ACADEMIC REMEDIATION: A QUALITATIVE CASE STUDY OF HIGH SCHOOL TIER 2 PROGRAMS

by

Tamantha Champion Hurt

Liberty University

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Of the Requirements for the Degree

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APPROVED BY:

Dr. Meredith J. Park, Ed.D., Committee Chair

Dr. Linda F. Gable, Ph.D., Committee Member

ABSTRACT

The purpose of this single case study was to examine the implementation of remediation programs in a rural public high school in Virginia. The theories that guided this study were Bandura's (1997) social cognitive theory and self-efficacy theory as well as Dweck's mindset theory as both theorists helped in identifying teachers' beliefs in their ability to successfully implement remediation programs at the high school level. Surveys were used to identify individual participants based on their current implementation of remediation and their willingness to participate in this case study. Classroom observations were conducted in order to examine the current remediation practices and were then followed by semi-structured interviews that consisted of questions related to teachers' experiences with remediation, their level of preparedness in implementing a remediation program, and their overall perception of the program. Data from the observation and interviews as well as collected documentation were analyzed and categorically coded to identify common themes and patterns. A total of 12 teachers participated in this study from various educational backgrounds. This qualitative study helped to identify teachers' perceived strengths and challenges of implementing a remediation program at the high school level. Four themes were identified during the data analysis including professional development, common planning, mixed ability groups, and time.

Keywords: Response to Intervention (RtI), remediation, Individuals with Disability Education Act (IDEA), Tier 2 remediation, case study

Dedication

I dedicate this to my husband Trey and our two sons Carter and Jackson. My educational career has been a huge part of our lives since shortly after we were married. To my husband, through the many degrees that I have earned and the countless late nights spent sitting at the computer, you have been supportive and encouraging, even when I was not so sure. My journey would not have been possible without you. You have carried a lot of our life's burdens on your own shoulders just to allow me the opportunity to complete my education. For that, I am eternally grateful. I look forward to spending the rest of our lives together making up for the many missed moments we have had to endure. To my sons, it is heartbreaking to know how many opportunities with you I have missed as a result of the time spent in class, studying, and writing. I look at you now and am amazed at the wonderful young men you have both become. I look forward to spending more time with you both and doing things together to make those forever memories. Please never forget that hard work and dedication always pay off and that you can do whatever you set your mind to do, no matter what those dreams may be.

ABSTRACT	3
Dedication	4
List of Abbreviations	10
CHAPTER ONE: INTRODUCTION	11
Overview	11
Background	12
Historical	13
Social	15
Theoretical	16
Situation to Self	17
Problem Statement	18
Purpose Statement	19
Significance of the Study	20
Research Questions	21
Definitions	22
Summary	23
CHAPTER TWO: LITERATURE REVIEW	24
Overview	24
Theoretical Framework	25
Albert Bandura	25
Carol Dweck	31
Related Literature	33

Table of Contents

RtI Background	
High School Remediation Programs	42
RtI Program Implementation	44
Program Support	49
Teachers' Perception of Remediation Programs	
Summary	53
CHAPTER THREE: METHODS	55
Overview	55
Design	55
Research Questions	56
Setting	57
Participants	
Procedures	59
Documentation	61
Interviews	61
Observations	62
The Researcher's Role	62
Data Collection	63
Questionnaires	64
Document Analysis	64
Interviews	64
Observations	67
Data Analysis	68

Coding69
Naturalistic Generalizations
Trustworthiness
Credibility
Dependability and Confirmability70
Transferability71
Ethical Considerations71
Summary72
CHAPTER FOUR: FINDINGS
Overview74
Participants75
English Teacher 175
English Teacher 276
English Teacher 377
English Teacher 4
English Teacher 5
Math Teacher 180
Math Teacher 2
Math Teacher 3
Math Teacher 4
Math Teacher 5
Math Teacher 6
SPED Teacher 184

