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MULTI-TIERED SYSTEM OF SUPPORT IN CALIFORNIA RURAL SCHOOL SETTINGS

A Dissertation

Presented to

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by

John Schilling

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MULTI-TIERED SYSTEM OF SUPPORT IN CALIFORNIA RURAL SCHOOL SETTINGS

by

John Schilling

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ABSTRACT

MULTI-TIERED SYSTEM OF SUPPORT IN CALIFORNIA RURAL SCHOOL
SETTINGS

by John Schilling

Rural schools face a different set of challenges that most urban school do not,
such as geographical proximity to qualified staffing, educational and student resources,
budgets based upon a smaller student population, access technology and isolation. The
purpose of the research was to examine how rural schools and rural school leaders are
confronting the challenge of implementing MTSS with limited resources. The researcher
used the lens of implementation science as a methodological framework for examining
the implementation of MTSS. The researcher used a mixed method design to collect
survey data from thirty-eight rural school educators and to collect data from three rural
educators through interviews. Finding from the data collected were, a universal screening
tool is needed by classroom teachers to evaluate and measure the social and behavioral
needs of students, the context of the school or organization needs to be considered when
additional resources are required for rural schools to implement a comprehensive MTSS
system, training and professional development need to be tailored to meet the unique
needs of rural schools, tiered levels of support are needed for all aspects of the
organization to implement MTSS, rural schools need a voice in developing program and
policies at the state level to ensure the unique needs of rural schools are being considered.

ACKNOWLEDGMENTS

God has called one of his angels from earth back to heaven. Johnny is that special soul who was transported to another place and will be forever remembered as a beautiful loving brother, student and son. The chains of this earth are now removed for you. Johnny, now you can run, yell, jump and fly as you were always meant to do. The special people who were a part of your life, your family, your school, your community, will always remember your smile, your laugh and your beautiful blue eyes. You taught us more than we ever thought possible about love, strength, commitment and dedication. You changed the way we appreciate the human condition and how challenges are unique and special to us all. You overcame so many obstacles and tackled so many barriers. It was a wonder how you made this happen each and every day. Your mother, Melissa, sister Katy and I are so very proud of all you have taught us and how many lives you have influenced. You are an inspiration to our family and our community. This place and the next are better because of you. We all look forward to the time we will reunite and be together again. By seeing you work hard to overcome your challenges you has inspired others to try harder. Johnny, you have pushed Melissa and I to work hard and strive to accomplish more. You have helped us to aspire for things in our own lives that make us who we are today. Thank you son.

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Chapter One
Overview

Response to Intervention (RTI) is a research based tiered structure of academic

support designed to provide academic intervention based upon a student's individual

area of need. The practice of using RTI in schools was a recommendation based on

the passage of the 2004 Individual's with Disabilities in Education Act (IDEA). The

practice of using RTI's as a strategy had two purposes. First, it was to address any

special education student's need for structured academic support in mainstream

academic classroom settings. Second, RTI was intended to limit the number of

students being referred for special education assessment and evaluation by providing

a vehicle for teamwork and data-based decision making to strengthen student

performance. At that time, it was a common practice for school staff to recommend

students for special education assessment and services when a student demonstrated a

need for additional academic support. Students of color and students in poverty were

especially vulnerable for being over identified for special education services.

Response to Intervention (RTI and RTI2) are both proactive approaches used by staff

members to assess a student's skill level and based on the skill level, provide targeted

instruction, intervention support materials to meet the student's needs. This system of

assessment to instruction allows the teacher to observe the student's response to the

instruction or intervention. RTI & RTI2 refers to an integrated, schoolwide method of

service across general education and special education that promotes successful out

comes for all students. The design of RTI2 was to meet the specific needs of student

in Special education, Title I, Title III, English learners and those students in the gifted and talented programs (www.cde.ca.gov/ci/cr/ri/mtsscomprti2.asp).

Federal special education legislation was enacted to ensure that all students regardless of ability have access to a free public education. Yet, racial and ethnic disproportionality has continually remained a running concern of educators and educational policy makers. Students who are identified and disproportionally placed in special education are negatively affected by stigmatization, substandard instruction, lowered expectations, disproportionate discipline consequences and isolation from the general education population (National Education Association, 2007; Sullivan & Artiles, 2011).

Despite the changes to state policy and legislative efforts to provide equal access to regular education curriculum and limit the placement in special education, the evidence from national databases indicates persisting problems with overrepresentation and underservicing minority students (Dunn, 1986; Finn, 1982; Glennon, 1995; IDEA, 1997; Losen, 2002). The statistics indicate a disproportionate number of minority students identified for special education and often suggest a misdiagnosis and inappropriate labeling resulting in restricted educational opportunity (Gottlieb et al., 1994, Smith, 1999). Further, misdiagnosis and mislabeling, special education serves as a vehicle for the segregation and degradation of minority students (Losen, Welner, 2001).

As the use and practice of RTI progressed from IDEA of 2004, new legislation contained in the Every Student Succeeds Act (ESSA, 2015) recommended that a

Multi-tiered System of Support (MTSS) be used to provide tiered levels of support and intervention. The intention of the tiered levels of support was to address both, student academic support, and individual student social and behavioral support. But what is not taken into account and remains a systematic problem is the teacher cultural competence (or lack thereof) and the role that the staff members play in supporting all students meeting the academic and behavioral expectations in a classroom (Banks & Obiakor, 2015). Misidentification of special education student labeling was often time the result of staff perceptions and social segregation rather than student academic intervention support.

Response to Intervention 2 (RTI2), developed by the California Department of Education included an additional component of behavioral support combined with academic support for mainstream and special education students. Positive Behavioral Intervention Support (PBIS) is most often used as the social behavioral support structure and is intended to improve social, behavioral and academic outcomes for all students. PBIS as an integrated framework to meet the diverse needs of all students including students with disabilities and students from underrepresented groups. MTSS, combined with PBIS are frameworks used together to provide academic strategies of tiered intervention combined with a social-behavioral component to meet the needs of the whole child.

MTSS is a framework to provide academic strategies of tiered instructional intervention combined with a social-behavioral component, PBIS, to meet the needs of the whole child. PBIS is more of an integrated tool and is intended to meet the

diverse needs of all students. The MTSS framework combines evidence-based practices of RTI2 (as an academic response) with a second evidence-based behavioral strategy to address the social and behavioral needs of students. MTSS is the latest California state initiative to address the combination of common core state standards aligned with response to intervention to support the academic, social and behavioral needs of students (CDE, 2017).

In 2015, California Assemble Bill 104 appropriated 10 million dollars for developing, aligning, and improving systems of academic and behavioral supports to assist California schools with the implementation of MTSS. The California Department of Education (CDE) conducted a competitive grant application process to select two county Offices or Departments of Education to administer funds and monitor the goals of AB 104. CDE awarded the Orange County Department of Education (OCDE) as the coordinating agency for the grant awards and grant oversight. Secondly, Butte County Office of Education (BCOE) was selected as a secondary agency to assist with the school in rural areas of California. To assist with the state-wide implementation of MTSS a partnership was formed with the SWIFT center (Schoolwide Integrated Framework for Transformation) to assist local agencies in the alignment of MTSS efforts with the state identified eight priorities of local accountability. To access funding support to implement MTSS, local county agencies could apply to OCDE for grant application funds to implement the MTSS framework and programs. In 2016, an additional 20 million dollars of grant monies were added through Senate Bill 828 to augment the original grant award. The purpose of the

entire 30 million was to encourage LEAs to establish and align school-wide data driven systems of academic and behavioral supports to more effectively meet the needs of California's diverse learners in the most inclusive environment; it was also to support LEA's to align those efforts to the state accountability system. The Scaled Up Multi-systems of Support (SUMS) initiative enabled the OCDE to develop and disseminate statewide resources and technical assistance for this purpose (CDE, 2018).

The OCDE and BCOE established a network for local educational agencies to apply for funding to implement MTSS. The structure of the grant process included an initial application, projected multi-year budgets, and biannual accountability reporting. The first round of grant recipients received a grant award of $5000 to begin the systems integration of MTSS. The initial round of funding was distributed across ten regional areas containing multiple county offices of Education and local educational agencies. Cohort 1was identified as the first round of grant recipient schools, regional leads and county leads. Cohort 1 consisted of 98 Knowledge Development Sites (KDS) (OCDE SUMS, 2016) across California. The KDS sites were the local district schools comprised of a mixture of urban and rural elementary, secondary, K-12 and K-8 schools across the state. A second round of funding became available for the initial grant recipient schools and for new grant applicants. The second round of funding was an effort to maintain momentum for the MTSS initiative and create sustainable reform systems for LEAs to construct a local five-year planning and implementation framework. Included with funding support, local

agencies were obligated to participate in professional development sessions conducted by the SWIFT Center based out of the University of Kansas.

The National Center for Educational Statistics (NCES) regularly reports data on public school enrollment, funding, expenditures, student to teacher ratios just to name a few. In the 2013 report on The Status of Rural Education, the NCES reported that there were 10,124 public elementary and secondary schools in California and that 1,684 (16%) of those schools were identified as rural (NCES, 2010). In fact, approximately one-half of school districts, one-third of schools, and one-fifth of students in the United States are located in rural areas (White House Rural Council, 2011; NCES, 2016).

Most California school districts and county Offices of Education have access to similar resources. Smaller/rural schools, however, do not share the same resources as do larger urban or suburban school districts, or larger agencies. The unique needs of rural education is often obscured by their urban and suburban counterparts (Lavalley, 2018). One possible reason for this is that the majority of students are educated in urban and suburban schools and policy makers focus their attention on improvement of policy and systems where it will have the most impact. This attitude of urban/suburban-centric focus neglects a significant portion of the population in rural California and rural America. Very little is understood about the unique challenges faced by rural schools and rural educators. Confronted with a unique set of challenges, then how do rural schools navigate the everyday challenges and

educational systems? How do they implement a schoolwide framework like MTSS

with a $5,000-dollar grant?

Part of the challenge for smaller and more rural schools is that MTSS is a

systematic approach that requires multiple sources of information (data analysis,

universal screening, and progress monitoring), student behavioral approaches (PBIS),

and systematic support (RTI2) in order to provide individual intervention for students.

The framework is intended to meet the academic and social behavioral needs of

students. A related theme that places additional pressure on smaller/rural schools that

has emerged from the literature is that fidelity to the process is essential to the success

of MTSS. In this view, the components of MTSS are challenging to implement, and

combined with the issues faced by small/rural school districts, it is imperative that

resources are managed with purpose, effectiveness, and intention.

Statement of the Problem

The implementation of evidence-based programs is not an easy task and many

schools and districts are challenged by the obstacles of institutional systematic

change. MTSS is one example of this kind of program and further examination is

needed to address the obstacles, purpose, best practices to benefit all students of

school wide MTSS. Literature is beginning to emerge that identifies implementation

barriers faced by schools and districts. Nilson (2015), identified potential barriers for

the implementation of evidence-based programs such as a lack of organizational

support and a rush to implement without dedicating ample time to build capacity and

pre-plan activities. Samuels (2016) identified the numerous "moving parts" of MTSS

such as universal screening, progress monitoring, shared leadership, problem solving teams, and making data driven decisions as being critical barriers. These issues are magnified when attempts are made to implement these concepts in a small/rural school or district. The obstacle for implementation is primarily due to the challenges of geographical proximity, poverty, technology, academic hurdles and the lack of available resources.

Both RTI and PBIS are multi-tiered approaches that influenced the concept of MTSS as a framework aimed at providing a wrap-around support system for students. MTSS is an evidence-based practice designed to provide prevention via instruction by implementing a needs-based continuum of supports in increasing intensity based upon individual student needs. MTSS systems revolve around utilizing regular screenings for intervention and using data-based decision making to account for student response to the intervention. MTSS as an improvement cycle requires the facilitation of team-based decision making for initiating a school-based improvement system (Sugai & Horner, 2009). Most California schools have some elements of RTI as a systematic preventative framework due to the recommendations in IDEA of 2004. More recently the ESSA (2015) recommends MTSS as an intervention for addressing the academic and social/behavioral and academic needs of all students.

MTSS has become an effective way for schools to provide increased student outcomes and efficient use of limited resources to meet each student's unique needs. MTSS has also been demonstrated to be an effective way to improve school culture

and climate. Effective implementation of MTSS is associated with increased student achievement (Florida Department of Education, 2014).

Through the lens of implementation science, the problem to be investigated by this study concerns the leadership practices that are used to implement MTSS in small rural schools in California. Secondly, it is to identify the leadership challenges that are faced by small/rural schools that are charged with implementing the complex and detailed MTSS strategies and to better understand how the schools respond to these challenges. Lastly, the problem for investigation was to assess the specific and unique aspects of MTSS, as the primary mechanism that small/rural schools use to respond to the social and behavioral needs of students. This aspect of the study will examine how small rural schools are facing this challenge when faced with limited resources and personnel. Historically, the school's mission was to manage the academic and learning needs of students and now schools are being tasked with addressing the needs of the whole child.

Purpose of the Study

Establishing effective practices for MTSS is not an easy endeavor and most of the research conducted around MTSS has been concentrated on urban and suburban school districts (Robinson, Bursuck & Sinclair, 2013). These studies do not address the challenges that rural schools face when implementing a tiered system of support for students (Robinson et al., 2013). Small rural schools are typically not the focus of implementation studies, policy development or program evaluation research. Similarly, research is lacking on how small rural districts implement evidence-based

multi-tiered programs such as MTSS. This lack of information is especially apparent for small/rural schools with limited resources, staffing challenges and geographical proximity to services. There also appears to be a disconnect between what the research says are challenges in implementing MTSS and the professional development being provided to MTSS schools. Lastly, given current state of affairs in schools, California educators are faced with limited resources, funding challenges and the absence of non-academic mainstream classroom assessment measures. This research was interested in understanding what small/rural schools are actually doing to measure the social and behavioral needs of students and when schools do assess those students' needs, what actions do they take in response to the assessed needs. In summary, the purpose of this study is to understand the connection between MTSS leadership team practices and team's ability to implement programs at the rural school level. Additionally, a purpose is to identify strategies and assistance needed for rural school sites and district leadership teams to implement the MTSS program with fidelity and overcome the barriers to do so in the process. The following research questions summarize these purposes:

Research Questions

1. How are small/rural school staff members assessing the social and behavioral intervention needs of all students? *(Implementation Driver: Competency)*

2. What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? *(Implementation driver: Organization)*

3. What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? *(Implementation driver: Leadership)*

4. Are there any differences associated with the implementation of MTSS with schools or district demographics?

This research builds on the view that understanding the process of system change is needed in schools in order to build and sustain an evidence-based practice in schools. MTSS is a "system" change framework, and changes to school and district practices are best implemented when they are done with fidelity to the core implementation science drivers of competency, organization and leadership (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). The core drivers will act as indicators to measure how small rural schools and district are implementing the MTSS evidence-based practice and creating systems of support for students. This particular variation of the implementation science model was used because of the large-scale systems change in the field of education (Nilsen, 2015). Further explanation of the implementation stages and implementation drivers will follow in chapter two.

Definition of Terms

For the purpose of this study a clarification of terms is needed to provide an understanding of the intended meanings of terms and to provide the reader with a frame of reference for what is being discussed.

As the new gold standard for evidence-based interventions, MTSS is typically applied in three tiers of intervention support. The first tier is for all students who receive a base level of academics or universal instruction called tier one. Tier one is

instruction for all students regardless of program designation or program grouping. Tier one is for 100% of the students in a classroom. Secondly, a small group of students, between 15-25% receive tier two support. These students require some level of intervention and support to maintain or progress to the median level of academic performance as compared to grade level peers. Meaning that tier two students receive the tier one instruction plus additional support to meet the median level of performance or skill level. Students that require additional support outside the tier two level receive the most intensive individualized intervention support and those students are identified in tier 3 (McIntosh & Goodman, 2016). Tier three students typically make up about 5% of the student population and require the most intensive support to meet the median level of performance or skill level. Tier three students require the most intervention and the most support.

-Implementation Science studies critical factors and conditions that ensure research-based practices are successfully integrated into an educational or public health setting

-Implementation Science Drivers: Policies or strategies used to direct or move improvement efforts (Fullan, 2011). There are three drivers identified in implementation Science, competency, organizational, and leadership. Within each driver there is an identified integration driver that is associated with the successful implementation of any evidence-based practice or program (Fixsen et al., 2005).

-Evidenced-based practice (EBP): An evidenced based practice refers to a program or practice or intervention that has been proven through research-based and

science-based studies to have positive effects on measured outcomes (Ebbole, 2007).

EBP's within MTSS include progress monitoring, universal screening, data driven

decision making.

-Fidelity There are three basic types of "fidelity" for districts and schools to

support and/or integrate into instruction and intervention:

1. Fidelity of implementing the critical components of a multi-tiered system of

student supports (MTSS);

2. Fidelity of using the problem-solving process across all three tiers;

3. Fidelity of implementing evidence-based instruction and interventions matched to

specific need(s).

-Rural School: Ultimately, the technical definition of a rural school corresponds to

our general understanding of rural areas; they are characterized by geographic

isolation and small population size. All schools are categorized into four locales by

their size, population density and location. The National Center for Educational

Statistics (NCES) defines these locales by the school's proximity to a city an "urban-

centric" classification system. The four locale categories used by the NCES urban

centric classification system are city, suburb, town and rural. Rural schools are then

broken down into three subcategories based on the National Census Bureau's

definitions of urbanicity. Rural schools are also all classified as high needs schools.

Summary

To anticipate discussion from upcoming chapters, the preliminary analysis of the

literature and the ability to answer the research questions are difficult due to the

limited sample size within the scope of the study. The researcher anticipated that survey data and semi-structured interviews would provide information that is currently unavailable and needed to answer the research questions. There is an underlying assumption that rural schools implementing MTSS programs are using similar strategies and facing similar barriers at school sites. Small rural schools who are implementing MTSS are faced with challenges different from their urban and suburban counterparts. This research was specifically designed to study how small rural schools are facing this challenge. In particular what are the practices used by the leaders and leadership teams being used to navigate the implementation process.

