANGUAGE __ OTHER _____

IV. EDUCATIONAL HISTORY

GRADES REPEATED (SPECIFY): _NONE NOTED BETWEEN 3RD AND 9TH; FAILED AS 9TH GRADER 17-18/18-19 PROMOTED MIDYEAR

-ATTENDANCE REPORT -HISTORICAL GRADES

-DISCIPLINE REPORT -TEST SCORES

EXCESSIVE ABSENTEEISM:

GRADE: _____	**NUMBER OF DAYS ABSENT: _____**	**NUMBER OF TARDIES: _____**
GRADE: _____	**NUMBER OF DAYS ABSENT: _____**	**NUMBER OF TARDIES: _____**
GRADE: _____	**NUMBER OF DAYS ABSENT: _____**	**NUMBER OF TARDIES: _____**
GRADE: _____	**NUMBER OF DAYS ABSENT: _____**	**NUMBER OF TARDIES: _____**

EXTENUATING REASON(S) FOR EXCESSIVE ABSENTEEISM:

_____

INTERVENTIONS USED FOR EXCESSIVE ABSENTEEISM:

__LETTERS SENT TO HOME. __PHONE CALLS MADE TO PARENTS. __CALL SYSTEM CALLS TO PARENTS, __APEX CLASSES, __MODIFIED SCHEDULE

NUMBER OF SUSPENSIONS: ___ (ATTACHED DISCIPLINE REPORT)

IS THE STUDENT SERVED BY ESL? ____

HAS INSTRUCTION BEEN INCONSISTENT WITHIN A SCHOOL YEAR? ___NO ___YES (SPECIFY – I.E. SERIES OF SUB TEACHERS, ETC.)

HAS THE STUDENT HAD A CHANGE IN CLASSROOM ASSIGNMENT OR A CHANGE IN TEACHER WITHIN THIS SCHOOL YEAR? ___NO ___YES

ARE ACADEMIC DEFICIENCIES A RESULT OF THE LACK OF INSTRUCTION IN READING AND/OR MATH? ___NO ___YES

V. WHAT CLASSROOM STRATEGIES HAVE BEEN EMPLOYED TO ADDRESS THE STUDENT'S ACADEMIC CONCERNS PRIOR TO THE MTSS REQUEST? (CHECK ALL THAT APPLY)

CHECK	STRATEGIES	HOW LONG TRIED? BEGIN AND END DATES	OUTCOME OF STRATEGIES (DATA)
	INSTRUCTIONAL ACCOMMODATIONS		
	MODIFIED DEMANDS		
	MATERIALS MODIFIED		
	ALTERNATIVE MATERIALS		

	SMALL-GROUP INSTRUCTION	**DURATION: FREQUENCY:**	
	TUTORING		
	ASSISTIVE TECHNOLOGY		
	DAILY GUIDED READING		
	ESL SUPPORT		
	CONTRACT		
	ASSIGNED SEATING		
	REARRANGED PHYSICAL SETTING		
	PARENT CONFERENCE		

VI. **STUDENT DATA AND EVIDE*NCE***

***D*OCUMENTATION MUST BE PROVIDED FOR EACH STUDENT CONCERN. FOLLOWING ARE EXAMPLES OF THE TYPES OF EVIDENCE THAT MAY BE USED TO SUPPORT THE SST PROCESS. GATHER SUPPORTING EVIDENCE AND CHECK EACH TYPE OF EVIDENCE YOU WILL BE BRINGING TO THE FIRST MEETING OF THE STUDENT SUPPORT TEAM.**

___ **FORMATIVES/BENCHMARKS/SUMMATIVE ASSESSMENTS**
___ **STUDENT WORK SAMPLES**
___ **OBSERVATIONS**
___ **REPORT CARD**
___ **ATTENDANCE RECORDS**
___ **DISCIPLINE FORMS**
___ **RECORD OF OSS AND ISS SUSPENSIONS AND/OR DISCIPLINE REFERRAL(S) INFORMATION**

VII. PLEASE ATTACH A NARRATIVE INDICATING THE EVENT(S) THAT LED TO THIS REFERRAL. EACH TEACHER SHOULD ADD TO THE NARRATIVE AND GIVE THEIR NAME, CLASS PERIOD OF THE STUDENT, AND THE SUBJECT TAUGHT. HERE ARE SOME QUESTIONS TO GUIDE YOUR RESPONSE:

1. **WHERE DOES THE PROBLEM TYPICALLY OCCUR?**
2. **WHEN IS THE BEHAVIOR MOST LIKELY TO OCCUR?**
3. **WHAT DO YOU THINK THE STUDENT GAINS OR AVOIDS BY DEMONSTRATING THIS BEHAVIOR?**
4. **DO YOU BELIEVE THE STUDENT CANNOT (IS UNABLE TO) OR WILL NOT (IS UNWILLING TO) DEMONSTRATE THE DESIRED BEHAVIOR?**

APPENDIX G: WBHS SAMPLE MTSS STUDENT INTERVENTION PLAN

Name: J. C. ID: DOB:09/29/2001 Age: 16
School: West Bladen High School Grade: 10
Parent(s):K. C. and B. J. Telephone: _____Email:_____
Address: _____Zip: _____
Person(s) making the referral: R. Jones Role: Life Science Teacher
*For parental request for SST assistance, parent should complete the Student Support Team-Parent Input Form, Pages 1 & 2.