Results	
Document Review	
Classroom Observation	
Teacher Interviews	
Themes	
Professional Development	
Common Planning	
Mixed Ability Groups	
Time	
Research Question Responses	
Research Question 1	
Research Question 2	
Research Question 3	
Research Question 4	
Summary	
CHAPTER FIVE: CONCLUSION	
Overview	
Summary of Findings	
Discussion	
Theoretical Discussion	
Empirical Discussion	
Implications	
Theoretical Implications	

Empirical Implications	137
Practical Implications	138
Delimitations and Limitations	139
Recommendations for Future Research	141
Summary	141
REFERENCES	144
APPENDICES	154
Appendix A: IRB Approval Letter	154
Appendix B: Informed Consent	155
Appendix C: Demographic Questionnaire	160
Appendix D: Teacher Interview Questions	161
Appendix E: Observation Protocol	162

List of Abbreviations

Academic Achievement (AA)

Adequate Yearly Progress (AYP)

Building Leadership Team (BLT)

Individuals with Disability Education Act (IDEA)

Institutional Review Board (IRB)

Intelligence Quotient (IQ)

No Child Left Behind (NCLB)

Response to Intervention (RtI)

Social Cognitive Theory (SCT)

Standards of Learning (SOL)

Strategic Instruction Model (SIM)

Successful Virginia High School (SVHS)

CHAPTER ONE: INTRODUCTION

Overview

In 2004, the Individuals with Disabilities Education Act (IDEA) was revised to allow for the use of Response to Intervention (RtI) as an alternative to the intelligence quotient (IQ) achievement discrepancy assessment used in identifying students with learning disabilities (Fuchs & Fuchs, 2006). RtI is a multi-tiered intervention program that utilizes student data to identify academic weaknesses and align appropriate instructional resources in order to improve upon student performance. While there is existing research for the use of RtI at the elementary and middle school level, there is limited research that exists related to high schools. Fuchs, Fuchs, & Compton (2010) noted scheduling conflicts and participant compliance as deterrents for effective studies at the high school level. For the purposes of this study, only high school Tier 2 remediation programs will be evaluated.

Successful implementation of RtI depends upon appropriate and effective training through on-going professional development, active participation throughout the process by school and division level instructional leaders, and adequate allocation of necessary resources (Fisher & Frey, 2010). These components are necessary for all tiers of the RtI model, including remediation. The various training components can impact teacher perceptions, which can in turn influence the fidelity of program implementation. As studies indicate a correlation between teacher perception and program fidelity, it is important to analyze teacher perception in order to gauge effective program implementation (Castro-Villarreal, Rodriguez, & Moore, 2014; Wilcox, Murakami-Ramalho, & Urick, 2013). While there are multiple studies examining teachers' perceptions of RtI at the elementary level, further studies are necessary to determine teachers' perceptions of RtI, specifically the strengths and weaknesses of remediation programs at the high school level (Castro-Villarreal et al., 2014; Cowan & Maxwell, 2015; Hurlbut & Tunks, 2016). This study not only addresses an identified gap in the literature, it also gives a voice to teachers implementing remediation at the high school level.

Chapter One of this dissertation provides a background of the most relevant literature related to RtI, remediation, and teacher perceptions of these instructional programs. The situation to self will address my motivation as an educator and an administrator for conducting a case study analyzing high school remediation programs. The problem and purpose statement are also presented along with an examination of the significance of the study. The research questions are outlined and discussed along with definitions to the relevant key terms. This chapter concludes with a summary of the problem and purpose of the case study.

Background

While the process of providing interventions to struggling students is not a new concept, the ability to align specific student data with appropriate intervention methods is (Brown-Chidsey & Steege, 2010). IDEA (2004) revisions introduced the use of RtI as an alternative to the longstanding practices of utilizing the IQ-achievement discrepancy assessment to label students with disabilities. RtI allows educators to assess students' current educational levels, identify specific learning needs, and address those needs with research-based instructional practices. Data-driven assessments are a regular component to the RtI program that allow educators to regularly assess student progress and the need for further interventions. RtI also prevents over-identification of students in need of special education services and allows for a more specialized educational program.