The literature reflected a commonality in that most interventions are designed as academic in nature and that leadership teams have access to formative and summative data to support student's academic needs. What is lacking are the tools to collect the data, a process for interpreting the data and capacity of school teams to respond to student's social behavioral needs. There is no formal process for school teams to adopt or implement evidence-based programs or to integrate those systems into practice. Generally, teachers and administrators do not have the training or expertise to provide or measure social emotional intervention. Most often it is only specialized district personnel such as school psychologists that have formalized training to provide social and behavioral assessments and recommendations. Unfortunately, this specialty is more typically provided only for identified special education students. As a result, this study is needed to gain better of understanding of what small/rural school can do, given the constraints and contexts in which they find themselves.

Chapter Two
Review of the Literature

The content review of the literature indicated that there are gaps between the practices of implementing MTSS and how leaders are navigating the reform efforts in using evidence-based practices. What emerged from the review was the lack of data on how rural educators are using MTSS and how they are navigating the challenges posed by implementing a complex process of using a student based tiered levels of intervention response. PBIS seems to be a popular and commonly used social and behavioral framework to address a systems level attendance and discipline model, based upon the numerous articles and journal entries citing PBIS. What is unclear is how schools are measuring the social and behavioral needs of students and using the data to meet students' needs. Lastly, the literature review considered how rural leaders address the challenges posed by implementing MTSS with limited resources, staffing, and budgets. The research and authors in this review all support the conclusion that RTI, MTSS and PBIS are effective evidence-based programs providing support and intervention to meet the needs of students. The researchers cited in this review, however, suggest that there is a gap in moving theory into practice in the practical implementation of these programs. The practical application of these theoretical frameworks need to be studied especially with regard to small rural schools and districts that are often faced with multiple challenges such as geographical isolation, quality staffing and limited resources, funding challenges, and leadership needs.

Rural Schools in California

Rural schools face many of the same challenges as urban schools such as an increasingly diverse student population, increase state and federal accountability standards, decreased funding sources, transportation costs, qualified staffing and increased expenditures. Aside from the similarities, rural schools face a variety of unique challenges that their urban and suburban counterparts do not, specifically, geographic isolation, the lack of resources, qualified staffing, generational poverty and academic hurdles. Approximately one-half of school districts, one third of schools, and one fifth of students in the United States are located in rural areas (White House Rural Council 2011; NCES, 2016). In California 7.6 % of students in elementary and secondary schools are educated in rural schools and 16% of school districts are in rural areas (NCES, 2013-2014). A total of 1,684 of California school districts are classified as rural school districts in California out of a total of 10,124 (16%) districts (NCES, 2013-2014).

The National Center for educational statistics redefined school locale definitions in 2006 after working with the Census Bureau to construct a new school classification system. The importance of this revision was that definitions of school types were not based upon the proximity to metro areas but classified into four major locale categories-city, suburban, town, and rural. Each of these classifications were subdivided into three subcategories (NCES, SOURCE: Office of Management and Budget (2000). Standards for Defining Metropolitan and Micropolitan Statistical Areas; Notice. Federal Register (65) No. 249.)

NCES has classified all schools into one of these twelve categories based on schools' actual addresses and their corresponding coordinates of latitude and longitude. Not only does this mean that the location of any school can be identified

precisely, but also that distance measures can be used to identify town and rural subtypes. Unlike the previous classification system that differentiated towns on the basis of population size, the urban-centric system differentiates towns and rural areas on the basis of their proximity to larger urban centers. This key feature allows NCES to identify and differentiate rural schools and school districts in relatively remote areas from those that may be located just outside an urban center (NCES, 2006).

Rural school districts are defined by three categories. The first category, Fringe, is Census defined by the proximity of being equal or less than 5 miles from an urban area and equal to or less than 2.5 miles from an urban cluster. Second, Distant, is Census defined by the proximity of more than 5 miles but less than 25 miles from an urban area. Lastly, Remote, is census defined as more than 25 miles from an urbanized area. Over half (53%) of United States schools are located in rural areas (NCES, 2014). For this study the primary focus is with schools that are designated as rural and ones that are located in central and northern California.

Unique Challenges Faced by Rural Schools

This section will focus on the challenges faced by rural schools and rural educators, it must be noted that an equal portion of the literature discussed the benefits of the rural school setting. The most common topic discussed in the literature about rural schools was the relational connections between the school to community and school staff to the local stakeholders and community connectedness. In many cases, the rural school has been an integral part of the social fabric of the community and rural schools enjoy governance by local leaders, students who return to work in

rural schools and leadership that represents local community values and beliefs. Rural educators often embrace the natural and community resources as a part of rural life and incorporate those experiences into project based or service-learning opportunities.

Personnel. Of the issues that are viewed as challenges to rural schools, personnel is identified as the most critical element, to include teachers, support staff, and administration. Access to a qualified pool of teacher candidates and the frequent turnover of staffing was noted to be a significant challenge to maintain consistency and quality of rural education. Collectively, a teacher's selectivity of college attended, performance on standardized tests, level of degree and experience, and credentialing status can lend insight to teacher quality (Lavalley, 2018). Across the United states, rural teachers graduate from less selective colleges than those in all other locals (Player, 2015). Additionally, teachers from rural areas are less likely to have a master's degree than teachers from a metropolitan area (Player, 2015). Rural districts have an increased likelihood of employing new teachers, especially in districts with larger populations of minority students and students in poverty (Lavalley, 2018). Limited housing options combined with the geographic isolation to towns was a particular concern which impacted all job categories. For new young teachers, geographic proximity impacted their choice of jobs and retention in rural areas. Rural schools are more likely to report having difficulty filling vacancies, particularly in Science Technology Engineering and Math (STEM) positions and have a harder time recruiting faculty for their growing English language learner population than non-rural schools (NCES, 2012; Player 2015). Rural teachers cited that small school size

had an impact on school staff resulting in the assumption of multiple job roles and teaching in several content areas (Rich & Stein, 2018).

Support staff, typically classified personnel, faced the same challenges. Often times the family members of the students filled the need in classified job categories. It was noted that classified jobs typically compensate at the lowest end of the salary schedule. This same challenge of geographic proximity was related to the ability to attract and retain quality leaders in rural schools as well. For school administration, often times rural superintendent and principals seemed to be relegated to the bottom rung of the administrative farm system (Jacobson, 1988). Rural districts often endure rapid and frequent turnover among superintendents in their service (Brant & Grady, 1989; Chance & Capps, 1992; Grady & Bryant, 1991; Wilson & Heim, 1985). School leaders in rural areas struggle with poor access to high-quality professional development (Lavalley, 2018). Little training is available to rural principals relevant to their specific environment, especially in critical areas of such as community partnerships, finances, and ELL education (Preston, Jakubiec, Kooymans, 2013). Rural principals face job demands much different from their urban and suburban collogues. The tasks of the rural principal or superintendent may include multiple job roles, classroom instruction, management of facilities and athletics, and tasks typically assigned to assistant principals or support staff. Rural leaders face challenges of low salary, isolation, limited resources and community resistance to change. The simple reality for rural school districts at the start of the 21st century is that it is difficult to attract, reward, and retain school leaders (Lamkin, 2006)

Geography. The distance to urban geographic areas and geographic spread was noted to contribute to barriers for rural education. Geographic spread leads to low population density and thus, has an economic impact of a lower tax base that impact school funding. Overall community size and the fluctuations of enrollment impact the funding and stability of the school funding formula. Secondly, geographic spread contributed to the lack of parent participation in due related functions due to distance challenges from home to school.

Rural Poverty. The lack of economic diversity within the community and the fluctuation of economic factors can adversely impact the local community. In a report on the condition of rural education in the 50 states, it was reported that rural school poverty increased from 2000-2009 from 25%-30% as measured by the eligibility for federally subsidized meals. The Center for Public education reported that student poverty in rural America exists and have higher rates, is felt at deeper levels, and is more persistent than in metropolitan area. Not only is child poverty experienced at higher levels in rural areas, it is also experienced as deep poverty. Deep poverty is generational poverty falling below the half of the base of the poverty line and when families are experiencing severe financial difficulty (Lavalley, 2018). These challenges equate to restricted social and educational and economic mobility and long-term development. Additional challenges to the rural student and family include the lack of home to school transportation, the lack of central office staff, proximity to external supports such as university and technical assistance areas and social services. Families reported the distance from their homes to school as a barrier to participation

in school activities and school engagement. More children in rural communities come from conditions of poverty than in the past. Today more than half of the rural student population comes from a low-income family in 23 states-up from 16 states just two years ago (Showalter, Klein, Johnson, Hartman, 2017).

An ever-growing trend is the increasing number of Latino students in rural communities. Between 2000-2009, rural schools saw a 150% increase in enrollment of Latino students. Today approximately one in five rural residents identifies as Latino (Johnson, Mitchel, Rotherham, 2014). Latino students often require English as a second language and Latino students make up a large portion of rural America's English Language Learner population. In the coming years, this population is expected to grow, further shaping the make-up and needs of rural American schools (Lavalley, 2018). As rural schools become more diverse it becomes more important to examine how this trend impacts the needs of rural students and rural staff members.

Academics and Technology. Academic performance in rural schools has increased in recent years in comparison to their urban and suburban peers. Yes, achievement gaps based upon race are present in rural schools as they are in other communities (Showalter et al., 2017). The academic challenges for rural student include access to advanced courses that shapes the academic pathway for student matriculation to post-secondary education. Rural student scores on the National Assessment of Educational Progress (NAEP) in 2015, listed rural student scores in 4th grade reading at -8 points below grade level peers for white students and -2 points below grade level peers for black students. Rural Hispanic students scored +2 points

above grade level compared to Hispanic urban school peers. These trends are similar for the NAEP 8th grade math assessments where rural school white students scored -9 points below their urban peers and urban black students scored -4 points below their urban peers. Similar to the reading test, 8th grade rural school Hispanic students scored +3 points above their urban school peers. Part of the problem in academics may not be a matter of choice but of access. The average rural school offers half the number of advanced math courses as compared to urban areas, and nearly half of rural students attend a school that offers only one to three advanced math courses (Graham, Teague, 2011). The issue is not limited to mathematics, Advanced Placement (AP) courses is an access issues as well. AP courses in secondary school are pathway options for students to excel in advanced rigorous coursework and possibly leading to college credit. In rural areas, 73% of schools offer at least one AP course, compared to 95% and 92% in suburban and urban districts respectively (Lavalley, 2018).

Another popular trend and a possible option for student access to rigorous curriculum is the virtual classroom. Many student across the nation in K-12 and post-secondary settings are taking advantage of on-line schooling. However virtual school relies upon critical technology and connectivity that is in short supply in rural areas. 68% of the 23.4 million Americans across the country who lack access to reliable broadband connection live in rural areas (Microsoft, 2017). Even basic levels of broadband service have not reached rural areas, and in the most remote rural areas

there may be not connectivity at all (Lavalley, 2108). Until connectivity issues are addressed in rural areas the idea of on-line or virtual school will not be an option.

The academic barriers faced by rural students, lower math scores, less access to advanced math courses, decreased ability to take AP courses act as a barrier for students to attend post-secondary education. Combined with the factors of technology, poverty and geographic distances limit rural school academics achievement and educational attainment in comparison to their urban and suburban peers.

Despite the unique challenges faced by rural schools, the geographic proximity to available resources and the lack of qualified personnel, rural schools find a way to educate their students. Interestingly, rural Hispanic students outperform their Hispanic peers in urban and suburban schools (Lavalley, 2018). The literature highlights the need for staff to operate in multiple job roles and to take on multiple tasks within a rural school to provide a quality education for their students. So how then does a rural school reallocate limited resources to provide a quality experience for students? How do rural schools implement an evidence-based tiered system of support for students? Which remains a challenge for larger urban schools that have additional resources. How do rural schools manage the resources and prioritize limited funding to establish a program like MTSS? This leads us to research question number two, what are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges?

Leadership. One of the unique challenges to the leadership structure that only occurs in rural schools is that the district superintendent/principal is the only administrator. The rural school principal is the only chief executive in the community representing the school and is often times, the only target of public criticism (Lamkin, 2006). Often the rural school leader lacks training in specific skills such as school law, finance, personnel, government mandates, and district or board policies. Karen Starr and Simone White noted that the most common leadership challenges to the rural principals were, workload proliferation, educational equity issues, the re-defined principalship, escalating role multiplicity and school survival. In the rural school, the administrator is responsible for the management of the school facility, acting as the instructional leader, responsible for all aspect of school administration and required to represent the face of the school. The rural school leader is responsible to attend all school board meetings, special education meetings, staff meetings and manage all district and school communications. Human resources, budget, discipline, athletics, operations and facilities all fall to the task of one person, the rural school administrator. Respected authors in leadership research such as Heifetz contend that leadership requires authority in adaptive situations. Aspects of leadership require the school leaders to provide direction, protection, define role orientation, control conflict and maintaining organizational norms (Heifetz, 1994). Gardner contends that the communication of leadership takes place through the minds of others (Gardner, 1996/2011). Meaning the leader approaches the task of communication assuming they can affect the thoughts feelings and behaviors of individuals through communication.

This leads us the research question number three, what leadership practices are used by site level administrators to implement MTSS in small/rural school districts?

Rural School Reform Challenges and Social Complications

School reform efforts like MTSS are challenging and common or popular reform efforts often do not fit or cannot work in rural school settings. For instance, the 2001 NCLB reform approved the use of funds for four reform strategies to improve chronically under-performing schools: Turnaround, restart, closure and transformation. These approaches called for large scale staff transfers, reconstitution of schools, mass firings and transporting students to better schools. NCLB was over turned but policy makers continue this line of thinking with variations of the turnaround policies, including school choice and the hiring and firing of staff (Center for American Progress, 2016). Since 2001, Every Child Succeeds Act (ECSA) has replaced NCLB and ECSA is not as prescriptive yet still maintains a turnaround model for underperforming schools, including school choice. These federal policies reflect a narrow perspective on the issues facing different schools across our nation and pose policies that are nearly impossible for rural communities to implement (Johnson & Howley, 2015). Urban schools, to which much of the research on current reform efforts has been directed, are not rural schools. Rural school reform and rural schools has its own unique set challenges and community identifiers that make rural school dramatically different from their metropolitan counterparts (Bauch, 2001). Differences in rural school size, location, economy and staffing are all factors pertinent to rural school reform. In a review of the rural schools implementing

federally funded School Improvements Grants (SIGs), an IES (2014) study found that many schools only implemented portion of the required reforms due to the lack of resources (Rich & Stein, 2018). Popular perception, education reform is largely directed toward the needs of underserved populations. Yet the specific needs of rural communities are often overlooked in policy decisions (CPE, 2018). These approaches leave the needs of rural students and rural schools unaddressed and leads to funding and reform efforts that remain metro-centric and neglect the needs of rural education.

Although outside the scope of this research project the health, mental health and addiction remain a consistent social problems in rural communities. Rural communities face issues of high diabetes rates, mental health issues, high tobacco use rates, high teen pregnancy rates, lacking emergency and social services. Rural communities have higher rates of obesity, mortality, and heart disease (Hartley, 2004). Among rural adolescents have 35% greater odds and small urban adolescence have 21% greater odds of past year prescription opioid misuse compared to large urban adolescents. Rural adolescents are perceived as having a lower substance risk and are partially buffered by less peer substance abuse, stronger religious beliefs and less access to illicit drugs (Monnat, Rigg, 2015). There remains a need for early education, family treatment and non-emergency medical service providers to address these significant social issues.

One of the most promising practices to improve student outcomes for all schools is the implementation of multi-tiered systems of support (MTSS). However, implementing MTSS in rural school settings in not a seamless endeavor. (Rich &

Stein, 2018). The unique challenges facing rural schools pose barriers for implementing MTSS because the MTSS model requires extensive professional development, with teachers collaborating in teams in the problem-solving process, using evidence-based tools for screening and progress monitoring, and implementation methods for ensuring fidelity on interventions (Robinson et al., 2013). The complexity of MTSS requires administration and leadership teams to find unique and creative was to allocated resources and implement new programs and address the social and behavioral needs of students.

Purposes of MTSS

The Kansas MTSS framework is a coherent continuum of evidence based, system-wide practices to support a rapid response to academic, behavioral, and social skill needs. Frequent data-based monitoring informs instructional decision making to empower each Kansas student to achieve high standards. The focus of the Kansas MTSS framework is system-level change across the classroom, school, district and state.

The statement above from the Kansas Department of Education highlights the purpose of the MTSS framework. MTSS uses the principals of Response to Intervention (RTI), Positive Behavior Intervention Support (PBIS) and Evidenced Based Practices (EBP) to address student academics and behavior. The importunacy of these three concepts, RTI, PBIS, and EBP's, are to create an inclusive tiered system of academic and behavioral supports for all students. A useful way to conceptualize instruction is to differentiate instruction based upon student need.

MTSS is Multi-tiered meaning tiers (3) are the intensity of the instruction. The first tier is the base level of instruction and inclusion for all students in the classroom. The second tier is an elevation to the intensity of instruction which may include additional academic or behavioral support based upon the assessments the instructor receives from the student. An example might be for the student to receive more time on an assignment or additional curriculum enhancement. Typically, 15% to 20% of students need additional tier two intervention. Tier three is the most intensive adaptation to instruction and only 5% of the students might require tier three. Tier three intervention might include afterschool tutoring, or one-on-one instruction. Student progress monitoring is used to measure the effectiveness of the intervention, so the student can successfully learn tier one instruction.

MTSS and Student Outcomes. Educators are beginning to make the connection that behavior and academics are related (Lane, Kalberg, Menzies, Bruhn, Eisner et al., 2011). This is the basis of MTSS, that students need instruction in both academics combined with social behavioral learning to prevent the challenges of academics or being referred to special education for intervention. In a meta-analysis of over 20 years of education research, Hattie (2012) employed a statistical model to determine effect size of programs and practices associated with student academic improvement. His study is the largest evidence-based research project in education. In his review and research Hattie identified the system of RTI as having the third most significant effect size out of 150 educational practices. Other studies found similar improvements in student learning that found the benefits of RTI included improved performance on

state-wide tests, improved reading proficiency, time on task and improved retention rates.