Reason for Request – What are the concerns about the student's performance?

Student is failing two classes and barely passing his other two classes – support is needed to help this student receive a passing grade. He needs one-on-one assistance on most assignments because of poor reading skills and excessive absences.

How and when was parent first notified of the student concerns? (Choose one below)

- ❑ Phone
- ❑ Letter
- ❑ Conference

(Dates of notification)	Date of Request:
2-16-18 and 3-27-18	4-9-18

Note concerns expressed by parent:

Teacher talked to the father and he said he would have a talk with him.

I. ACADEMIC SKILLS – Identify any areas in which the student displays a significant strength (S) or concern (C)

READING	MATH	WRITTEN LANGUAGE	ORAL LANGUAGE
Fluency ❑ S ❑ C	Computation ❑ S ❑ C	Vocabulary ❑ S ❑ C	Communication ❑ w/Peers ❑ S ❑ C ❑ w/Adults ❑ S ❑ C
Comprehension ❑ S ❑ C	Conceptual Understanding ❑ S ❑ C	Spelling/Punctuation ❑ S ❑ C	Following verbal directions ❑ S ❑ C
Other (Please specify) ? ❑ S ❑ C	Other (Please specify) ? ❑ S ❑ C	Other (Please specify) ? ❑ S ❑ C	Other (Please specify) ? ❑ S ❑ C

II. STUDENT STRENGTHS: (Check all that apply)

❑ Positive Attitude ❑ Handles Conflict ❑ Works well independently ❑ Trustworthy ❑ Takes pride in appearance ❑ Cooperates ❑ Respectful to authority	❑ Artistically inclined ❑ Transitions easily ❑ Organized ❑ High expectations for Self ❑ Hard worker ❑ Athletic ❑ Good sense of humor	❑ Works well in groups ❑ Responsible ❑ Motivated ❑ Possesses leadership skills ❑ Other (Please specify below) Other?

III. Identify areas in which the student displays significant difficulties or functions significantly below the expected level.

Learning Behaviors
- ❑ Working in a Group
- ❑ Working Independently
- ❑ Distractibility
- ❑ Impulsivity
- ❑ Energy Level Too High
- ❑ Energy Level Too Low
- ❑ Frustration Tolerance
- ❑ Organization

Social Adjustment
- ❑ Develops Appropriate Friendships
- ❑ Relates Appropriately to Teachers
- ❑ Emotional Outbursts
- ❑ Withdrawal
- ❑ Chronic Lying
- ❑ Chronic Absences
- ❑ Stealing
- ❑ Bullying
- ❑ Difficulties at home

Processing (motor/auditory/visual)
- ❑ Fine Motor Skills/Hand Eye Coordination
- ❑ Gross Motor Skills/General Clumsiness
- ❑ Reversal/Transportations (Letters, words, numbers)
- ❑ Manuscript
- ❑ Copying from board
- ❑ Visual Memory
- ❑ Right/Left Confusion
- ❑ Auditory Memory
- ❑ Other ?

Adaptive Skills
- ❑ Delayed Self-Help Skills
- ❑ Socially Immature
- ❑ Immature Language
- ❑ Other ?

IV. EDUCATIONAL HISTORY

Grades Repeated (Specify):

I'm not sure about grades repeated but at this time he has 7.00 credit hours. Grades and test scores are low and there have been some discipline incidents/reports.

- ❑ Attendance Report
- ❑ Discipline Report
- ❑ Historical Grades
- ❑ Test Scores

EXCESSIVE ABSENTEEISM:

Grade: ____10____ Number of Days Absent: __12__ Number of Tardies: ____0____
Grade: _____ Number of Days Absent: _____ Number of Tardies: _____
Grade: _____ Number of Days Absent: _____ Number of Tardies: _____
Grade: _____ Number of Days Absent: _____ Number of Tardies: _____

Extenuating reason(s) for excessive absenteeism:

N/A

Interventions used for excessive absenteeism:

Student has been assigned D. Rutland as a mentor. He will check on J. C. each week in regards to grades, behavior, and attendance.

Number of Suspensions:

He has been in ISS at least twice this school year.

(Attached Discipline Report)

Is the student involved in ESL?

- ❑ No
- ❑ Yes

Has instruction been inconsistent within a school year?

- ❑ No
- ❑ Yes (specify – i.e. series of sub teachers, etc.)

Has the student had a change in classroom assignment or a change in teacher within this school year?