Historical

RtI was formally introduced in the revised IDEA (2004) for states to utilize as an alternative to the IQ-achievement discrepancy assessment; however, the concept dates back to the 1960s when researchers began exploring learning disabilities (Fuchs & Fuchs, 2006; Preston, Wood, & Stecker, 2016). The U.S. Office of Education responded in 1977 with an official definition of learning disabilities that continues to provide guidelines for federal regulations including the 2004 IDEA (Preston et al., 2016). IDEA (2004) guidelines helped to formalize the process by which research-based interventions are utilized to determine level of responsiveness and serves as a component of an evaluation program for special education (Moore-Brown, Montgomery, Bielinski, & Shubin, 2005; Preston et al., 2016). However, the process used to identify students with learning disabilities lacked the ability to identify students early enough to make a difference as students had to demonstrate failure in order to qualify for services. In the early 2000s, educators and educational activists began to examine the current practices and argued that prevention through early identification was the key to helping students, leading to RtI being officially recognized as an option to early identification (Preston et al., 2016).

Through the efforts of multiple researchers, educational specialists, and a variety of stakeholders, the work over the last half century has allowed for a process of multi-tiered interventions to be provided to students in an effort to help struggling learners before possible referral for special education services (Wilcox et al., 2013). While it was originally intended as a proactive measure to help students prior to referral, many school divisions have implemented the program in a proactive effort to help all struggling learners (Fisher & Frey, 2010; Grosche & Volpe, 2013). As school divisions continue to struggle with meeting accreditation benchmarks, RtI has become a valuable tool in helping students make critical gains (Fisher & Frey, 2011).

Brown-Chidsey and Steege (2010) described RtI as a systematic process and highlighted the importance of altering instructional methods to meet individual student needs. Instructional methods and interventions necessary for student success are organized into multiple tiers, typically represented as a triangle, with the bottom of the triangle representing Tier 1 instruction that is provided to all students. Tier 1 instruction consists of high-quality, evidence-based instructional programs provided in the general education classroom (Brown-Chidsey & Steege, 2010; Fisher & Frey, 2010; Grosche & Volpe, 2013). While Tier 1 instruction is provided to all students, approximately 20% will require additional supports. Once identified, the identified subgroup of students is moved to a Tier 2 level of instructional support, represented by the middle section of the triangle. Tier 2 interventions supplement Tier 1 instruction by providing struggling students with targeted remediation (Grosche & Volpe, 2013). It is important to note that the goal of Tier 2 is not merely to remediate a student but rather to provide a system of supports by which the student is able to demonstrate responsiveness to the remediation (Fisher & Frey, 2010). Tier 2 levels of support require educators to regularly monitor student progress through consistent data analysis. When students demonstrate appropriate responsiveness to the intervention, they are moved out of Tier 2 remediation and are again classified as part of the Tier 1 group. Typically 15% of the Tier 2 students will move back to Tier 1 while the remaining 5% of students will be further analyzed for more intensive instructional support in a Tier 3 setting, representing the top of the triangle. Tier 3 consists of individualized interventions for extended time periods and a smaller teacher:student ratio (Castro-Villarreal et al., 2014; Fuchs et al., 2010). For those students who are not responsive to the most intensive level of Tier 3 instructional support, instructional teams must consider alternative options such as continuing to evaluate Tier 3 interventions, implementing an alternative curriculum, considering a more

appropriate educational program or setting for the student, or initiating the special education process to determine appropriate accommodations (Grosche & Volpe, 2013). As data continues to be analyzed, students will move between the tiers based on their level of need.

Social

Teachers are regularly faced with the challenge of providing high-quality instruction to students with a variety of learning needs. Part of that responsibility involves collecting and analyzing data from universal screeners to determine the level of need and identify the necessary interventions that need to be implemented. This level of responsibility necessitates attention to teachers' perceptions of the process of remediation in order to gauge the level of teacher buy-in and identify potential challenges and barriers to implementation (Castro-Villarreal et al., 2014). Analysis of teachers' perceptions will also allow for the identification of an effective RtI framework and help instructional leaders make appropriate program decisions to ensure successful RtI implementation.