Social Behavioral Supports. In a study of the effects of academics and behavioral interventions in a MTSS model on student outcomes, students made a significant gains in reading, statewide assessments and decreased office discipline referrals (Algozzine, Wang, White, Cook, Marr, et al., 2012). In the study students were identified as needing tier two and three interventions for academics or serious behavior problems. Students were exposed to a reading intervention model as well as School-wide positive behavior Support (SWPBS). After three years students demonstrated gains in literacy skills and end of grade achievement. Students showed a decrease in behavior problems and noted a positive school climate. Schools that are implementing SWPBIS with fidelity, accurately and frequently, clearly define, teach, and reinforce school-wide expectations. The organizations using SWPBS concentrate on making data-based decisions to monitor intervention implementation and student response. Lastly, the organizations differentiate levels of support in response to student need and establish systems to sustain implementation (Sugai el al., 2010). These studies did not take into account how rural schools are providing behavioral supports nor did they review the systems used in rural schools to measure student social and behavioral needs. Social and behavioral support systems are not limited to PBIS. Other support listed in the literature include Restorative Justice practices and Social emotional learning strategies. This leads us to the first research question, how

are small/rural school staff members assessing the social and behavioral intervention needs of all students?

History of MTSS

The multi-tiered intervention approach evolved from the reform efforts to improve identification practices for students in special education. MTSS is the result of adapting and combining aspects of RTI and PBIS. One could advocate that RTI or the approach of using tiered level of response, started with the 2004 reauthorization of IDEA. RTI was intended to assist public schools with the misidentification of student with disabilities. In other words, RTI was an attempt to provide intervention for students in the main stream classroom rather than referring them for special education services (National Association of State Directors of Special Education, 2006). Some clarity is needed to distinguish the difference between RTI and MTSS and in 2014, the Colorado Department of Education explained that RTI is a process for supporting the needs of struggling learners in mainstream classrooms through individual intervention practices or identifying students who have learning disabilities and require the support of special education services. MTSS is a framework that takes a universal approach to screen all students for academic challenges, social emotional behavioral problems, at risk, and provided resources to meet the needs of all students. RTI and MTSS are largely synonymous as they both utilize a tiered approach to intervention based upon student data to meet the identified needs of students.

PBIS on the other hand is a separate and distinct framework designed to support student behavior under the umbrella of MTSS also stemming from the IDEA

reauthorization of 2004. PBIS is recommended by the U.S. Department of Education

(2004, 2015) as a framework to provide a continuum of supports, universal screening,

progress monitoring, and data decision making (Sugai, Horner, 2009). PBIS is a

framework used to define, instruct and reinforce positive behavior on school

campuses and sustain a positive school climate (U.S. Department of Education,

2015). Another important aspect of PBIS is that it used the principles of

implementation science framework to bring research into practice. Implementation

science is the framework that will be used as the lens to examine implementation of

MTSS in this study.

Implementation Science as a Framework for Understanding MTSS

For the purposes of this project and the dissertation study, the researcher used the

framework of implementation science to answer the research questions about MTSS.

Implementation science provided a structure to organize a plan to examine how

schools account for the integration of MTSS and how the system can be used in

small/rural schools. The implementation science model is a framework to integrate

evidence-based programs into practice with fidelity and sustainability (Nilsen, 2015).

This is a particularly important approach of taking a theoretical model and putting it

into practice. One of the biggest challenges for educators is implementing a new

practice or a new program. This challenge is often times due to the lack of strategies

that promote effective and efficient program implementation (Metz, Blasé, & Bowie,

2007). Implementation science provides a context for thinking about systematic

implementation of MTSS connecting the research to service gap (Fixsen, Blasé,

2008). One major obstacle to implementing and sustaining MTSS is the disconnect

between how research frames evidence-based programs and what the research says

about principles of systems change (Fixsen, Naoom, Blasé, Friedman, & Wallace,

2005). Implementation science was used as the framework used to develop the survey

and interview protocol and to answer the research questions in this dissertation study.

The authorized illustration used below provides a visual representation of the

implementation science framework.
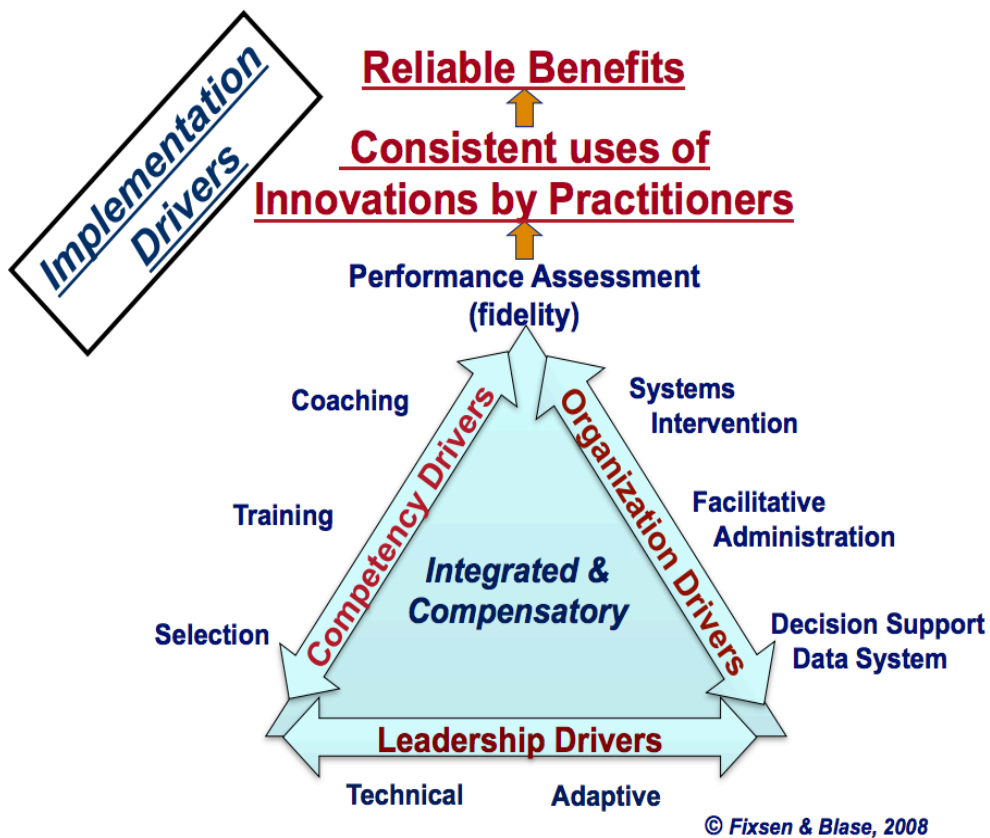
Figure 1. Implementation drivers. This figure illustrates a framework for
implementing MTSS within the implementation science model. Adapted from
Implementation Science and fall Prevention, by D. Fixsen, K. Blasé, A.Metz, & M.
Van Dyke, 2014. The National Implementation Research Network. (Appendix: C)

Implementation Science-Conceptual Framework

For the purposes of this study the framework of implementation science will is used as the lens to answer the research questions about MTSS and how the system can be used in small/rural schools. In the past few decades, considerable attention has been focused upon the developing evidenced-based programs to improve educational outcomes for students (Hattie, 2012). Implementation science is a new approach to introduce evidence-based educational program implementation for MTSS. Although the approach is widely used in other fields such as health care, psychology, business, and social services it is now becoming more commonly accepted as a practice for bridging the "science to service" gaps for programs in education. The implementation science model is a framework to integrate evidence-based programs into practice with fidelity and sustainability (Nilsen, 2015). This is a particularly important approach of taking a theoretical model and putting it into practice. When evidence-based programs are implemented in education often attention is directed specifically towards the intervention and very little to the planning and process of implementation of the intervention. The institute of Educational Sciences (IES, 2010), the leading source for educational research, indicated the IES spent 96% of its funding on creating new interventions and 4% on supports for the effective implementation of the interventions (as cited in Fixsen et al., 2013). The idea that more time and efforts are spent on the intervention and less effort is dedicated to implementation planning and process is known by the term "science-to-service gap" (Fixsen et al., 2013). Implementation science framework grew out of the "science to service gap". The

science to service gap is appropriate for education because the evidence-based program (science) is not being put into practice effectively (service) to improve the educational outcomes of students (Blasé, Schroeder, & Van Dyke, 2014).

Program implementation has been described in terms of stages. Understanding the stages of implementation is important as it is thought that different implementation stages require different actions from change agents and implementers in order to support successful implementation (Forman et al., 2013). Fixsen and others have identified four stages in the implementation process; exploration, installation, initial implementation and final implementation (Fixsen, 2005). Across our nation, many states have used the implementation science as an approach to facilitate the implementation MTSS (Horner et al., 2014; Dillard, 2017; WestEd, 2015).

Implementation Stages. Exploration is the initial stage in the process. Besides Fixsen, others have conceptualized this stage as the initial or dissemination stage where information is gathered and dispersed by change agents and acquired by implementers and stakeholders. The exploration stage activities include communication about the needs of the organization, the change agents that are proposed to address the needs of the organization and the intended outcomes of the change agent. The results of this stage is a common understanding and the acceptance of the intervention and the required implementation supports, and the collective decision to proceed (Fixsen et al., 2013). A critical component of the exploration stage is the collective buy-in within the organization from the stakeholders.

Second is the Installation stage which involves the acquisition of resources needed to fully and effectively engage in new ways of work. Essentially the installation stage is the adoption of the innovation. The critical steps in the installation stage are the resources and activities focused on new job roles, selecting the staff to do the new work, developing data collection methods and the access to timely training. Organization often think evidence-based programs as "plug and play" and are surprised by the need for preparation and resources (Fixsen et al., 2005). Evidence-based programs often die at this stage and without the people in place capacity development cannot occur. Capacity to scale up evidence -based programs resides in the people who have the knowledge, skills and abilities to do this new kind of work (Fixsen et al., 2013).

The initial implementation stage reflects the early steps taken to introduce a new effort and often involves a learning curve as organizations adjust and integrate new efforts into daily work (Freeman, Miller & Newcomer, 2015). This stage is where staff are attempting to implement newly learned skills and incorporate the skill into new ways of work. This is the most fragile stage where the awkwardness associated with trying new things and the difficulties with changing old ways of work are strong motivations for giving up and going back to education as usual (Fixsen et al., 2013). Two critical components are essential during the initial implementation stage, external supports and highly involved leadership. Transformation is occurring at this stage and the external supports are needed for staff members to build internal capacity to use evidence-based practice in the schools and in classrooms. Organizational

leadership is needed to carry out leadership functions and ensure fidelity to systems change.

Lastly, is the full implementation stage. Full implementation is achieved when over 50% of the staff are engaged in the evidence-based practice and do so with a high degree of performance fidelity. External support providers can begin to fade out. The critical indicate that the evidence-based program is in place is that the staff members are skillful with the new program and it has become routine in the daily practice. Sustainability of the program and high-quality instruction is essential as teachers and administrators come and go, the program needs to remain in place.

Implementation Drivers. Fixsen et al., (2005) has identified three primary drivers through a meta-analysis of over 500 successfully implemented evidence-based programs. These implementation drivers used consistently and collectively were deemed to contribute to the sustainability of the program. The drivers of competency, organization and leadership are the main components identified to take theory into practice, science to service, and build the capacity to create systems change. All three of the drivers are particularly important for systems change and supporting school staff with the implementation of MTSS.

California is in the early stages of implementing MTSS and the state of California has dedicated resources to integrate MTSS into schools and district through a hierarchical system where by county offices are working with school sites to integrate and monitor implementation. It will be helpful to understand if implementation science and the use of implementation drivers have an influence on the

implementation of MTSS. Secondly, it would be useful to understand how small/rural schools are navigating the challenges of implementing evidenced-based programs such as MTSS.

Competency Drivers. The Competency drivers are the activities, resources and actions needed for an organization to effectively improve the knowledge and skills of teachers and administrators to implement an evidence-based practice like MTSS for education. There are four competency drivers identified by Fixsen, Balse, Naoom and Van Dyke, 2010, that include, selection, training, coaching and performance assessment.

Selection consists of selecting or hiring the right individuals for the MTSS roles. Roles could include, coordinator, coach, academic specialist, behavior specialist and selection of the individuals is based on the organizational size and structure. Staff selection involves assessments at different levels and the commitment to MTSS. Selection and commitment especially important to build capacity for the long-term commitment and resources for systems change.

Training opportunities are intended to build the knowledge and skills of the staff to align MTSS. Successful implementation of MTSS requires behavior change of staff members (Freeman, Miller & Newcomer, 2015). Each role within the organization needs specified training and support but all members of the organization need a collective commitment to ongoing professional development. MTSS professional development needs to be systematically designed to focus on building

the infrastructure of evidenced-based programs with fidelity and site level coaching, training and evaluation (Nantais, St, Martain, & Barnes, 2014).

Coaching is providing the modeling, sharing information through workshops and training events to improve the conceptual knowledge and understanding of MTSS. Teachers and team members need coaching systems to take the next step in employing new skills and participating in dialogue and reflection with a person of expertise in the field. The coaching driver is used in all four stages of implementation including the full implementation stage.

Performance assessment is used to evaluate the fidelity of implementation practices that occur in MTSS. The fidelity assessments evaluate the degree to which schools and districts are able to implement evidenced-based programs such as MTSS (Freeman, Miller & Newcomer, 2015). Program trainers for MTSS use tools to measure, team self-assessments, walk-through observation tools, and performance evaluation. The Schoolwide Evaluation Tool (Horner et al., 2004), the Benchmarks of Quality (BoQ) (Kincaid, Childs, & George, 2005), the Benchmarks of Advanced Tiers (BAT) (Anderson et al., 2009) and the Independent Student Systems Evaluation Tool (ISSET) (Anderson et al., 2009) are used to evaluate the performance of schools.

Organization Drivers. The organization driver identified by the National Implementation Research Network (2017) is comprised of decision-support data systems, facilitative administration and systems interventions. Organization drivers are the core building blocks needed for school and district teams to establish the infrastructure to support the practice and implement systems change (Metz & Bartley,

2012). The organizational building blocks serve as the systems monitoring and communication feedback loops for sharing information within the organization.

Decision-support data systems are the student data systems that inform implementers about decision making. This is a critical component for the MTSS problem solving process and decision are based upon current reliable data that is accessible in the classroom to make informed decisions. If the feedback loops of performance evaluation and decision support data systems indicate needed changes, then the organization adjusts aspects of the system to improve the effectiveness of the intervention. Decision support data is a critical portion of effective implementation of MTSS, yet the current review of literature reflects very few data systems to evaluate the social and behavioral assessments of students. Academic performance measures are used quite frequently for both classroom academics and discipline behavior. The majority of the literature is focused on PBIS and SWPBS as the primary evidence-based practices used in California schools. PBIS and SWPBS are both a practices used in schools that rely upon data collection systems to measure program implementation and effectiveness.

Facilitative administration drives the implementation process keeping staff on point, organized and focused on targeted outcomes (Fixsen et al., 2009). Before MTSS can be implemented, school leaders need to establish school-wide team who supports MTSS implementation (Horner, et al., 2014). The Kansas department of Education (2013) predicted the success of MTSS is contingent upon the role of the site leadership as the change agent. In this critical role the principal or MTSS leader

has the responsibility of creating capacity, a shared vision, building the team, and attending meetings and trainings. Facilitative administration refers to the actions taken by implementers to ensure MTSS systems are working effectively and feedback communication loops are used to identify problems and improve infrastructure (Freeman, Miller & Newcomer, 2015).

Systems interventions involve establishing partnerships within the immediate and broader systems in order to acquire the external funds, human resources, and organizational systems needed to support MTSS (Metz, Blasé, & Bowie, 2007). Systems interventions will be constantly needed to adjust to the changes in schools funding and the allocation of resources. In some cases, systems interventions are used to expand MTSS implementation, while in other cases, such as small rural schools, certain policies and procedure may need to be altered to implement effective MTSS.

Leadership Drivers. The leadership driver is split into two types, technical and adaptive. Technical leadership referrers to the ability to acquire the knowledge needed to navigate external systems such as policy and procedure when problem arise. Adaptive leadership are the leadership skills related to vision, inspiration and consensus building (Eagle et al. 2015).

Technical challenges are more easily identified and addressed with active facilitation of the elements of MTSS (Freeman, Miller & Newcomer, 2015). Leadership must respond to information by making corrective and constructive changes in the system to support the work at the practice level (Barber & Fullan, 2005). When technical problems are identified a clear pathway is needed to find a

solution. The leadership is the primary group to administer changes and recommendation for technical challenges.

Adaptive challenges are more difficult to recognize and the typically not resolved through traditional practices. As an example, adaptive leadership strategies would be needed when a school or district encounters resistance to implement MTSS from an employee or stakeholder. Adaptive leadership is needed at all stages of implementation and is often encountered when asking individuals to change practice, or make systems change. This highlights the importance of building capacity and infrastructure prior to implementing MTSS.

Systems change is needed in schools in order to build and sustain an evidence-based practice in schools. MTSS is a system change that can be implemented with fidelity through the drivers of competency, organization and leadership. The identified drivers will act as indicators to measure how small rural schools and district are implementing the MTSS evidence-based practice and creating systems of support for students. A paradigm shift in thinking is a part of this systems change. The shift is from a deficit thinking model to an asset-based model to support all students. MTSS asks not "What is the least restrictive *place* to instruct a student?" but asks, "What is the best instructional situation for this student to successfully engage in the general curriculum?" (Sailor, 2015).

Factors involved for the successful implementation of MTSS is not well understood and the complex factors involved with the implementation of MTSS in a rural school setting has not been explored. Leaders are struggling to manage limited

resources and with the implementation of organizational change such as MTSS

because it requires carefully planned implementation science principles (Castillo &

Curtis, 2014) The scientific study of the implementation of evidence-based programs

is known as implementation science. This is the lens that was used to examine how

rural schools are implementing MTSS. It is apparent that there is a gap in the

literature of the knowledge relating to how a rural schools and rural school leaders are

implementing an organization change to MTSS and how rural schools have

successfully managed this task. The implementation science framework will provide

a scientific approach to answer this question.