- ❑ No
- ❑ Yes

Are academic deficiencies a result of the lack of instruction in reading and/or math?

- ❑ No
- ❑ Yes

V. What classroom strategies have been employed to address the student's academic concerns prior to the SST request? (Check all that apply)

Check	Strategies	How Long Tried? **Begin and End Dates**	Outcome of Strategies **(Data)**
	Instructional Accommodations		
*	Modified Demands	1/15-25/18	50
*	Materials Modified	1/15-25/18	50
	Alternative Materials		
*	Small-Group Instruction	Duration:2nd semester Frequency: Everyday	50
	Tutoring		

*	Assistive Technology	3/2018-present	1st nine weeks - 50/ current - 63
	Daily Guided Reading		
	ESL Support		
	Contract		
*	Assigned Seating	3/2018-present	1st nine weeks - 50/ current - 63
	Rearranged Physical Setting		
*	Parent Conference	2-16-18 & 4-27-18	1st nine weeks – 50/ current - 63

VI. Student Data and Evidence

Documentation must be provided for each student concern. Following are examples of the types of evidence that may be used to support the SST process. Gather supporting evidence and check each type of evidence you will be bringing to the first meeting of the Student Support Team.

- ❑ Formatives/Benchmarks/ Summative Assessments
- ❑ Student Work Samples
- ❑ Observations
- ❑ Report Card
- ❑ Attendance Records
- ❑ Discipline Forms
- ❑ Record of OSS and ISS Suspensions and/or Discipline Referral(s) Information

VII. Please attach a narrative indicating the event(s) that led to this referral. Each teacher should add to the narrative and give their name, class period of the student, and the subject taught. Here are some questions to guide your response:

1. **Where does the problem typically occur?**
2. **When is the behavior most likely to occur?**
3. **What do you think the student gains or avoids by demonstrating this behavior?**
4. **Do you believe the student *cannot* (is unable to) or *will not* (is unwilling to) demonstrate the desired behavior?**

Mrs. Jones-2nd period-Life Science

1. Majority of the time the problem occurs outside the classroom. 2. The behavior occurs at the beginning of class based on what has happen before 2nd period. The student can be happy or sad about something and loses focus. 3. The student gains distraction especially if he is upset and will quickly withdraw and shut down. 4. I believe the student can demonstrate desired behavior with receiving one-on-one assistance sometimes and continue support (motivation and encouragement) from staff, peers, and parents.

APPENDIX H: WBHS SAM AND FAM-S SURVEY RESULTS

MULTI-TIERED SYSTEM OF SUPPORT
Integrated Academic & Behavior Systems
NC Department of Public Instruction

Scoring

Record score below for each item:

Leadership (Items 1-6)		Building the Capacity/Infrastructure for Implementation (Items 7 – 17)		Communication and Collaboration (Items 18 – 21)		Data-Based Problem-Solving (Items 22 – 28)		Three-Tiered Instruction and Intervention Model (Items 29 – 35)		Data Evaluation (Items 36 – 41)	
1	2/3	7	2/2	18	2/2	22	1/2	29	2/2	36	–/2
2	2/3	8	3/3	19	1/2	23	1/2	30	1/1	37	1/2
3	–/1	9	1/1	20	1/2	24	1/2	31	1/2	38	1/2
4	0/2	10	1/2	21	1/2	25	1/2	32	1/2	39	2/3
5	2/2	11	2/2			26	1/1	33	1/2	40	1/2
6	1/2	12	1/2			27	1/2	34	1/2	41	2/3
		13	1/3			28	1/2	35	1/2		
		14	1/2								
		15	1/2								
		16	1/1								
		17	1/2								
Total:	7/13	Total:	15/22	Total:	5/8	Total:	7/13	Total:	8/13	Total:	7/14

All Items Total:	49/83

Leadership Percentage: (Leadership Total/18) x 100	46.7% / 72.2%
Building the Capacity Percentage: (Building the Capacity Total/33) x 100	45.5% / 67.7%
Communication and Collaboration Percentage: (Communication Total/12) x 100	41.6% / 66.7%
Data-Based Problem-Solving Percentage: (Data-Based Total/21) x 100	33.3% / 61.9%
Three-Tiered Instruction and Intervention Model Percentage: (Three-Tiered Total/21) x 100	38.0% / 61.9%
Data Evaluation Percentage: (Data Evaluation Total/18) x 100	46.7% / 77.7%
FAM-S Total Percentage: (All Items Total/123) x 100	41.9% / 67.5%

NC FAM-S 2.2019

APPENDIX I: WBHS STANDARD PROTOCOL INTERVENTION MATRIX

	Curriculum	Environment	Instruction	Data-Evaluation	Plans to Intensify
Grades					
Attendance					
Behavior					
Social-Emotional					
Literacy (Phonics and spelling)					
Literacy (Fluency, vocabulary, and comprehension)					
Mathematics					