While research has focused on teachers' perceptions of RtI implementation at the elementary and middle school levels (Castro-Villarreal et al., 2014; Cowan & Maxwell, 2015; Fuchs et al., 2010; Hurlbut & Tunks, 2016), there is an identified gap in the literature pertaining to studies of RtI at the high school level, specifically the remediation program. Researchers have studied the perceptions of special education teachers in relation to RtI (Gates, Fischetti, & Moody, 2013; Werts & Carpenter, 2013) as well as those perceptions at the elementary level (Cowan & Maxwell, 2015), but there is currently no focused research giving a voice to high school teachers responsible for the delivery of structured remediation programs. As research has benefited educators at the elementary level by providing insight to effective RtI implementation and program development, research at the high school level may provide the same benefits.

Instructional leaders and teachers may examine the findings of this single case study and build upon remediation programs by identifying strengths and challenges noted by teachers who are or have implemented a Tier 2 remediation program at the high school level.

Theoretical

This case study is guided by Albert Bandura's social cognitive theory and self-efficacy theory which will help in further understanding teachers' beliefs and perceptions in their ability to successfully implement remediation programs at the high school level. Perception is defined as the ideas, beliefs, and understandings gained through experience and shaped by perceptual representation and interpretation (Benson, 2017). Bandura (1997) explained that the inability to control certain outcomes creates feelings of anxiety and people are hesitant to move forward in that given area. However, these feelings may also motivate people to improve upon processes in order to create a desirable outcome within their social situation (Bandura, 1997). Fisher and Frey (2010) found that teachers felt ongoing collaboration and communication regarding student achievement to be liberating, allowing them to fully embrace a formal remediation program. Understanding the various responses to program implementation will benefit this research as it will help identify the perceived strengths and challenges of Tier 2 remediation.

Carol Dweck's mindset theory will also be presented in this case study as it examines the mindsets of those involved in program implementation. Dweck's theory correlates with Bandura's theory of self-efficacy in that both examine performance motivation. The mindset theory proposes that people approach any given task with either a fixed mindset or a growth mindset (Dweck, 2008). The specific mindset will determine the attitudes of teachers as they implement remediation programs. By examining the mindsets of those responsible for remediation, it may provide insight as to the level of fidelity of program implementation.

Situation to Self

My motivation for conducting this case study stems from my previous experience in working with RtI and remediation programs at the secondary level. As a previous middle school principal, I was tasked with the responsibility of providing educational experiences for my students that would help prepare them not only for the standardized state assessments but also for the challenges they will face in today's society. Understanding the 21st century skills students will need to possess as well as the demands in a technical workforce is critical to my educational program. With these goals in mind, it is extremely difficult to appropriately plan for the multitude of learning needs that each student presents. Not only are educators responsible for providing the required current instructional programs, they are also responsible for identifying student weaknesses and remediating in those areas. Tier 2 remediation has been one vital component in this process.

Focused remediation programs are not a new concept at any level of education. Teachers often work with students outside of regular instruction in small group settings as well as individually to provide the additional assistance needed to succeed. However, it has been my experience that students' needs are sometimes overlooked, leaving them without the critical help they need. Students are passed on through the system without the interventions necessary to ensure their academic success. In some cases, teachers perceive their remediation programs to be effective but do not use the data to support their ideas. These programs lack the formal structure to qualify as a truly effective remediation.

Remediation programs are of special interest to me, and this single case study serves to examine the intricacy of remediation programs as well as the experiences of those involved. Stake (1995) explained, "Human construction of knowledge appears to begin with sensory experience of external stimuli" (p. 100). As experiences will vary among educators implementing remediation, it is important to recognize these individual realities and report them as they occur. The ontological philosophical assumption that I bring to this case study is that there will be a presence of multiple views related to the implementation of remediation programs. It is important to recognize these individual views and present them in this study in order to better represent the reality of the case (Creswell, 2013). The understanding that a school is made up of many different individuals with very individualistic teaching styles automatically leads me to believe that there will exist a variety of perceptions and beliefs about formal remediation and what constitutes effective implementation. The paradigm that guided me through this study was that of social constructivism as I examined the perceptions of high school teachers and their own interpretations and experiences of remediation. Social constructivism allowed for interpretation of related experiences and allowed me the opportunity to examine the various perceptions that existed among teachers implementing a remediation program in order to better understand their view and opinions (Creswell, 2013).