MTSS and Evidenced Based Programs

MTSS framework includes three tiers of support for students. The degree to

which the intervention is applied varies upon the needs of the student. The evidence-

based practices contained within the MTSS framework include, schoolwide universal

screening for possible academic social and behavioral needs, progress monitoring of

student response to intervention that might require more or decreased intervention,

and data informed practices, (NASP, 2016). Lane and others highlighted five

evidenced based practices for MTSS to work effectively in schools: Universal

screening, Data-informed decision making, an MTSS problem solving team,

Multiple-tiers, and Progress monitoring (Lane, Oaks, & Menzies; Lane, Menzies,

Ennis, & Bezdek, 2013; California Department of Education, 2016; Florida

Department of Education, 2014). The following sections will include a review of the

literature studies regarding the evidenced-based practices of leadership, universal screening, and progress monitoring.

Leadership

School administrators, especially principals are seen as having the ability to develop supportive educational environments for the implementation of MTSS. Effective leaders help organizations and staff through inspiring, guiding, goals setting, conflict resolution, resource allocation. A critical component to the effective implementation of MTSS is the establishment of collaborative teams at all levels. The leader is responsible for creating the environment to guide staff into the practice of collective inquiry, the practice of using data to make decisions and engaging the staff to willingly participate in professional development are all essential aspects of an effective MTSS system.

Summary

The California Department of Education defines MTSS as an integrated, comprehensive framework that focuses on common core state standards, differentiated learning, student centered learning, individualized student needs, and the alignment of systems necessary for all students' academic, behavioral, and social success (CDE, 2019). Regardless of the considerable promise of MTSS, there remains considerable issues for schools to implement the MTSS framework, in particular are the challenges faced by rural schools. Several problems have been identified as school face the challenges of implementing the complex system of MTSS. In particular are the ability for schools to reform, implement evidenced based practices,

taking theory into practice and the expertise among personnel to facilitate site-based implementation. Another considerable challenge is that school districts and school leaders currently have no guide or instructions on how to implement MTSS. The is no roadmap for educator to overcome the barriers of MTSS or to assess and address the social and behavioral needs of students. These challenges are magnified for rural educators who face challenges different from their urban counterparts.

Chapter Three
Methodology

This chapter describes the methods that were used to examine the research questions. The research was designed to address the issues confronted by rural schools and districts implementing MTSS at their sites. By using the drivers of implementation science, the degree to which small rural school implementation of MTSS was assessed. The specific characteristics or factors associated with successfully implementing MTSS within small/rural school districts are not well known.

The researcher investigated the tools that were being used by small rural school districts to measure the social emotional well-being of their students. Understanding that resource allocations and staffing pose a challenge in non-urban metropolitan areas. Additionally, the researcher inquired about the challenges faced by small rural schools who were implementing MTSS through the lens of implementation science. The researcher also investigated the challenges faced by leaders in small rural school district face that are uniquely different from their urban and metropolitan school counterparts. Lastly, the researcher analyzed the demographic differences associated with schools implementing MTSS. All of the schools and districts were identified through the Orange County Department of Education website as schools who have received MTSS grant funding.

The study included multiple research questions. The first question asked: How are small/rural school staff members assessing the social and behavioral intervention

needs of all students? What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? Are there any differences associated with the implementation of MTSS with schools or district demographics? To address these questions, surveys were distributed to small/rural school districts who were MTSS grant recipients in California and follow up interviews were conducted with a small number of volunteer participants. The population consisted of 210 school district contacts all of whom are participate in the California SUMS initiative. The districts were identified thorough the Orange County Department of education website, which lists all the small/rural school districts s that received the grant funding.

The mixed method study utilized a survey instrument and semi-structured interview design. The online survey was developed using Qualtrics software system. Survey participants were emailed a letter that introduced the research purposes, invited them to participate and provided an electronic link to participate in the survey. The survey was expected to take no more than 20 minutes to complete but, in practice extended to 25 minutes on average to complete. At the end of the survey participants were provided the option to participate in a voluntary semi-structured interview. The semi structured interviews were conducted following the survey and administered both over the phone and by electronic video conferencing and the participant responses were recorded electronically. Mixed methods research is a research design with philosophical assumptions as well as methods inquiry. As a methodology, it

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involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the research process. As a method, it focuses on the collecting and analyzing, and mixing both qualitative and quantitative data into a single study or series of studies. The central premise is that the use of qualitative and quantitative approaches, in combination, provides a better understanding of research problems than either approach alone (Creswell & Plano Clark, 2007)

Research Questions and Methodological Concerns

1. How are small/rural school staff members assessing the social and behavioral intervention needs of all students? *(Implementation Driver: Competency)*

2. What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? *(Implementation driver: Organization)*

3. What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? *(Implementation driver: Leadership)*

4. Are there any differences associated with the implementation of MTSS with schools or district demographics?

Geographical Location of Population and Sample

The central and northern part of the state of California is an ideal location to conduct this study due to the number of rural school districts in the state and the timing of implementation of the MTSS initiative. Taking into consideration that the state of California recently allocated grant funding cycles for the development of

MTSS (CDE, 2015), many school and districts are in the early stages of implementation of MTSS. This is unique because California is in the early stages of developing the MTSS framework statewide. Other states such as Kansas and Florida already have an MTSS framework and state policy. As a result, many school districts, including small rural schools, are in the early or various stages of implementing MTSS. This study has the opportunity to view the implementation process as districts are developing policies and procedures to integrate MTSS. Secondly, this study can help to identify best practices and barriers to implementing MTSS that are unique to the population of California and unique to the needs and challenges faced by small/rural schools.

Participant Selection. Purposeful selection of the participants was based upon four factors. First, did the survey participants must represent employees of small rural schools or small rural school districts. Second, were the survey participants must be directly involved as the site level leader or participant in the leadership team with the MTSS system being implemented at the school or district. Third, did the participants function as an integral part of MTSS planning or implementation team at their site. Fourth, was the rural school or district is a participant in one of the cohorts of California state MTSS grant recipients.

Participants from small rural school districts who were selected as MTSS grant recipients were emailed an invitation to participate in the survey. A total of 210 school districts were sent the email to participate. The email included the purpose of the student, the procedures, the potential risks, and contact information. The email

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included a description of the time commitment needed to complete the survey and an informed consent agreement (Appendix: A). The electronic consent agreement had to be submitted before the participant was allowed participate in the survey. Participants were informed during the consent process that their identities would remain confidential and that the participants could withdraw from the survey or discontinue at any time. There were no identifiable risks associated with this study. This study involved no more risk than what participants would encounter in normal school assessment activities. A total of 72 participants started the survey and 38 participants completed all sections of the survey. The researcher sent an initial email out to participants and found that 47 email addresses were invalid. The researcher reconfirmed the email addresses and resent the email to those individuals which were invalid. After the initial email, the researcher resent the invitation to participate those individuals who had not completed the survey three additional times.

Procedures. To address these purposes and to retrieve information from school level personnel, electronic surveys were distributed to individuals working in small/rural school districts. The targeted individuals were ones who were in leadership positions in MTSS grant recipient schools in California. Following the survey, interviews were conducted with a small number of volunteer participants who indicated a willingness to participate from the survey instrument. The projected sample size was 210 schools or school districts all of whom were participating in the California SUMS initiative. The schools and districts were identified thorough the Orange County Department of education website which lists all of the schools and

district who were in receipt of the MTSS grant funding. The researcher made every effort to identify only rural education site and did not request information from large urban schools or districts.

Design Elements

Survey questions were aligned with the integration drivers and then realigned to the research questions (Figure 2). Research question four was not configured through the lens of implementation science and is the only question designed in this manner. Research question four was designed to measure the demographic data of the survey participant schools not the individual. By using basic demographic data, the researcher intended to measure the school size and leadership experience of the school leader and how that data influenced the responses to the other data collected.

Demographic Data on Participating Schools and Districts

As displayed in table 1, overall respondents indicated that there were no schools with an enrollment size of 50 and under. The largest grouping of school enrollment was with a school size of over 200 students measuring 60 percent of the respondents and 19 of 32 schools. The majority of the respondents indicated the school enrollment size ranged between 100 and over 300 students. Of the sample, the school enrollment responses in school size of 0-50 ($n = 0$), 50-100 students ($n = 2$), 100-200 students ($n = 11$), 200-300 students ($n = 6$) and over 300 students ($n = 13$).

The respondents were also asked to indicate the number of school sites in the school district, one school or a single school district, 2 to 3 schools in the district, and more than 3 schools in the district.

Competency Drivers	RQ 2: 2. How do small/ rural school districts develop effective MTSS strategies to address the social/behavioral needs of students.	Draft Survey questions
Performance Assessment (Fidelity)	1. Fidelity self-assessment tools for teams 2. Observational tools to monitor performance 3. Formal evaluation processes	1. How often does site progress monitoring occur? (never, infrequently, often) 2. What observational tools are used to monitor performance? (Observation logs, forms, data trackers) 3. Is there a measure to evaluate MTSS program and site goals? (Yes/no) How often is the measure used?
Selection	4. Selection of staff members 5. Readiness assessment tools and processes 6. Administrative buy-in and resource availability	4. How were MTSS staff members selected to participate on the site MTSS team? (volunteer, appointed) 4a. If appointed by who? 5. Does the school have a, interim common assessment tool used to assess student progress? (Yes/no) 5a. What is being used as the interim assessment? 6.The site level administrator plays a role in determining resource allocation and personnel assignments related to MTSS? (Yes/no) 6a. How much influence does the site level administrator have in determining the use of this resource? (Scale 1-5)

Figure 2. Alignment of the implementation drivers, constructs and survey questions.

As displayed in table 2, a majority of the responses indicated the size of the district was a single school district. 38% of the responses indicated that they were located in a single school district. 30% indicated that they were in a district with 2 to 3 schools. 20% indicated that they were in a district with 3 or more schools.

Table 1

School Enrollment Size

School Enrollment	Percentage	Number of Schools
1-50	0	0
50-100	6	2
100-200	34	11
200-300	19	6
Over 300	41	13
Total	100%	32

Note. School configuration was not taken into account (i.e.: Elementary, middle school K-8, High School.

Table 2

Number of Schools in the School District

Number of Schools in the District	Percent	Number of Responses
Single school district	44	14
2 to 3 schools in the district	41	13
3 or more schools in the district	15	5
Total	100%	32

Of the sample, the responses of school size, single school district (n = 14), 2 to 3 schools in the district (n = 13), and more than 3 schools in the district (n = 5).

Table 3 provides the total number of school personnel at the school site. This included all staff members, classified, certificated and administrative staff. Respondents' were asked to indicate staffing size by less than 5, less than 10, less than 20, between 20 and 30, and over 30. As displayed in table 3, a majority of respondent's indicated a staffing size of over 30 (38%). Zero percent of respondents

indicated a school staffing size of 5 or less and zero percent of 10 or less staff

members.

Table 3

Number of Staff Members at the School Site

Staff size	Percentage	Number of responses
Less than 5	0	0
Less than 10	0	0
Less than 20	28	9
Between 20 and 30	34	11
Over 30	38	12
Total	100%	32

Note. n is the number of responses

Table 4

Level of Administrative Experience

Administrative Experience	Percentage	Number of Responses
First year administrator	5	1
Three years or less as an administrator	5	1
Between 4 and 6 years as an administrator	9	3
More than 6 years as an administrator	81	26
Total	100%	32

Respondents' were asked the level of administrative experience. As shown in

table 4, the majority respondents in the survey indicated that they were school leaders

who were employed in an administrative capacity over 6 years, 81%. 9% of the

respondents' indicted that they had between 4 and 6 years of administrative

experience. 5% of the respondents' indicted that they had 3 years or less of

administrative experience. 5 % of the respondents indicated that they were first year administrators.

Data Collection Methods

The design for this study involved the use of a concurrent triangulation mixed method design. A survey tool using the computer software program Qualtrics was used to gather participant data. Individual semi-structured interviews were conducted with all volunteer participants who elected to participate. The survey tool included fixed response questions, Likert-type scale responses, yes/no questions and open-ended fill-in questions. The researcher sent out e-mail invitations to recruit potential survey participants. For interview participants, the researcher contacted voluntary participants and scheduled individual appointments based upon the what was convenient for the volunteer participant and the availability of the researcher.

Survey Instrument. The survey instrument was constructed based upon the principles of implementation science designed by Dr. Dean Fixsen of the National Implementation Research Network (NIRN, 2017). The survey questions were constructed around the implementation science drivers of Competency, Organization and Leadership outlined by the implementation science (Fixsen et al., 2005) conceptual framework as shown in figure 2 on page 50. The survey consisted of thirty-six multiple choice and response questions. Quests were developed to answer the research questions and to measure the level of implementation of MTSS in rural schools. The survey was administered through the Qualtrics computer software system. The Qualtrics system is designed to remove the IP address information of the

subject participants from the data to maintain participant confidentiality. Prior to distribution, the survey was piloted in the spring and summer of 2018. Feedback from the pilot survey was used to make additions and edits to the survey questions. This process increased the validity and reliability of the survey instrument prior to participant recruitment and participation.

Survey Instrument Validation: Pilot Project. The researcher conducted a pilot survey of questions and interview protocol questions to individuals knowledgeable about MTSS. The survey questions were sent to two classmates in the EDD program and six school level faculty working in MTSS schools. The survey questions were sent to three local county level employees, and two San Jose State faculty members. At the early onset of the survey development feedback has been used and structural recommendations have been adopted. The intent of the pilot was to ensure validity of the instrument and to establish a baseline for the timing of survey instrument. The information gathered from the pilot project help to clarify survey and interview questions and to eliminate repetition.

Interview Protocol. The interview was the second of a two-part process for data collection related to this study. The research sought to understand how small rural schools and districts are implementing MTSS systems and procedures. The interview itself took about 25 minutes to complete and included questions related to how small/rural schools overcame the challenges of implementation. This interview process included questions about leadership, resources, budgets, social behavioral health, best practices, and next steps. The purpose was to help the researcher

understand the challenges that impact schools and districts who are attempting to overcome the barriers of implementing MTSS. The researcher requested permission from the participants to record the interview, so that the researcher could accurately document the information provided. This statement was read to each interview participant; "If at any time during the interview you want to stop, please let me know. Your answers are confidential, your name, district, and school will not be used in any way in the research paper. The data will be coded and reported in the aggregate and will not be directly attributed to one person. All coding information and interview responses will be deleted upon completion of this research study. Every attempt will be made to ensure that there is no foreseeable risk for participation in the survey or interview. Audio and digital files were transcribed by Rev.com and the files will remain on the researcher's personal password protected computer."

The participants were informed that participation in the interview was completely voluntary and that if at any time the participant needed to stop, take a break, or felt uncomfortable, return to a question, they could do so. The participants were informed that there was no compensation for participating and their participation was completely voluntary. For the volunteer interviews, upon meeting with the participants, the researcher introduced himself and explained the research project briefly (Appendix B). After introducing the project to the individual participants, the researcher asked the participant for the willingness to participate in the study. A copy was be provided to the participant and the second copy was retained by the researcher. All consent forms were maintained in a confidential locked file cabinet by

the researcher. Once the interview consent forms were signed the researcher will

proceeded with the interview.

Data Analysis

In the data analysis of the study, the researcher used survey data and interview

transcripts as material for creating substantive categories of the information

concentrated on the research questions and the implementation drivers. This step

provided a context for connecting themes to formally analyze the data. Survey data

collect through Qualtrics was downloaded and analyzed. The digital files recorded by

the researcher during the interviews was emailed to a transcription service and the file

were secure on a password protected computer.

Preparing the Data for Analysis

For the quantitative date, the researcher established medians and percentiles

related to each question distinguish similarities and differences (deductive) between

participant responses and to assign numeric coding values to the data. Second, the

researcher selected particular questions to run cross tabulations between questions.

Lastly, the researcher developed a thematic matrix to provide sub-categories to

answer aspects of the research questions.

For the qualitative data, the volunteer interview recorded data files were

submitted for transcription through a transcription service. The transcription service

that was used to transcribe the audio files was ***Rev.com***. The researcher submitted the

files to Rev.com and request the transcription. The audio files remained in the

possession of the researcher until the conclusion of the study and were deleted upon

completion. The audio files will not be used for any future or further studies. The data files did not contain the names or locations of the participants.

Exploring the Data. For the quantitative data, the coding matrix will provide sub-categories to answer aspects of the research questions and to provide for categories and emergent themes of the data. An inspection of the data reveled a descriptive analysis through external standards such as the mean, standard deviation, and variance of responses on the instrument to determine trends in the data. The quality of the scores were used to examine the reliability and validity of the data. For the qualitative data analysis, the researcher used an analysis of the transcripts from the interviews to develop broader categories and general themes. After reading the interview transcripts multiple times identifiable themes began to emerge. The general themes in the transcripts were assigned color codes to align emergent themes to prepare for the analysis of the data. The different themes were then compared and analyzed.

Analyzing the Data. An examination of the database was based upon the research questions and statistical tests were used to develop a description of the trends in alignment with the drivers of implementation science and the research questions. This lens provided a descriptive analysis of the data that lead to an inferential analysis of the quantitative responses. The qualitative data coding divided the text from the transcripts into smaller units aligned with the drivers of implementation. The smaller units were combined to form larger themes in the data to create interrelated themes

and a broader perspective on the levels of implementation of MTSS and the challenges to do so.

Representing the Analysis. The quantitative data representation was organized and presented by the implementation divers, Competency, Organization and Leadership. Secondly by research question one, how are small/rural school staff members assessing the social and behavioral intervention needs of all students? What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? Are there any differences associated with the implementation of MTSS with schools or district demographics? Question one and three were represented by a visual use of bar charts and line graphs to depict the trends and distribution of the data. Question two was represented by using a table to report on the descriptive evidence provided. A discussion of the data was used to report on the qualitative data in the study. The discussion was used to elaborate on the emergent themes in the data and to cite evidence of interrelated themes.

Interpreting the Analysis. The interpretation of the analysis is contained in the discussion section of the study in chapter five. The data from the quantitative and qualitative analysis were combined to answer aspects of the research questions. The quantitative and qualitative data was consolidated and compared to the findings in prior research. Separately, the interpretation was filtered due to the personal experience of the researcher on the implementation of MTSS.

Limitations and Validity Threats

The limitations of the research study and research questions are presented in this section included positionality of the researcher, the site selection, and the participant selection process. Secondly, the section included discussion of the procedures that were used to collect the data and the survey instrument will be explained. Next, the interview protocol process and data analysis will be detailed. As a part of the discussion of the limitation, the independent and dependent variables were explained as well as the concerns with the validity of the instrumentation and data that were collected and analyzed.

Participant sample size is a limitation due to the participant criteria established in the scope of the study. MTSS grant recipients and small/rural school size restrict the sample pool and this control was established by the researcher. This sample size limitation impacts the responses and experiences of the participants as only located in rural settings. Responses were not collected from urban and suburban schools or districts. Other limitations included the methodological approach of using implementation science as a conceptual framework. This control was imposed by the researchers but acts as a limitation in that no other framework was used. The design of the mixed method study is a limitation as this approach as it does not consider other methodologies such as epistemology or a narrative approach for the collection of data. The time that the study took place in an additional limitation as the study was conducted over half a school year, some schools or district may not have been afforded the time to properly establish their own MTSS program. The limited

investigation completed up to this point on the topic by the researcher and the researchers experience in conducting a doctoral research project is an additional limitation.

Other limitations include the inconsistency of the job roles of the participants, and the inconsistency of different stages each site was with the implementation and training with MTSS. Other limitations could include the responses of the participants as some participants may have withheld information about their sites because they did not want to appear that the school had problems. Another potential limitation is that participants may not have had ample time to complete the survey or may have skipped questions which may impede the results.

The sample size of 210 MTSS grant recipient schools reflects only a portion of the schools across California in the process of implementing MTSS. The Orange County Department of education lists 546 school districts as California MTSS grant recipients on the websites interactive map. Of the 546 school only a portion of those schools are identified as rural schools. 210 California rural school districts were sent the invitation to participate in the survey and a total of 72 responded. Of those 72 that started the survey only 38 completed the survey. Due to the small response rate, generalizability is not possible. Additional research would be needed with a larger sample size to generalize these finding to the state of California and to better understand how rural schools are implementing MTSS. Additionally, the participants of the study were sent the email invitation to participate assuming that they were the

site principal. The responses were self-reporting in and none of the practices were directly observable.

Variables Associated with Successful Implementation of MTSS

Three independent variables were used to analyze the implementation of MTSS in small rural schools. The variables used in the study were the three implementation science drivers: (1) Competency, (2) Organization, (3) Leadership. The factor within these variables will be discussed below. The implementation drivers of (1) Competency, (2) Organization, (3) Leadership are policies or practices that can be used to improve evidence-based programs or practices (Fixsen et al., 2005). Each implementation driver has an associated component to indicate if the driver is being implemented or not. These are called constructs. For instance, competency has four areas (constructs) to consider as to whether or not competency has been implemented.

Competency- A composite variable was created with four construct items. For the implementation driver of Competency, the construct items were, Performance assessment, selection, coaching, and training. Each construct item had associated integration drivers to determine the levels of integration. Survey questions were designed to measure the constructs. Performance assessment which looks at progress monitoring and evaluation had three survey questions. Selection, which looks at assessments and staffing had four survey questions. Coaching, which looks at external supports has three survey questions. Lastly, training which covers professional development had three survey questions. To create a composite the competency variable, the four items were combined into one composite variable to

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indicate the frequency of the implementation driver-competency. The composite of the competency driver had a potential range of zero to five. The competency driver was the selected to determine how small rural school are facing the challenges of implementing MTSS and creating an atmosphere of systems change to do so.

Organization- A composite variable was created with three construct items. For the implementation driver of Organization, the construct items were, System intervention, facilitative administration, and decision support data systems. Survey questions were designed around each integration driver associated with the Organization constructs. For the integration driver, System intervention, providing internal and external resources, there were four survey questions. For the integration driver, facilitative administration, capacity building and problem solving, there were four survey questions. For decision support data systems, meaning, progress monitoring and universal screening, there were six survey questions. To create a composite the competency variable, the three items were combined into one composite variable to indicate the frequency of the implementation driver-Organization. The composite of the Organization driver had a potential range of zero to five. The organization driver was selected to address the research question about providing social/behavioral supports for students. This was intentional due to the integration drivers of data analysis, progress monitoring and universal screening of student needs.

The implementation driver of Leadership is the technical and adaptive leadership within a school district that builds the implementation capacity to use MTSS within

schools and classrooms (Fixsen et al., 2013). The composite variable for leadership

was created with two constructs. The construct items were Technical and adaptive.

The technical construct has three integration drivers that measure management skills

and evaluation. The technical construct had three survey questions to measure the

levels of implementation. The construct of adaptive leadership measures conflict

resolution and problem solving. Adaptive leadership had three integration drivers

with three survey questions. To create a composite the leadership variable, the two

items were combined into one composite variable to indicate the frequency of the

implementation driver-leadership. The composite of the leadership driver had a

potential range of zero to five. The leadership driver was used to analyze the specific

practices used by rural school leaders to navigate the challenges of implementing

MTSS and creating a culture of sustainability.

Variables with Assessment Instrumentation

The dependent variable is the self-reported implementation of MTSS, the

challenges faced by small/rural schools and districts, and how the schools are

assessing the social-emotional and behavioral needs of students. On a five-point scale

and through yes and no questions respondents rated the scale to which MTSS was

being implemented through the lens of the implementation science drivers.

Individually, each self-reported implementation driver construct was used to

determine the degree to which the construct was being implemented. Separately, the

self-reported challenges to rural schools use coded and cross tabulated to determine

trends and general themes. Lastly, the self-reported measures used to gage the social-

emotional and behavioral needs of students was coded and labeled for frequency. The researcher used data charts and descriptive statistics to compile, analyze and report on the data.

Validating the Data and Interpretations

Establishing the validity of the data is critical and the researcher used a variety of instruments to ensure consistency of the research findings. For the quantitative data, the researcher used the internal statistical tools in the qualtrics susytem to calculate the survey results. This tool is used to measure internal consistency and how well the items correlate with each other and measure the same construct. For the qualitative data, the researcher used a coding matrix to ensure the codes were consistent.

Strategies for Increasing Validity Under Limitations

Relationships with those being studied represents a single continuous variable (Maxwell, 2012) due to the relational component between the researcher and the interviewee. The participant may have apprehension in providing answers to a stranger or could be very engaged intellectually with the material. This rapport between researcher and the interview participant represents a significant validity threat. It will be up to the researcher to navigate and evaluate the variability and reliability of the responses and how those responses answer the research questions. An important aspect to be considered is the shared understanding of the MTSS process and the systematic challenges MTSS represents. To address the validity challenges, the researcher will need to discuss the common challenges and common vocabulary MTSS poses in the pre-interview. This discussion can act as a relational

bridge to establish a trusting relationship with the participant and positionality will need to be navigated.

For the survey portion of the study the researcher chose an approach of universal design to develop the questions and prepare for the analysis and the reporting of data. Universal design was used for three reasons: clarity of the constructs being measured, the purpose with which the results will be used, and the subject participant's knowledge of the subject matter being assessed. Secondly, universal design requires that the survey questions are developed to be as useable as possible for the survey participants regardless of participant characteristics such as gender, age, language background, culture, socio-economic status, or disability. Lastly, the universal design approach was used to minimize construct-irrelevant variance by providing clarity in test instruction, that all survey questions are related to the research questions and ensuring a fixed response format to the survey tools to avoid subgroup identification.

Ethical Considerations

"Validity and reliability of a study depend upon the ethics of the investigator (Merriam, 2016). Due to the design, collection and analysis is completed by one researcher in this study, ethics is a significant issue. Frequent checks and balances need to be in place. Insuring protection from harm and rules for informed consent will be strictly followed.

No identifying information from this study will be reported other than the job classifications of the participants collected during the interview process. The researcher will use all available methods to ensure participant's confidentiality is

protected. The researcher will not have any names of potential participants included with any response through the survey tool or through the interview process. The researcher will schedule interviews with administrative participants but will not include names or the employer of the participants in recorded responses. Consent forms will be collected with participants signatures and those documents will be collected and stored in a secure location. The secure location of the documents will be in a locked file cabinet in the researcher's office. Data that collected via survey or by email will be saved on the researcher's password protected computer. Any notes or recording that are collected during the interviews will be collected and stored in a locked file cabinet in the researcher's office.

Reciprocity will be provided to the participants for their willingness to provide data by providing the research findings and data of this study to the participants. The researcher contacted all participants and thanked them for participating and provided the summary data report to all participant. The researchers contacted each interview participant and thanked them personally for participating and provided a cellular contact to each participant for future conversations. Secondly, the participants will be provided the contact information of the researcher and the researcher will be available to questions or advise whenever requested by any participant.

Researcher Positionality

A topic to discuss prior to the design and methods section is the positionality of the researcher. Considerations such as job roles, social class, race and gender are all topics to recognize prior to doing research. As the researcher, my role, what I say and

do, can impact those individuals participating in the research. It is important to consider the implication of positionality in order to maintain the reliability and validity of the research. If what the researcher does impacts or influences the data being collected, then the data is invalid. Merriam and Tisdell discuss the impact of the research on the research as positionality and reflexivity, it is incumbent upon the critical researcher to be reflexive: to consider issues such as positionality and insider/outsider stances in research to try to own their effects in the process in so far as this is possible (Merriam & Tisdell, 2016).

The researcher, as a site level MTSS Superintendent/Principal who is employed at one of the original (cohort 1) California dedicated Knowledge Development Sites (KDS), positionality represents a level of MTSS program integration that other sites do not have. Because of the researcher's background and work in education, there is a bias toward what the researcher believes is an effective infrastructure and implementation methods for MTSS. As the researcher, there is a need to be mindful that this alone represents an insider power relational issue. It is necessary to recognize that positionality can influence the research questions and research process. The construct of the survey and interview questions were designed with assumptions about MTSS systems, program implementation and prebuilt school structures that are inherent in the public-school system. The researcher recognizes that site administrators and leadership teams may not have the same level of systems in place at all locations and may have multiple levels of implementation of MTSS occurring simultaneously. The researcher was mindful that this will have impact how the

participant responded to the questions. The researcher was mindful not to interject

positionality or insider information during the recruitment, survey or interview

process.

A secondary positional aspect of the researcher is his personnel experience with

students of special needs. The researcher had a child with extreme special needs both

medically and developmentally. This impacted the lives of the researcher and the

researcher's family and established a deep interest for meeting the needs of students.

A new appreciation was formed and sensitized the family with a perspective on the

special medical needs of individuals and unique needs that all individuals have. This

experience with special needs has impacted the researcher and his perspective and

appreciation for special populations and the diverse interventions special needs

populations require.

It is this researcher's belief that MTSS is a way to improve educational services to

all students by making data informed decisions and using multiple structures to meet

the academic, social and behavioral needs of all students. Furthermore, the researcher

believes that MTSS represents a new framework and process used to meet the unique

needs of the most marginalized students by addressing the social and emotional

learning needs of students who are normally outside the scope of typical school

support systems. MTSS represents a new methodology of how to meet the needs of

the whole child.

Because this researcher brings a bias to this study, the researcher controlled this

bias by objectively reviewing and analyzing the data to maintain the reliability and

validity to the data. It is in this researchers' best interest to provide accurate research findings that contribute to the field of education and the best practices for the implementation of MTSS. By providing this, the researcher hopes to support other educators with strategies and best practices to implement MTSS and to support our most marginalized student populations in academic and social growth.

Summary

Chapter three communicated the purpose of the current research study and provided a detailed summary of the methodology and research design. The illustration of the problem, the outline of the research design, the description of the sample population, assessment instrumentation and the data analysis plan were discussed. Mixed methods were most appropriate due to the need for generalized findings for selected populations. Using the mixed methods design, the associations with the implementation drivers and the implementation of MTSS in rural California public schools will be investigated. A survey design is appropriate because participants provide experiences and practices related the implementation of MTSS in rural schools. Additionally, this chapter reviewed the data collection and analysis process of the information gathered. The primary source of data was the electronic *Qualtrics* survey designed by the researcher. The target population was the identified rural school leaders employed at California rural schools who have received MTSS grant funding in order to implement MTSS. Chapter four will present an analysis of the results including discussion of the relationship of the findings to the literature review.

Chapter Four
Introduction

The study had two purposes. The first was to answer the question; How do small rural schools and districts implement evidence-based multi-tiered programs such as MTSS? Secondly, the study aims to determine how rural schools implement MTSS with limited resources and limited organizational support. Third, there is a disconnect between what the research says, and the professional development being provided to all MTSS schools on how school should implement the MTSS framework.

For this study the following research questions guided this study: 1) How are small/rural school staff members assessing the social and behavioral intervention needs of all students? 2) What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? 3) What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? 4) Are there any differences associated with the implementation of MTSS with schools or district demographics?

Constructs from implementation science such as implementation divers were used to determine the level of implementation of MTSS in California rural schools. Rural leaders were asked to self-report on the challenges and effectiveness of implementation. Rural leaders were also asked questions about the level of buy in by staff members and the levels of support to implement the MTSS framework. The implementation science framework suggests that 80% buy-in of staff or more is needed to implement any new evidence-based practice or program (Blasé, Fixen,

Sims, & Ward, 2015). Implementation Science has identified core components associated with successful implementation efforts. Three major drivers: competency, organization and leadership are essential components related to academic and behavioral MTSS. Within the major drivers are integration drivers, those topics identified to measure the practices needed for MTSS implementation. Based upon the information collected from the divers of implementation science, researchers and scholar can gage the level of implementation and categorize the placement into a level called implementation stages.

Implementation Stages

As mentioned in chapter two the implementation stages are: Exploration, the initial stage in the process. The exploration stage activities include communication about the needs of the organization, the feasibility of implementing a new program, matching what is proposed to address the needs of the target population and the intended outcomes of the change agent. A critical component of the exploration stage is the collective buy-in within the organization from the stakeholders. Second, is the Installation stage which involves the acquisition of resources needed to engage in new ways of work. Essentially the installation stage is the adoption of the innovation. The critical steps in the installation stage are the resources and activities focused on, policy, funding, space, selecting the staff to do the new work, equipment, developing data collection methods and the access to timely training. Evidence-based programs often die at this stage and without the people in place capacity development cannot occur. Capacity to scale up evidence-based programs resides in the people who have

the knowledge, skills and abilities to do this new kind of work (Fixsen et al., 2013). Third, the initial implementation stage reflects the early steps taken to introduce a new effort and often involves a learning curve as organizations adjust and integrate new efforts into daily work (Freeman, Miller & Newcomer, 2015). This stage is where staff is attempting to implement newly learned skills and incorporate the skill into new ways of work. Two critical components are essential during the initial implementation stage, external supports and highly involved leadership. Transformation is occurring at this stage and the external supports are needed for staff members to build internal capacity to use evidence-based practice in the schools and in classrooms. Lastly, is the full implementation stage. Full implementation is achieved when over 50% of the staff are engaged in the evidence-based practice and do so with a high degree of performance fidelity. The critical indicate that the evidence-based program is in place is that the staff members are skillful with the new program and it has become routine in the daily practice.

This chapter is organized in three sections presenting the quantitative data first, the qualitative data second followed by a limited discussion of the findings in the third portion of the chapter. As discussion of the findings and recommendations with be presented in chapter 5.

Respondent Rates

The sample of the first part of this study was 210 rural school leaders from California rural schools who are being funded to implement MTSS at their respective school sites. School leaders were emailed a survey invitation to participate in the

study. Thirty-one school leaders completed the survey. Overall, this represented a response rate of 14.7 percent. The researcher elected to include responses from individuals who started the survey but did not complete the survey in the data analysis. Seventy-two individuals started the survey and elected not to finish the survey. Those individuals who started but did not finish competed various levels of survey completion.

The sample of the second part of the survey, the interview, was 31 rural school leaders who were presented with an invitation to participate in the interview portion of the study. Rural school leaders were asked for their willingness and consent to be interviewed at the end of the survey instrument. Of the 31 rural school leaders, 7 indicated a willingness to participate in the interview portion of the survey. Overall, this represented a response rate of 22.5 percent. All 7 respondents were contacted and asked to participate yet only three respondents ultimately agreed. This represents a final total of 3 responses that were used for analysis.

Findings Research Question One

Respondents were asked about how the school is meeting the social and behavioral needs of students. Through the implementation framework and using the integration drivers, survey questions were designed to measure the integration drivers within the implementation driver of Competency. The four integration drivers were performance assessment or fidelity, selection, training and coaching. There were a total number of eight questions designed to inquire about research question one.

Questions contained in the survey to answer research question one were written in a mixed format combining check all that apply, yes and no questions, and Likert scale selections.

In question one, respondents were asked about the instruments used within their school district to assess and monitor the intervention needs of students. Survey question one was designed to allow for the respondents to select from a variety of options and an option to list or fill-in specific tools used to measure student intervention needs. Question one was intended to measure the performance assessment of the competency driver. More specifically to identify the fidelity self-assessment tool used at the school. Survey question one is shown on table 5.

Table 5

Instruments Used to Monitor Student Intervention

Tool	Count	Percent
Forms developed by the school or district	28	52%
Data Trackers	19	35%
Google sheets	13	24%
Observation logs	11	20%
Other	11	20%
No specific tool identified	5	9%

Note: Respondents could select multiple answers to the question. N=54

Survey question two was similar in that it asked participants to identify the tool used to measure the social and behavioral needs students. Question one asked about the intervention tool and question two asked about the social and behavioral tool. Like question one, question two asked about the performance assessment tool, more

specifically about the observational tool used to monitor social and behavioral needs. Much like question one, the bulk of the responses were in the categories of data trackers, forms developed by the school or district and google sheets. The difference with question two was that more respondents selected observation logs over google sheets. The categories with the most responses indicated in both question one and question two that the assessment and observational tools being used by the districts to assess the social and behavioral needs of students are self-designed. All three categories are locally based and not designed by an outside entity or publisher, perhaps indicating that schools are in the early stages of implementation. The top three categories listed in table 6 list 33%, 38% and 40% of respondents, roughly a third of all participants use these items and 52%, 35%, and 24% of responses for question one.