Problem Statement

Teachers are expected to meet the unique needs of an increasingly diverse group of students, and they are faced with more responsibility in knowing how to effectively implement Tier 2 remediation to struggling learners. One area to be analyzed is teacher perception as it relates to implementing a program with fidelity. There have been several studies examining elementary and middle school teachers' perceptions of RtI (Castro-Villarreal et al., 2014; Cowan & Maxwell, 2015; Fuchs et al., 2010; Hurlbut & Tunks, 2016). Teachers have reported that regular professional development in RtI programs is critical for program success (Castro-Villarreal et al., 2014; Cowan & Maxwell, 2015; Dougherty Stahl, Keane, & Simic, 2012).

There are also noted discrepancies in teacher preparatory programs, specifically a lack of remedial specific training in general education programs as compared to special education programs (Hurlbut & Tunks, 2016). IDEA (2004) highlighted the importance of remediation programs and established the processes for the use of intervention programs and mandates that students receive not only effective research-based instruction and interventions in the general education setting. The problem is the fidelity of Tier 2 remediation implementation at the high school level as noted in the identified gap in the literature related to high school implementation.

Purpose Statement

The purpose of this single case study was to examine the implementation of Tier 2 remediation programs utilized in a small rural public high school. RtI is defined as a multi-tiered level approach to instruction that allows educators to adjust instructional methods in order to fit the individual needs of students. The goal of RtI is to provide high quality content instruction and interventions prior to referral for special services (Fisher & Frey, 2011). The theory guiding this study is Bandura's social cognitive theory and his self-efficacy theory as well as Dweck's mindset theory, which will help in further understanding teachers' mindsets and beliefs in their ability to successfully implement remediation at the high school level. Perception is defined as the personal ideas, beliefs, and understandings gained through experience and shaped by perceptual representation and interpretation (Benson, 2017). Perception is identified as a critical component to program implementation in addressing "buy-in, fidelity concerns, directions and emphases for professional development, and barriers and facilitators from the teacher perspective" (Castro-Villarreal et al., 2014, p. 106). Few studies provide in-depth understanding of the context for remediation programs at the high school level.

Significance of the Study

The following research has empirical significance for educators, educational leaders, and educational researchers by providing transferability as it will build upon the current research to include the perspective of the high school teacher. The lived experiences of those teachers who have implemented remediation at the high school level will be examined and the data gathered will provide a thick, rich description of their experiences. Stake (1995) explained, "Thick description is not complexities objectively described; it is the particular perception of the actors" (p. 42). The research provided seeks to not only fill a gap in the literature but also to give a voice to high school teachers and allow for a deeper understanding of high school remediation programs.

The theoretical significance of examining teachers' perceptions and experiences will help educational leaders and program coordinators understand the impact of teacher perception in effectively implementing Tier 2 remediation programs. Teachers will also benefit by understanding how their beliefs and ideas influence their behavior. The results of this case study may help educators better understand how they can be agents of change as they possess the power to produce positive results (Bandura, 1997). Teachers with a deeper understanding of their role in the remediation process may lead to improvements in current high school program implementation resulting in higher student achievement.

This study has practical significance for educational leaders and program coordinators as the findings build upon the framework of effective implementation of high school remediation programs and identify areas of weakness in program fidelity. Researching high school teachers' perceptions of remediation allows instructional leaders to better understand the challenges faced in program implementation and helps build upon an effective RtI Tier 2 framework. By having an effective framework by which to model a remediation program, educators and educational leaders will be able to better assist students by having a better understanding of the purpose and process by which remediation must be implemented as well as ensuring program sustainability (Fisher & Frey, 2010).

Research Questions

The following research questions were selected to guide the evaluation of the math and reading remediation program at a small rural high school in Virginia.