Table 6

Instruments Used to Monitor Social and Behavioral Needs

Tool	Count	Percent
Observation logs	22	40%
Forms developed by the school or district	21	38%
Data Trackers	18	33%
Google sheets	12	22%
Other	12	22%
No specific tool identified	7	13%

Note: Respondents could select multiple answers to the question. N=54

Respondents were asked about the information that is being collected on the social and behavioral needs of students and how often the information as collected. Separately the respondents were asked if they felt that the needs of students were

being met. In table 7, respondents were asked their opinion if the social and behavioral needs of students were being met. The integration driver being addressed in this question is the diagnostics being used within the organization driver. By combining the responses of seldom and sometimes, the sum equals 51% of the time student's social and behavioral needs are not being met and 44.68% indicated that the needs were met often. Only four respondents indicated that the needs were being met always.

Table 7

Are the Social and Behavioral Needs of Students Being Met?

Never	0%	0
Seldom	4.26%	2
Sometimes	46.81	22
Often	44.68	21
Almost always	4.26	4

A comparison of question 7, are the social and emotional needs of student being met contrasted with the level of respondent's administrative experience indicated that the majority of respondents had over 6 year of experience. Based upon the respondents' level of experience the majority felt the needs of students were sometime and often met. This contrast was run with the assumption that the more experience the administrator had provided the administrator with an increased ability to determine if the needs of students were being met.

Survey questions three asked respondents if the school provided an instrument to evaluate student social and behavioral needs of students. In question three 36%

indicated that the school had an instrument and 64% said that they did not have an instrument. Question four asked respondents if the school was able to measure student social and behavioral needs of students.

Table 8

Administrative Experience Contrasted with Meeting Student's Social and Behavioral Needs

Frequency					
	1st year	3 years	4-6 years	+ 6 years	
Never	0	0	0	0	0
Seldom	0	0	0	0	0
Sometimes	1	1	1	13	16
Often	0	0	2	12	14
Always	0	0	0	1	1
Total	1	1	3	26	31

In question four 26% said that the school was able to measure the needs of students and 74% said that did not have a measure. Combining questions three and four respondents indicated that school was not able to evaluate or measure students social and emotional needs of students.

In summary for research question one, the responses indicated in tables 5 and 6 indicate that the schools and faced with developing their own assessment tools to assess the social and behavioral needs of students. This is consistent with table 8 which indicates that the staff members at the school sites do not have an evaluation instrument or a measurement instrument to assess the needs of students.

Findings Research Question Two

Respondents were asked about the challenges faced by small rural school leaders with the implementation of MTSS and how those leaders confront those challenges. Through the implementation framework and using the integration drivers, survey questions were designed to measure the integration drivers within the implementation driver of Organization. The three integration drivers were systems intervention, facilitative administration, and decision support data systems. There were a total number of twelve questions designed to inquire about research question two. Questions contained in the survey to answer question two were written in a mixed format combining check all that apply, yes and no questions, and Likert scale selections. A specific design element in the survey questions for research question two contained question specific to the leader framed in the first person.

A key structural component of the MTSS framework is that a staff has a comprehensive data system to inform decision regarding student needs (Orange County Department of education, MTSS guide, 2017). Table 9 asks about the data systems and more specially about the data being collected for the use of making all decisions at all levels called Universal screening. Respondents were asked about a universal screening tool or instrument is used as a process for assessing a student's academic and intervention needs. Table 7 below, indicated the types of tools used to assess student needs.

Table 9

Type of Screening Instrument

Teacher recommendation	22.14%	29
Curriculum based assessment	19.85	26
Standardized testing materials	16.79	22
Independent or contracted benchmark assessment	15.27%	20
Class/school/district-based benchmark assessment	9.85%	26
Other	6.11%	8

Note. Respondents could select multiple answers to the question.

The highest percentages all fall within a similar range, between 15% band 22%.

The respondents indicated that something is being used but the specific instrument is

not universal or the same. Two of the top selections, Teacher recommendation and

class/school/district based are self-developed, not prewritten or from an outside

source. The two responses are school developed which make them unique to the

school. This points to the idea that there is no uniformity to the universal screening

process and that schools are measuring different things at different schools.

Training and capacity building are identified as necessary components of

implementation and identified previously in this chapter as a transformational aspect

of the organization. A challenge for administrators is to provide the needed training

and skills for staff members to use evidence-based practice in the schools and in

classrooms.

Respondents were asked if as a site level administrator, they had the ability to

build the capacity of staff to implement MTSS. 32 of 37 (86.49%) respondents

indicated that, yes that had the ability to build the capacity of the staff to implement

MTSS. Separately in survey question 9, respondents were asked if they were the ones responsible for providing the site level MTSS training 71% indicated they were always or very often the only ones providing the training. As a follow up question to providing the training, table 10 respondents were asked if they as administrators had the resources to meet the needs of staff with the implementation of MTSS. A cross tabulation was run to review the amount of resources available for staff support and if the size of the school made a difference. As reflected in table 10a. the size of the school remained consistent that the needs were only sometimes met as the most popular response.

In chapter two it was noted that the complexity of MTSS requires school administration and leadership teams to find unique and creative methods to allocate resources when implementing new programs. For the implementation of MTSS, new creative methods are required to address the social and behavioral needs of students. Rural schools are faced with challenges with resources in personnel, budget, facilities, professional development and proximity to social services. Respondents were asked if they were able to identify the challenges of implementing MTSS as a yes, no or sometimes. The largest selection was that administrators could sometimes reduce the challenges as 74.29% or 26 of 35 respondents made this selection. Following this line of questioning, respondents were asked to rate the level of challenge with the management of school resources in Table 11.

Table 10

Does that Staff Have the Resources to Implement MTSS

Never	2.94%	1
Seldom	17.65%	6
Sometimes	58.82%	20
Often	20.59	7
Almost always	0%	0

Note. $n=34$

By looking at each question or challenge and reviewing the selections of the respondents the researcher determined that the three top choices for each challenge pointed to a specific barrier for rural schools.

Table 11

Comparison of School Size and Staff Resources

Size	Never	Seldom	Sometimes	Often	Always	Total
1-50	0	0	0	0	0	0
50-100	0	0	2	0	0	2
100-200	1	1	6	3	0	11
200-300	0	1	2	2	0	5
Over 300	0	4	7	2	0	13
Total	1	6	17	7	0	31

The statement of Maintaining quality staffing scored the highest in always, frequently and occasionally a challenge at a combined total of 77.14%, 27 of 35 respondents. Unique to this statement were the number of respondents who selected always a challenge, higher than any other statement at 25.71%. The statement of effective use of financial resources scored highest in scored the highest in frequently occasionally and rarely a challenge at a combined total of 82.86%, 29 of 35 respondents.

The statement of ability to implement evidence-based programs was different as the highest number of respondents selected the choice of frequently and occasionally a challenge at 80%, 28 or 35. The statement of creating a positive climate and culture scored in them highest two area of occasionally and rarely a challenge at a combined total of 74.28%, 26 of 35 respondents. The statement of maintaining adequate facilities a total of 29 respondents selected always, frequently and occasionally at 82.86. The statement of using and analyzing student data scored highest in frequently occasionally and rarely a challenge at a combined total of 94.28%, only 2 respondents selected always a challenge. The last statement, providing tiered interventions for students, scored the highest in frequency a challenge higher than any other field at 51.43%. Slightly more than half the respondents indicated that this key component of MTSS was frequently a challenge.

As a follow up question, respondents were then asked, in a yes or no survey question, if they could identify the challenges they were facing as administrators with the implementation of MTSS. 77.14% of respondents indicated yes, they could identify the challenge.

Respondents were asked to select the degree control they had as administrators in the management of MTSS resources the responses are reflected in table 12. Each of the resources were listed separately and the respondents could select the amount of control on a Likert scale from 1 meaning no control to 5 being full control.

Table 12

Greatest Resource Challenges for Rural Schools

Question	Always	Frequently	Occasionally	Rarely	Never
Maintaining quality Staffing	25.71% (9)	20% (7)	31.43% (11)	22.86% (8)	0% (0)
Effective use of Financial resources	17.14% (6)	25.71% (9)	34.29% (12)	22.86% (8)	0% (0)
Ability to implement Evidence-based programs	8.57% (3)	37.14% (13)	42.86% (15)	8.57% (3)	2.86% (1)
Creating a positive climate and culture	2.86% (1)	14.29% (5)	45.71% (16)	28.57% (10)	8.75% (3)
Maintaining adequate facilities	20% (7)	22.86% (8)	40% (14)	14.29% (5)	2.86% (1)
Using/analyzing student data	5.71% (2)	25.71% (9)	42.86% (15)	25.71% (9)	0% (0)
Providing tiered interventions for students	11.43% (4)	51.43% (18)	22.86% (8)	14.29% (5)	0% (0)

Note. *n*=35

To determine the level of control available to the site administrator the researcher

concentrated on the highest and lowest fields selected by topic. In the area of

personnel assignments, the respondents indicate that they had full and or most of the

control at 57.89% or 22 of 35. In the area in the allocation of counseling services,

respondents selected small, shared and most of the control at 76.31%. The selection

of a shared amount of control was the highest response in both assessment tool selection (39.47%, 15) and assessment tool administration (52.63%, 20).

The area of student intervention assignment, the selections of share and most of the control accounted for a combined 78.95%. Lastly the area of budget allocations was the most widely dispersed category with selections in levels of control. Full control was the most highly selected area at 26.32% at 10.

Allocation of funding as indicated above can be a shared or an individual decision based upon the needs of the site or the needs of the students at the school. The ability to access alternative funding sources, funding sources outside the school or outside state funding sources can be much different based upon the location of the school and the wealth of the community.
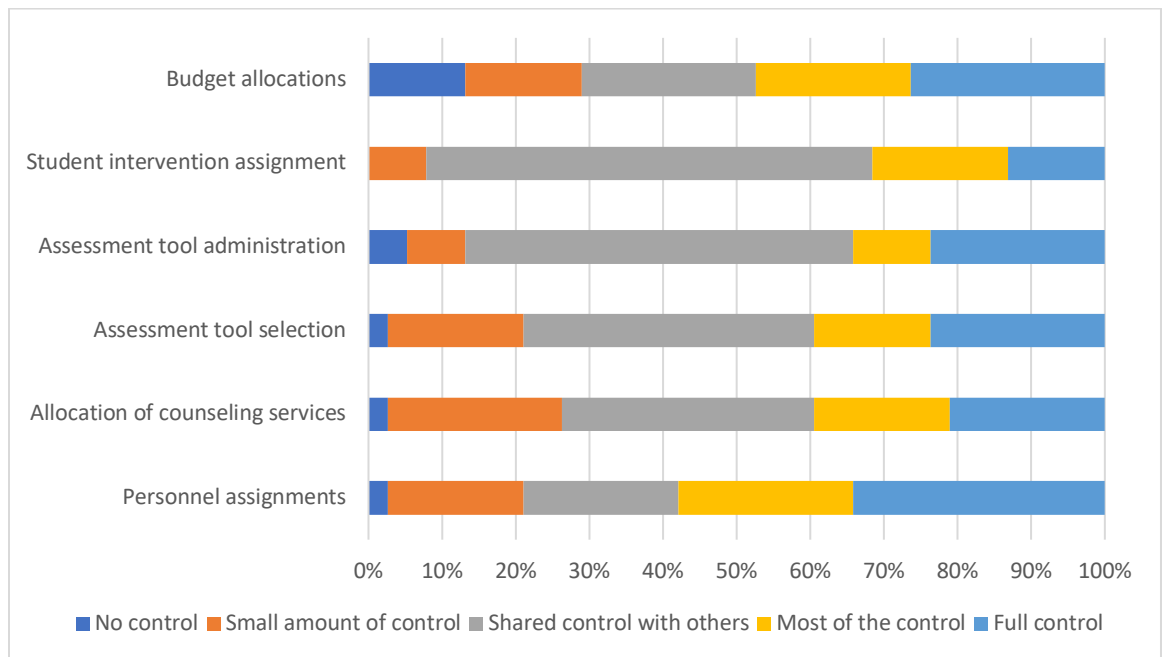
Figure 3. The amount of administrative control compared with the amount of control shared with others with regards to specific leadership function associated with MTSS.
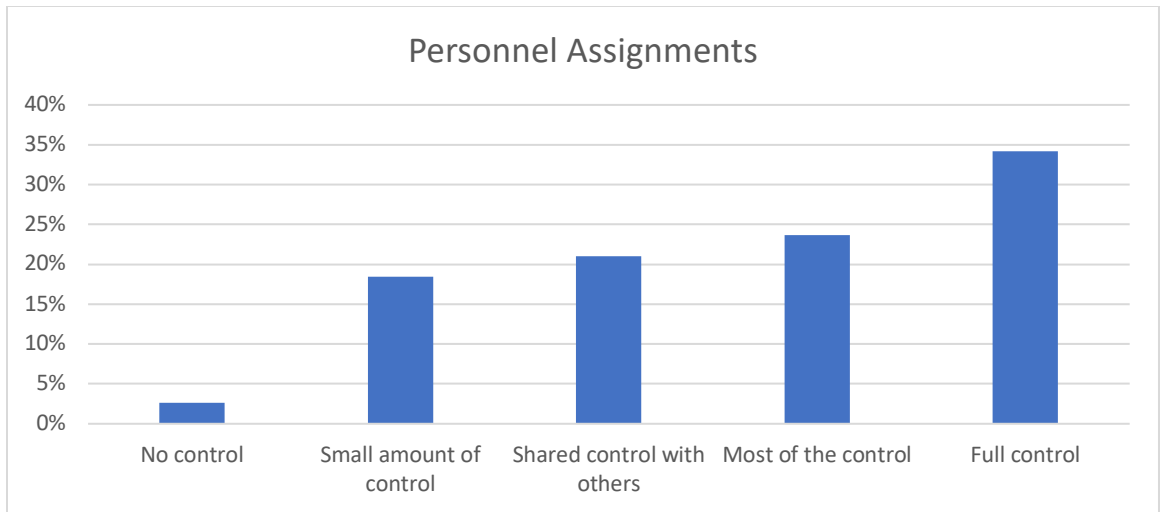
Figure 4. The amount of control administrators have in determining the personnel assignments associated with the implementation of MTSS.

When asked about access to additional funding sources, respondents were split, indicating that 51% said yes and 49% said no to having access to additional funding. When asked what those funding sources where, most indicated MTSS grant funding.

In determining the items for the respondents to address the researcher considered a number of challenges typical administrators would encounter based upon the implementation divers and site needs. In the area of outside support received for addressing the challenges of MTSS, 44.74% of respondents selected occasional support. In building staff capacity, a key component of the installation stage of implementation, respondent's selection ranged from no support, 13.16%, very little support, 23.68%, occasional support at 34.21% combining for a total of 71%. In the site planning phase, the amount of support received from outside supports were

identical at, no support, 13.16%, very little support, 23.68%, occasional support at

34.21% combining for a total of 71%.

Table 13

Receiving External Support for Implementing MTSS

Question	No support	Very little support	Occasional support	Frequent support	Always receiving support
Addressing challenges of implementing MTSS	7.89% (3)	18.42% (7)	44.74% (17)	18.42% (7)	10.53% (4)
Building staff capacity	13.16% (5)	23.68% (9)	34.21% (13)	23.68% (9)	5.26% (2)
Site planning for implementation	13.16% (5)	23.68% (9)	34.21% (13)	23.68% (9)	5.26% (2)
Budgeting	15.79% (6)	31.58% (12)	31.58% (12)	10.53% (4)	10.53% (4)
Conducting school needs assessments	17.95% (7)	23.08% (9)	51.28% (20)	2.56% (1)	5.13% (2)
Developing leaders	18.42% (7)	21.05% (8)	34.21% (13)	23.68% (9)	2.63% (1)
Developing community partnerships	18.42% (7)	34.21%(13)	28.95% (11)	13.16% (5)	5.26% (2)
Securing outside resources	18.42% (7)	34.21% (13)	34.21% (13)	10.53% (4)	2.63% (1)

For budgeting support respondents selected very little support, 31.58 and

occasional support at 31.58 for a total of 63.16%. In the area of conducting a school

needs assessment the selection selected at the highest was occasional support at

51.28. Interesting that the area of frequent support was the lowest of any selection at

2.56%. Adding the totals from no support, very little support to occasional support

totaled 92.31%. The assessment of need and the measure to determine the readiness to implement an evidence-based program is a key component of the exploration stage of implementation. The area of developing leaders calculated at the highest of other categories at 58% in the occasional support and frequent support areas. The last two areas of developing community partnerships and securing outside resources were identical. Both categories, highest area of selection were no support, very little support and occasional support totaling 86.84%.

Findings Research Question Three

Respondents were asked about the leadership practices used to implement MTSS. The questions were grouped in to the areas of formation and selection of the MTSS team, and the functionality of the team within the MTSS framework. Secondly, survey questions were designed to inquire about the leadership practices and the personal approach taken by the site leader.

Formation of the leadership team within a rural school setting requires the leader to balance the capacity of the individual participating on the team, the amount of other school related activities the staff member maintains at the school and the willingness to take on a new approach to student intervention. Table 14 outlines how the site leader requires the members of the leadership team.

Respondents could elect to write in a fill in box on the survey if they selected other. Two of the respondents indicated an approach called "voluntold", where the administrator might ask the person and not appoint them. A third respondent

indicated the traditional leadership team simply assumed the responsibilities of

MTSS.

Table 14

MTSS Leadership Team Appointment

Volunteer	43.59%	17
Appointed	43.59%	17
Currently, no team	2.56%	1
Other	10.26%	4

The follow up question to staff member participation, respondents were asked to

describe the relationship between the site leader and the leadership team. Respondents

were asked to rate a statement about the relationship and select if the statement was

true or false. In general, respondents indicated that they had a strong relationship with

the leadership team (96%), that the team collaborates (100%), and that the team is

functional (93%).