RQ1: Why were Tier 2 remediation programs implemented at the high school level for math and reading? A case study allows for an in depth investigation of a phenomenon in its natural and real-world setting (Yin, 2018). This question seeks to examine the reasons why a remediation program was selected and clarifies the nature and background of this case study (Yin, 2018). Case studies should seek to provide substance and fully explore the details for a given case.

RQ2: How is remediation conducted at the high school level? Clearly defined guidelines and procedures are necessary for program evaluations, implementation, and sustainability (Barker, Nugent, & Grandgenett, 2014; Oakes, Lane, & Germer, 2014). It is important to examine how these are created and the specific training involved in sharing these with teachers.

RQ3: How successful has remediation been since being implemented, as compared to the previous remediation program (or lack of a remediation program)? There are several areas program administrators should consider during progress monitoring including item analysis of formative and summative assessments (Fisher & Frey, 2010). By regularly evaluating these

areas, administrators can assess the effectiveness of their current programs and make necessary adjustments in order to improve upon practices that may affect student achievement.

RQ4: What are teachers' perceived strengths and weaknesses of the high school remediation program? Even though this study utilizes a case study design, it is important to understand the perceptions of those implementing the program and how those perceptions may or may not affect the level of fidelity in implementation. Information related to perception can further be analyzed to determine practices that may lead to positive perceptions which may further lead to positive program implementation.

Definitions

- 1. *Case Study* "A social science research method, generally used to investigate a contemporary phenomenon in depth and in its real-world context" (Yin, 2018, p. 286).
- 2. *Implementation* "The degree to which educators implement a program as intended by the developers" (Barker et al., 2014, p. 40).
- Individuals with Disability Education Act (IDEA) A law that guides the educational services provided to students with disabilities and provides guidelines for early intervention and special education services (IDEA, 2004).
- 4. *Perception* Ideas, beliefs, and understandings gained through experience and shaped by perceptual representation and interpretation (Benson, 2017).
- Response to Intervention (RtI) a multi-tiered level approach to instruction that allows educators to adjust instructional methods in order to fit the individual needs of students. Students that do not respond to the various intervention methods are moved to higher tiers, which could indicate possible learning disabilities. The goal of RtI is to provide

"high-quality instruction and intervention" prior to referral for special services (Fisher & Frey, 2011).

6. *Self-efficacy* - An individual's belief in what he or she is capable of achieving within a specified context. It is not determined by the number of skills possessed but rather the self-confidence in applying those skills in a given context (Bandura, 1997).

Summary

As teachers are faced with increasing responsibility to meet the multiple learning needs of their students, it is important that they are able to recognize successful implementation practices of instructional programs such as the Tier 2 remediation program. The purpose of this single case study was to examine the implementation of high school remediation programs utilized in a small rural public high school. The theories guiding this study w Bandura's selfefficacy theory and Dweck's mindset theory which helped in further understanding teachers' beliefs in their ability to successfully implement remediation at the high school level. This study fills in a gap in the literature because there is currently no focused research on the implementation of remediation programs at the high school level.

CHAPTER TWO: LITERATURE REVIEW

Overview

This single case study examines the implementation of remediation programs utilized in selected Virginia public high schools. As studies indicate a correlation between teacher perception and program fidelity, there is a need to further analyze teacher perceptions in an effort to gauge effective implementation of remediation programs (Castro-Villarreal et al., 2014). Response to Intervention (RtI) is described as a multi-tiered intervention program that utilizes student data to identify weaknesses and align appropriate instructional resources. RtI provides the structural basis for secondary prevention / remediation programs. The success of any program depends upon the level of fidelity in implementation. It is important to understand the role of teacher perception and beliefs as one of many factors that may affect the fidelity of program implementation. As such, this study utilized Bandura's (1997) social cognitive theory (SCT) and self-efficacy theory to better understand the factors that influence teacher motivation and behavior. Dweck's mindset theory was also examined to better understand how fixed and growth mindsets can affect a teacher's ability to effectively implement a successful remediation program. Other components identified for successful program implementation include on-going professional development, active leadership participation, and appropriate allocation of resources. It is important that educational leaders and program coordinators understand the relational aspect of these components as program implementation is directly impacted by teacher perception, which can be shaped through increased program support provided during training and implementation. Further studies are necessary to determine teacher perceptions in relation to their preparedness in providing remediation programs at the high school level. Chapter Two will examine the theories guiding this research, literature related to the background of RtI and high school remediation programs, and the perceptions of teachers towards remediation programs.