To address the functionality of the team, respondents were asked if the team was

adaptive or reactive to the notion of change and adversity as they navigate the path of

implementation of MTSS. Adaptive leadership is a main integration component the

implementation leadership driver. The adaptability of the team is measured by the

team's ability to navigate complex problems and identify sources of conflict resulting

from diverse view point and opinions. When asked about the adaptive and reactive

nature of the leadership team, 66.67% or 22 of 33 respondents indicated that the team

was adaptive, "my team identifies issues and adapts to make the necessary changes"

to implementation problems. The last adaptive survey question was a fill in question

where respondents were asked the following question. Please comment on how effective your leadership team is at mitigating the sources of conflict resulting the MTSS delivery of services. 11 of the 20 responses indicated in some way that the team was in the initial or beginning stages of effectively resolving conflict. One statement that stood out from the others addressed the cultural barriers and staff inadaptability, "The leadership team is working hard to help the collective mind to shift. We have a very strong contingent that believes kids who don' "fit" should be placed in an alternative setting".

The second area of leadership was the approach taken by the leader. In the framework of implementation science this is identified as the technical side of implementation.

When asked if MTSS would continue at the site if the administrator left, the main response was yes, MTSS would continue at 68.75%. Respondents were allowed to fill in a comment in this portion of the survey and one of the fill in responses was extremely telling of the challenges faced by rural school leaders. "I'm working on making MTSS a part of the culture but there's been a revolving door of admin so I have to be realistic. One of my predecessors implemented PBIS only to have it fall into disuse within a few years of her departure".

When asked if the leader felt that they had the ability to clearly communicate the concepts of MTSS for all staff to implement tiered levels of student support, 87.5% said yes. One of the comments within this question contained a statement that the

administrator felt they were the cheer leader leading the charge and that without the push from the top the movement would lose momentum.

Administrators were asked to indicate the leadership styles identified as the strongest in mentoring others related to site based MTSS. The areas rated the highest were, being a good listener, helping others succeed, leading by example, caring, and shared leadership. The practice that scored the lowest, .41% was authoritative leadership.

Respondents were asked, as the site level administrator, I communicate the best practices to support the school staff's understanding about how to implement MTSS. The top response was that leaders frequently communicate this message at 56.25 %. A follow up question asked the same message but about the ability to communicate the vision to implement MTSS to the staff. The responses did not favor one area and was split between the selections of frequently communicated, 40% and occasionally communicated at 43.33%.

The next focus area of leadership that was surveyed asked about the administrative preparation. Just as staff requires capacity building so does the administration. California administrators have multiple ways to receive an administrative credential. Some administrators come from a university-based preparation program while others have passed an administrative assessment to receive their credential. It is assumed that in most cases administrators have not received training on the implementation of evidence-based programs or MTSS prior to the

receiving a MTSS grant. Respondents were asked about the amount of training they

have received to implement MTSS.

The responses listed above seem evenly split when combined. By adding the

responses of rarely and occasionally the total percentage is 51.62%. By adding the top

two of frequently and always, the total percentage is 48.38%.

Table 15

Administrative Training to Implement MTSS

Response	Percent	Number
Never	0%	0
Rarely	9.68%	3
Occasionally	41.94%	13
Frequently	35.48%	11
Always	12.90%	4

In order to implement MTSS at the local site the leaders and leadership teams

need to have the capacity to understand the complexities of MTSS and how to

navigate the implementation of the program in the unique ways necessary at the site.

Leaders need to train other staff member and understand how to implement evidence-

based programs that are effective and sustainable. The totals in table 16, indicate that

only half the participants surveyed have needed training to do so.

Qualitative Data Interviews

The second phase of data collection included participant interviews. At the end of

the survey respondents were asked if they were willing to participate in a voluntary

interview with the researcher. Respondents were asked to confirm by listing a phone

number or email so the researcher could contact them with the follow up interview.

Seven survey participants indicated that they were willing to participate in the interview. The researcher was able to conduct 3 total interviews after multiple requests. The interviews were arranged via email and consent was obtained. The prearranged interviews were conducted over the telephone and digitally recorded by the researcher. The digital recordings were then transcribed and secured electronically on a password sensitive computer.

Interview Process

Interviews were conducted over the phone and recorded electronically. Files were transcribed into hard copies and secured. The interview protocol consisted of 15 questions and each interview lasted approximately 12 minutes. The three interviews provided very different perspectives on the implementation of MTSS. Two interview participants were 20-year veteran administrators who were both tasked to manage more than one school site. The third participant was the Principal of a school site and the MTSS coordinator for the district. All interview participants were knowledgeable about MTSS and connected with coordinating site level MTSS. All three participants were in the early stages of implementation of MTSS and all three had participated in professional development related to MTSS. Lastly, all participants have prior experience with the concept of tiered levels of student support either through RTI or PBIS. During the interviews the researcher and the participants shared in a professional conversation. At times, the participants asked the researcher direct questions as the related to the researcher's school experience, clarification of MTSS acronyms, and MTSS training.

Data Analysis

The process used for the data analysis of the interview transcripts was developed during the review of data. Consistent themes began to emerge from the data that were consistent with all three interviews. The researcher read the interviews in their entirety and began to note specific items. A second read-through of the transcripts refined the themes into seven primary topics. The first was the enrollment of the three participant's sites. There were different responses from the participants based upon the size of the school and the size of the staff. The second theme was PBIS. All three participants discussed PBIS and all three referred to PBIS as the system for addressing student behavior. The third theme was Leadership. All three participants discussed leadership and the strategies used for the implementation of MTSS, managing staff and tactics for next steps in the process. The fourth theme was social and behavioral health. The researcher included four question related to the assessment of student needs and staff responses related to the social and behavioral needs of students. The fifth theme was implementation. All three participants were at the early stages of implementing MTSS and all three were using other related programs to help guide the implementation of MTSS. The sixth theme was training and support. All three participants had participated in professional development related to MTSS and all three were in charge of implementing the program at the site or within the district as a whole. The last and most interesting theme to emerge was context. This theme will be discussed further in chapter 5.

Findings RQ 1: How are small/rural school staff members assessing the social and behavioral intervention needs of all students?

Respondents were asked if the school had a system to assess the social and behavioral needs of students or some way to evaluate students. The first interview participate indicated that they did not. The participant went on the say that the school was exploring the idea of assessing students but that it was difficult. The challenge was in taking a specific assessment and making it more comprehensive, making it more broad. Combined with making the assessment more meaningful and not just a general survey for students. The participant went on to say that it was difficult for a mainstream classroom teacher to conduct this type of assessment and that the school was asking the county office of education for a tool and they have not seen anything yet. The participant then said that the school was reluctant to use the California Healthy kids survey due to the questions contained within the survey. The fear was that some questions in the survey would introduce inappropriate topics to students who were attending an isolated school.

The second participant was asked the same question, if the school had system to assess the social and behavioral needs of students or some way to evaluate students. The participant said that the school just started using the SABERS screener. The SABERS is a brief tool supported by research for use in universal screening for behavioral and emotional risk. The measure falls within a broad class of highly efficient tools, suitable for teacher use in evaluating and rating all students on common behavioral criteria (Severson, H. H., Walker, H. M., Hope-Doolittle, J.,

Kratochwill, T. R., & Gresham,F. M. 2007). The participant said that the school

found the screener on-line and it was recommended that the screen be administered

three times a year but that the school did not have the capacity to do that with every

child. Lastly, the participant said that the school was tweaking the assessment to meet

the schools need and that the school was at 50% participation in using the screener.

The last participant indicated that the assessments for students emotional and

behavioral needs were conducted in the area special education but not used in the

mainstream classroom. The participant mentioned that the support structure in tier

one were using restorative conferences. The restorative conference, is at the core of

restorative practices, is a structured and facilitated dialogue intended to provide the

opportunity for the one who caused the harm as well as the impacted parties to safely

address and resolve the harms caused during a specific incident Gregory, A.,

Clawson, K., Davis, A., & Gerewitz, J. (2016). Restorative practices are often used to

address students challenging behavior or student conflict.

Findings RQ 2. What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges?

In addressing the challenges faced by school leaders, the first participant began

talking about the implementation of PBIS. The participant said that the prior principal

had been trained and used PBIS but now not all the school staff had received the

training. The challenge was communication and for all staff to be using the same

language when discussing discipline and positive intervention. The second challenge

was the process of being self-reflective on policies and procedures when

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implementing MTSS. The participant said this was a challenge due to the size and ability of the staff to collaborate. The last challenge the participant mentioned was the training and the capacity to take the professional development back to the school and implement the program. The participant shared that in the training modules other districts had specialists, administrators, and support personnel to take on components of the MTSS process. This disparity in size and staff members as compared to other districts created a sense of taking the information and using the information to meet the unique needs of the school rather than the program goals of the professional development.

The second participant began discussing the challenge of implementing the MTSS framework across multiple school sites. The different schools in the area were in different stages of implementation and as the administrator, the participant highlighted the challenge across sites. The participant talked about the lack of structure to provide tier two interventions and more structure was needed. Lastly, the participant talked about the challenge of staffing. They discussed that implementing the framework was a big task and there were not enough people to do the job. They talked about staff members taking on yearbook and graduation and could not take another responsibility on and do a good job at it.

The third participant began by talking about how MTSS was a challenge to understand due to the multiple aspects being discussed in the training. The participant attended one of the large MTSS conferences and felt overwhelmed by the volume of information. The participant talked about acquiring the MTSS vocabulary and the

need to understand the terminology and be able to communication with other individuals about what MTSS is. The second challenge was with staff members and being able to embed the policies and procedures across the school site and to manage the push back from staff members. The last challenge the participant mentioned was the ability to use the universal screening tool with all student. The participant was challenged with locating an effective tool and the staff's ability to use the tool with fidelity.

Findings for RQ 3. What leadership practices are used by site level administrators to implement MTSS in small/rural school districts?

The first participant began by talking about intention. Why was the school interested in MTSS in the first place? The answer was that the school was looking at their Local Control Accountability Plan, LCAP, and trying to address school climate, use PBIS and address suspension rates. MTSS provided them with a framework to address these items. It was the leader who took the initiative to apply for the grant and to determine how to implement MTSS to the school's needs. The school's goal was ultimately to use PBIS as the system to change policy and procedure and the leader was the one to determine the path. The participant said that they needed to use the information and the training time to their advantage and that there was an appreciation for the ability to use only what was needed for their site and not responsible for the structured implementation of MTSS from the professional development providers.

The second participant talked about the leadership challenge of being one administrator and managing three schools. The challenge was that each school was at a different place with programs and implementation stages. This challenge was compounded due to the level of school as well. This administrator was in charge of the elementary level through high school. The next challenge for the leader was the professional development of MTSS. The participant said what you do in a big school in Kansa City is not the same for what you do for a little school in a rural county. The approach this participant used was to look at the big picture and determine what can be done this year. The following challenge was with personnel. Being able to determine who has the ability to take on a leadership role with MTSS alongside of the other responsibilities staff is responsible for. What staff member has the respect of staff and the communication skills to help build capacity and insure fidelity of the program. The last approach the participant talked about was the strategy of phasing in the implementation with different staff members. Each year the participant was sending different staff members to the training so that more individuals were familiar with the professional development being provided.

The third participant used three different data sets to explain the responses. Using the FIA, the SWIFT Fidelity Integrity Assessment, SABERS screener, and through the review of behavioral data from the PBIS system. It was evident that this participant used data to determine the integrity of the programs and to determine the next steps. The next item that the participant discussed was the analysis of the staff. Again using data, the participant determined the items that was causes of frustration

with staff members. The participant walked the staff through a process to determine a root cause of the problem and then collectively planned an action to address the problem. The participant used the root cause as a stepping stone, a selling point with the staff to create buy in and support. The participant was able to reflect on the approach with staff was much like the tiered intervention used for students. Some staff members needs required a tier two or tier three intervention and that not approach was going to work with the entire staff. Lastly, the participant talked about creating building a creating a positive culture with staff. The two main topics used for this was staff acknowledgement and staff incentive.

Summary

The study had two purposes, first was to answer the question; How do small rural schools and districts implement evidence-based multi-tiered programs such as MTSS? Secondly, with limited resources and organizational support in rural schools, the issues of implementing MTSS is disconnected between what the research says, and the professional development being provided to all MTSS schools. With the current focus on building a comprehensive system of blending academic intervention with social and behavioral supports, MTSS offers a framework to do so. However, implementing a complex system like MTSS in a rural school setting can be difficult to do. The data reflects that schools are in the early implementation phase of staff capacity, social and behavioral measures and solutions, and leadership development. Using implementation science, it would require site leadership to systematically

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monitor implementation and use data to make improvements until fidelity and project

outcomes are reached (McIntosh & Goodman, 2016).

In chapter 5 the findings will be used to summarize rural school implementation

of MTSS and the implications for rural schools participating in this practice and

suggestions for future research. In chapter 5, several recommendations will be made

for using assessments to meet the needs of students for social and behavioral support,

leadership practices and navigating the challenges faced by rural schools with the

implementation of MTSS.

Chapter Five
Implications Recommendations and Conclusions

The purpose of this mixed method survey and interview-based research study was to examine more closely how California rural schools are implementing MTSS. Specifically, the intent of the research study was to answer four questions: (1) How are small/rural school staff members assessing the social and behavioral intervention needs of all students? (2) What are the challenges faced by small/rural school leaders with the implementation of MTSS and how do they confront those challenges? (3) What leadership practices are used by site level administrators to implement MTSS in small/rural school districts? (4) Are there any differences associated with the implementation of MTSS with schools or district demographics?

The problem and main purpose of the research study was to investigate the leadership practices that are used to implement MTSS in small rural schools in California. Secondly, it was to identify the leadership challenges and practices faced by rural school leaders charged with implementing MTSS. Third, how rural schools assess and respond to the social and behavioral needs of students. Lastly, will the demographics of the schools effect the how the rural schools respond to challenges, leadership practices and meeting the social behavioral needs of students.

The goal of the research was to explore how rural California schools who are in the early stages of implementing MTSS dedicated resources and the management of leadership was used integrate MTSS into schools. Through the lens of implementation science and the use of implementation drivers was used to examine

the implementation of MTSS. Secondly, it was useful to understand how small/rural schools are navigating the challenges of implementing evidenced-based programs such as MTSS. It was apparent that there was a gap in the literature of the knowledge relating to how rural schools and rural school leaders were implementing the organization change of MTSS and how rural schools were navigating this task. The implementation science framework provided a scientific approach to answer the goal of the research.

Demographic Data

The survey responses indicated that ninety four percent of the schools had an enrollment size of over one hundred students. Only six percent indicated that the enrollment size was below one hundred. In terms of school size, the survey respondents indicated that eighty five percent had between one and three schools in the district. Only fifteen percent indicate the size of the district was over three schools. The number of staff members reported by the respondents indicated that seventy two percent of the school had a staffing size of over twenty staff members. Twenty eight percent of schools indicated that the staff size was under twenty. In terms of the experience of the school administrator, eighty one percent indicated that they had more than six years of experience. One respondent was a first-year administrator and a second respondent indicate that they had three years or least of experience. The overall interpretation of the demographic data indicated that the school district size was two to three schools with an enrollment size over two hundred students and a staff size over twenty. The demographic data on the experience level

of the administrator is the most disproportionate. The National Center on Education

Statistics (NCES) report on Rural education, 2017, indicated that most administrators

who began the ten-year study were not employed in the same position at the

conclusion of the study. Rural schools face challenges recruiting educators because of

characteristics specific to rural areas-including geographic isolation, access to school

resources and duties for educators outside the classroom (Rosenberg, L.,

Christianson, M. D., & Angus, M. H., 2015). The nature of the data is inconstant with

the national data but is consistent with the findings of Jacobson. For school

administration, often times rural superintendent and principals seemed to be relegated

to the bottom rung of the administrative farm system (Jacobson, 1988). Rural districts

often endure rapid and frequent turnover among superintendents in their service

(Brant & Grady, 1989; Chance & Capps, 1992; Grady & Bryant, 1991; Wilson &

Heim, 1985). Yet despite these statistics the implementation of an evidence-based

program like MTSS requires a competent leader and possibly one that has the

leadership tools necessary to implement and monitor a multi-systems approach.

Interpretations of Research Question One

The survey and interview respondents provided information about addressing the

social and behavioral needs of students. In the survey responses, the tools used by

staff to monitor both the academic and social behavioral needs of students were

developed by the district or school themselves. Seventy one percent stated that the

tools they were using were either developed by the school, Data trackers developed

by the school or self-designed google sheets. When asked if the needs of student were

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being met the most popular responses were sometimes and often at ninety percent. A conflicting question may have provided insight to the idea that schools do not have a measure to evaluate or measure the social and behavioral needs of students. In question four, sixty four percent of respondents stated that the did not have a measure.

The interview data was similar. Two of the interview participants stated that they did not have a specific tool. One participant state that they were using a PBIS assessment in place of a true tool. The third interview participant did mention a specific tools they were just starting to use called SAEBRS. The data indicated that rural schools need a tool to measure and monitor the social and behavioral needs of students. Erin Dowdy (2015) and others recommend implementation of a complete mental health screening approach for students, which addresses prevention and promotion as well as deficits (Dowdy, E., Furlong, M., Raines, T. C., Bovery, B., Kauffman, B., Dever, B. V., Price, M., & Murdock, J., 2015). School psychologists are highlighted in this study as the change agents due to their content knowledge and skill in use of organizational consultation. Due to the limited resources in rural schools the using the expertise of a school psychologist may not be an option and the data indicated that the classroom teacher was most often the adult monitoring student mental health in rural schools.

Development of a tiered level of response for social and emotional learning through an interdisciplinary collaboration is suggested by Maras and others (Maras, M., Thompson, A., Lewis, C., Thornburg, K., & Hawks, J., 2015). This approach combines social and emotional learning assessments integrated with positive

behavioral supports and response to intervention. The authors of this approach suggest that the assessment can build the capacity of stakeholders to plan, implement and evaluate programs. Like the Dowdy approach, this strategy relies upon the expertise of staff members and sup[port personnel such as the school psychologist, school counselors and social workers for the use of SEL assessments. Overall rural schools do not have the tools needed to assess the social and behavioral needs of their students and do not have the resources or personnel with the expertise to do so.

Summary. Rural schools and rural classroom teachers do not have the assessment systems to evaluate and monitor the social and behavioral needs of students. Additionally classroom teachers do not have the training or support to provide data analysis, progress monitoring or universal screen for students social and behavioral needs.

Interpretations of Research Question Two

The survey and interview respondents provided information about addressing the challenges faced rural school leaders with the implementation of MTSS. Secondly what strategies do rural school leaders use to confront those challenges. The first set of survey questions began with asking if the staff members used an assessment system to identify and recommend a tiered level of response for student's needs. Only twenty percent indicated that they were using a standardized assessment tools. Eighty percent were using an assessment developed by the school, an observation by the teacher or the summative state assessment system. A key structural component of the MTSS framework is that a staff has a comprehensive data system to inform decision

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regarding student needs. The data indicated that the assessment as not uniform and are selected by the resources available. The next set of survey questions asked if the staff had the resources to implement MTSS. In this section seventy eight percent said that they either sometimes or seldom had the resources available to implement MTSS. A comparison was analyzed of the staff resources available to the size of the school. The assumption was that if the school size was larger then, the availability of resources was greater. The data indicated that regardless of the school size, 100-200 or over 300 students, the staff seldom had the resources necessary to implement MTSS.

Survey respondents were provided a list of typical challenges for schools and asked to measure the level of challenge. The three top choices for each challenge pointed to a specific barrier for rural schools. The statement of maintaining quality staffing scored the highest in always, frequently and occasionally a challenge at a combined total of seventy-seven percent. Unique to this statement were the number of respondents who selected maintaining quality staffing as always a challenge, higher than any other statement at almost twenty six percent. The challenge of the effective use of financial resources scored highest in frequently, occasionally, and rarely a challenge at a combined total of almost eighty three percent. The challenge in the ability of implementing an evidence-based program, respondents selected the choice of frequently and occasionally a challenge at eighty percent. Creating a positive climate and culture scored in the area of occasionally and rarely a challenge at a combined total of seventy-five percent. The statement of maintaining adequate

facilities a total of twenty-nine respondents selected always, frequently and occasionally at eighty three percent. The statement of using and analyzing student data scored highest in frequently occasionally and rarely a challenge at a combined total of ninety four percent, only two respondents selected always a challenge. The last statement, providing tiered interventions for students, scored the highest in frequency a challenge higher than any other field at fifty-one. Slightly more than half the respondents indicated that this key component of MTSS was frequently a challenge.

The assessment of need and the measure to determine the readiness to implement an evidence-based program is a key component of the exploration stage of implementation. Survey respondents were asked about the ability to build the capacity of the staff to implement MTSS. Eighty six percent of respondents indicated that they could build the capacity of staff. When asked if the leader had the resources needed to meet the needs of staff to implement MTSS, only twenty percent indicated that they often had the resources and zero percent indicated that they always had the resources.

Respondent were asked about the ability to manage resources, and overall the respondents indicated that resource management was a shared control or most control over items such as budget allocation, intervention administration and assignment, and personnel assignment.

In the area of outside support received for addressing the challenges of MTSS, forty five percent of respondents indicated that they received occasional support. In building staff capacity, a key component of the installation stage of implementation,

respondent's selection ranged from no support, thirteen percent, very little support, twenty four percent, occasional support at thirty four percent combining for a total of seventy one percent. One of the interview participant indicated that the only support they had received was in regard to implementing the FIA assessment and the MTSS training through the county office of education. The training portion provided by the county office was mentioned by both other interview participants. Overall the model is emerging that the professional development provided for MTSS is organized through the county offices and provided for a selected portion of staff members. Further training for staff who did not attend the county trainings fall upon the site leadership to build the capacity ensure implementation and to monitor systems change and program progress.

The last two areas of support surveyed inquired about developing community partnerships and securing outside resources which were both identical. The categories, highest area of selection were no support, very little support and occasional support totaling eighty seven percent.

In the analyzation of the qualitative data based upon the interviews with site leaders, selected themes were identified that were consistent with all of the participants. In answering research question number two, one of the themes that developed from analyzation of the interview data was context. Context meaning the independent variables that impact rural school implementation of MTSS. When asking about the challenges that face rural school implementation of MTSS and how

leaders confront those challenges, the context of the leader, the staff, the school, the students are all different.

For example the context of the leader. The amount of administrative experience and where the experience was obtained. If the leader was developed within the rural school setting, the leader may have a different skill set and a different amount of professional development as compared with a leader from an urban area. How much the leader uses data to drive decisions and the fidelity to that process is a variable related to the effective implementation of MTSS.

A second group to consider in context is the students attending the rural school. Student from poverty or from deep poverty provide a different set of challenge. Second language learners and Latino Asian and African American students create multi-ethnic classrooms and levels of diversity are different based upon community, socio-economics and region.

Summary. Key component of MTSS are needed for leaders of rural school to implement school wide MTSS. Leaders need support in providing tiered level interventions in the school site, hiring and maintaining quality staffing, a systems to assess and monitor students' needs, and assistance in implementing evidence-based programs. 80% of respondents in the research survey stated that they seldom had the resources to implement MTSS. Lastly, one of the key pillars outlined in the framework of MTSS is a comprehensive data system which is lacking in rural schools. Not just the data systems but the ability to use the system effectively for students and staff.

Interpretations of Research Question Three

The survey and interview respondents provided information about practices used to implement MTSS. Survey data indicated that the selection of the leadership team members was one of two things. The leader appointed members to the team or members volunteered. One of the context themes that emerged from the interview data was how the members were selected to attend the MTSS training. One interview participant mentioned that they had to consider a number of factors when selecting a training participant. This included, how many other responsibilities the person was already doing on the campus. Where the staff member was in life, new baby, ready to retire, ill health.

Survey participants were asked to indicate the leadership styles identified as the strongest in mentoring others related to site based MTSS. The areas rated the highest were, being a good listener, helping others succeed, leading by example, caring, and shared leadership. The practice that scored the lowest, forty one percent was authoritative leadership. From the qualitative data the leadership themes that emerged again based upon context. One participant discussed he need and ability to manage MTSS implementation at different sites and at different level. This practice requires the leader to understand the needs and capacity of different students and staff at different school sites while monitoring the implementation of MTSS at different levels. A second theme was adaptation, bending other programs to meet the needs of the school site based upon what was already in place. An example of this was taking the strategy of restorative practices and changing the questioning to inquire about the

social and emotional needs of students. Or to take a program like MTSS and adapt the system to meet the needs of the school and community.

The next theme that emerged was the ability to communicate the message. Being able to teach others about what MTSS is and how it is applied was a significant step for one participant and a key element to the learning process. The second communication step was communicating MTSS top the staff in context. Meaning framing the message so MTSS did not seem as if it was one more thing to be placed upon the teacher's responsibility list. Understanding the needs of the staff and refining the problem to be addressed was a second approach that was provided. Lastly, being more conscious in communicating positivity, providing incentive and recognition.

In order to implement MTSS at the local site the leaders and leadership teams need to have the capacity to understand the complexities of MTSS and how to navigate the implementation of the program in the unique ways necessary at the site. Leaders need to train other staff member and understand how to implement evidence-based programs that are effective and sustainable. Survey participants were asked about prior training in MTSS and other evidence-based programs, over fifty percent indicated that they rarely or occasionally received the necessary training. All three interview participants indicated that they had received training in tiered levels of support in the different areas of either RTI or PBIS.

The interview participants were asked a separate leadership question from the survey participants. The question was what you would recommend for other rural

schools to implement an effective MTSS system. The first participant first talked

about the challenge that teachers encounter. Understanding what MTSS looks and

sounds like and that MTSS is not something extra. MTSS is going to take a bit more

work up front but the system will save time down the line. Secondly the participant

talked about simplifying the message into conversations that rural school teachers can

appreciate or creating videos that might provide examples in the classroom. Lastly

this participant talked about addressing the challenge of staff members wearing

multiple hats and taking one multiple jobs to run the school and the need for

additional support to implement the program with additional recourses.

The second participant talked about the training opportunities and how

overwhelming the regional or state conferences were for a rural school. Attending the

training created some anxiety and until the participant realized that a rural school

cannot implement the program in the same manner as a larger urban district can with

increased resources. The participant emphasized that the rural school educator needs

to realize that you can only implement what you can for your site and it might take

four or five years to establish a comprehensive program.

The last interview participant talked about the disconnect between what was being

provided in the training and how to communicate and implement the system back at

the school site. The participant talked about being an outlier being disconnected from

the training due to the structure. The training was not designed for the rural school but

for larger school districts with much more resources. The participant stated that the

rural schools need training and strategies that is targeted to the rural school needs.

Summary. School leaders need the tools to implement MTSS which would include professional development for leaders such as, using data to make decisions, implementing evidence-based practices, allocation of staff resources, building staff capacity, and goal establishment. School leaders identified areas of strength such as collaboration, helping other succeed, shared leadership and strong communication as key leadership practices.

Implications

As the use of MTSS becomes more prevalent in California it will be advantageous to ensure that MTSS and other evidence-based programs are implemented effectively. The results of this study contribute to the implementation of MTSS in California rural schools by providing data about the need for a universal screening tools for rural educator, leadership strategies for addressing the barriers of implementation and leadership practices suggested for rural educational leaders. In addition this study provided suggestion for future professional development approaches to meet the needs of rural schools and rural educators.

A theme emerged from the interview and survey data indicating that context influenced the MTSS implementation process. Context meaning the social environment of the organization, and the relationships between individuals in the school setting, and are evident in the patterns of leadership, control, autonomy, implementation and communication (Lochman, 2003). Contextual factors of the school environment, the climate of the organization impact the organizations ability to accept new systems and interventions. It is imperative that the leadership of the

organization has the ability to interpret and understand the context and readiness of different aspects of the organization as MTSS in being implemented. Different groups on the campus may need different levels of intervention to implement the many systems of MTSS. Just as the triangle of tiered levels of intervention is used as a visual graphic of tiered levels of support, that same visual concept can be applied to the stakeholders of the organization. As an example, a new teacher to the field of education may need additional supports to learn the craft of teaching, tier three, a veteran teacher may need less support due to classroom experience and prior professional development, tier one.

As was mentioned in chapter one, Samuels (2016) identified the numerous "moving parts" of MTSS such as universal screening, progress monitoring, shared leadership, problem solving teams, and making data driven decisions as being critical barriers. To accomplish the implementation of MTSS based upon the terms listed above, different aspects of the organization needs varied tiered levels of support. Just as students receive individual intervention to meet their academic and social emotional needs, staff, school leadership, stakeholders require the same approach.

This research adds to the body of literature demonstrating the relationship between the implementation of MTSS and the education use of implementation science. The implications include the use of the implementation science drivers for implementing a complex system like MTSS and other evidence-based programs. Full implementation and fidelity may be best achieved through the use of the

implementation science drivers of competency, organization, and leadership (Fixsen, Blasé, Naoom, & Wallace, 2009).

Recommendations

As the use of MTSS becomes more prevalent in California it will be advantageous to ensure that MTSS and other evidence-based programs are implemented effectively. To develop effective programs that meet the needs of all California schools, educators and policy makers need to understand that the needs of school are different and the context of the school makes a difference. Different in funding, systems, capacity building and technology. Rural schools need a voice at the table to highlight the differences and unique needs of their community.

Based upon this study the researcher has made five recommendations that address policy practice and research as they relate to the implementation of MTSS in California rural schools. Recommendations to effectively implement MTSS in California rural schools are in the areas of: 1) A universal screening tool that can be used by classroom teachers to evaluate and measure the social and behavioral needs of students, 2) The context of the school or organization needs to be considered when additional resources are needed for rural schools to implement a comprehensive MTSS system, 3) Training and professional development need to be tailored to meet the unique needs of rural schools, 4) Tiered levels of support are needed for all aspects of the organization to implement MTSS, 5) Rural schools need a voice in developing program and policy at the state level to insure the unique needs of rural school are being considered.

Future research is needed to establish an effective tool to evaluate the needs of students. The tool needs to be user friendly to the classroom teacher and the teacher requires options to recommend for the student based upon the screening tool. Rural schools lack the resources and personnel to properly respond to the social and emotion needs of students. Secondly, teachers are not trained to administer social emotional or behavioral assessments and in rural schools there is no specialist or support person to administer the assessment.

Future research is needed to address the disconnect between what is being provided in the professional development training of MTSS and the practical application of the professional development back at the rural school site. Secondly rural educators need additional support in building staff capacity to implement evidence-based programs, provide on-site support do for staff members to implement MTSS, and support in understanding the context of implementation at their school site.

Lastly, future research is needed to explore how to include rural school education at the state level. Both in policy making and program development. Research is needed for rural education funding allocation and budget development to provide resources to support students and staff in rural education.

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Appendix A: Introductory Email to Rural School sites implementing MTSS

Request for your participation in Research

As a Doctoral student, I am contacting you in an attempt to receive your input regarding Rural school Multi-tiered Systems of Support (MTSS) implementation at your school site. I believe that your input will establish a baseline expert perspective in how schools are navigating the challenges of rural school MTSS and add great value to my research study. I thank you in advance if you are able to complete the relatively short survey as referenced below. My deadline to collect survey information from Rural schools in California is TBD at 11:59 pm. I really appreciate your assistance!

Thanks again!
- John Schilling

Dear Colleague:

I am John Schilling, Superintendent/Principal of Southside School District, emailing

you today as a San Jose State doctoral student to ask for your assistance as a rural school

site in completing my dissertation. The purpose of this mixed method study is to examine

California Rural School implementation of MTSS at the local school level. Your

aggregated responses will guide future research and other rural schools in understanding

the barriers and effective practices with the effective implementation of MTSS in a rural

school setting.

The online survey includes questions regarding your process for the implementation

of MTSS, your policies, systems and structures and the allocation of resources. As a

fellow rural school superintendent, I am well aware of the limitations and challenges we

face in implementing effective MTSS. Any information that could result in your

identification will not be reported and will be kept confidential. There are no identifiable

risks associated with this study.

Additionally, you will have the option of providing your contact information and subsequently may be selected for a brief follow-up telephone interview so that I can better understand the survey data. The former school representatives who piloted the survey instrument assured me that it will require less than 15 minutes of your valuable time to complete.

I have been working very closely with my dissertation chair and committee members on this study. One committee member, Dr. Arnold Danzig, Director of the Educational Leadership Doctoral program at San Jose State has co-authored this request to indicate his support and endorsement of this research project.

Thank you in advance for your assistance to help our fellow rural schools better understand the implementation and structures for effective MTSS systems.

John Schilling
Superintendent/Principal
Southside Elementary School District
Doctoral Candidate, San Jose State University

Appendix B: MTSS Small/Rural School Interview Protocol

Interview #_____

Date_____/_____/_____

Interview Script for Participants

Thank you for your participation in the survey and interview on the integration of MTSS in your district. This is the second of a two-part process for data collection related to this study. The research aims to understand how small rural schools and districts are integrating MTSS systems and procedures. Part B, the interview, will take about 30 minutes to complete and will include questions related to how your district overcame the challenges of implementation. It will include questions about leadership, resources, budget, support systems, metrics, and analysis. The purpose is to help me understand the factors that impact schools and districts who overcame the barriers of integrating MTSS. I would like your permission to record the interview, so I may accurately document the information you provide. If at any time during the interview you want to stop, please let me know. Your answers are confidential, your name, district, and school will not be used in any way in the research paper. The data will be coded and reported in the aggregate and will not be directly attributed to one person. All coding information and interview responses will be deleted upon completion of this research study. Every attempt will be made to insure that there is no foreseeable risk for participation in the survey or interview.

Your participation in this interview is completely voluntary. If at any time you need to stop, take a break, for feel uncomfortable, return to a question, please let me know. There is no compensation for participating and your participation is completely voluntary. Do you have any questions for me before we begin? Then, with your permission we will begin the interview.

Leadership

1.Who is the primary person for MTSS in your school or district? What is their/your job title?

2. What, if any, experience have you/the person had with MTSS or tiered systems of support prior to this year?

3. How much training did you/this person receive prior to the implementation of MTSS and during the process?

4. Based on the response above what types of support would have helped?

5. Do you have a social/behavioral assessment in your school, is it effective and is it used by classroom teachers?

6. In terms of program integration of MTSS, where would you estimate your organizations position, the level of integration? Initiating-progressing-partially integrated, culturally imbedded

7. How did the leadership team build the infrastructure and "buy-in" with the staff to introduce MTSS as a new school or district initiative?

8. What have you learned so far about integrating MTSS in your school/district?

9. What do you think about providing tiered levels of support in a rural school?

10. Do you have the opportunity to problem solve with your support providers outside of the PD days?

12. Do outside support providers help with site implementation?

13. What would you recommend that other small/rural school do to implement an effective MTSS system?

14. Are you using another research-based practice to support the behavioral component in you school or district? Such as PBIS or Restorative Justice? How are those programs going?

15. How can we meet the needs of rural school students in a different way?

16. What do you find to be the greatest barrier faced by schools who are trying to integrate MTSS and the three-tiered approach?

17. Do you see a disconnect between the PD being provided and the practical application of the PD?

Thank you for your participation in the interview. Just a reminder that your answers are confidential, your name, district, nor school will be used in any way in the research paper. The data will be coded and reported in the aggregate and will not be directly attributed to one person. All coding information and interview responses will be deleted upon completion of this research study.

Appendix C: Illustration Authorization Letter

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

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FPG. Advancing knowledge. Enhancing lives.

April 2, 2019

John Schilling, SJSU Doctoral
Candidate San Jose State
University
Educational
Leadership office
One Washington
Square

San Jose, CA 95192

Dear Mr. Schilling,

Permission is granted to use the attached illustration of the implementation drivers triangle with attribution to the National Implementation Research Network in your dissertation. We wish you all the best in your dissertation research.

Sincerely,

Allison Metz, Ph.D.
Director, National Implementation Research
Network Senior Research Scientist, FPG Child
Development Institute Research Professor,
School of Social Work
Adjunct Professor, School of Global
Public Health University of North
Carolina at Chapel Hill
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