Theoretical Framework

When examining the implementation of instructional programs, such as secondary prevention / remediation programs, and the level of fidelity applied to implementation, it is important to analyze the beliefs and perceptions of those responsible for a given program. In order to conduct a meaningful case study of high school remediation programs and gain a deeper understanding of functionality of these programs, it is necessary to examine theories related to motivation, social learning, and self-efficacy (Creswell, 2013). Several theories have been presented that help guide this research. Self-efficacy, social cognitive, and mindset theories can have a direct impact on instructional programs through the personal beliefs of those responsible for implementation. These theories, presented by Albert Bandura and Carol Dweck, provide a basis for understanding social learning behaviors as they apply to adults implementing new instructional programs. It is important for educational leaders to carefully analyze these factors to ensure that the results with any given program are meeting the desired expectations. This study examined teachers' perceptions as they relate to the implementation of remediation programs at the high school level; in order to best understand teachers' beliefs and perceptions, an in-depth analysis of the program components and implementation procedures is necessary.

Albert Bandura

Albert Bandura's work with social learning went against the common beliefs of his time that learning was a direct result of a stimulus response. Bandura theorized that learning actually occurred through observation and self-evaluation (Bandura, 1977; Pajares, 2004; Sheehy, 2004). Described as a cyclical process, Bandura believed behavior influenced the environment which in turn further influenced behavior, and he established a strong connection between the environment, behavior, and psychological processes (Bandura, 1991; Pajares, 2004; Sheehy, 2004). It was Bandura's belief that these three elements influenced a person's level of motivation. His social learning theory analyzed the relationship between cognition and behavior and later evolved into the social cognitive theory (Bandura, 1991; Greene, 2018; Sheehy, 2004). Bandura also theorized about the power of self-efficacy which is determined by one's response to self-evaluation as it directly impacts his or her level of motivation (Bandura, 1991; Pajares, 2004; Sheehy, 2004). Both theories offer critical insight into the process of education as it pertains not only to student learning but also to the behaviors of teachers and educational leaders during program implementation. As educational leaders begin to explore new instructional programs, they must take into account the components identified by Bandura as critical elements of learning and motivation. A deeper understanding of these components will help educational leaders plan for and create a program that raises efficacy expectations to create a desired behavior that will meet the program goals (Bandura, 1977).

Social cognitive theory. Bandura's (1991) work in examining social cognition helps with understanding behavioral motivation. In order to best understand how the self-efficacy theory relates to program implementation, it is important to first analyze the social cognitive theory (SCT), which identifies cognition, behavior, and the environment as three factors in psychosocial functioning (Bandura, 1991; Greene, 2018; Sheehy, 2004). SCT provides insight as to how people are motivated through external and internal information (Bandura, 1991; Greene, 2018; Pajares, 2004; Sheehy, 2004). While SCT focuses on the three facets of cognition, behavior, and the environment, it is important to understand each factor and how they can influence one another.

Personal factors include thought, or cognitions, which occur before and after any given behavior. SCT emphasizes the belief that personal motivation and actions are a direct result of forethought, symbolic reasoning, and self-reflection (Bandura, 1991; Greene, 2018; Pajares, 2004). Forethought involves consideration of the given contextual factors within the environment which, in turn, initiates the resulting behavior. Careful consideration must be given to this forethought during the initial planning phase as teachers' perceptions regarding the need for the program and the potential benefits will play a critical role in their acceptance of the change. Reflection on the behavior as well as the response to that behavior will also influence future behaviors that will further change the environment (Bandura, 1991; Fisher & Frey, 2010; Greene, 2018). Taking into account the experiences that teachers may or may not have had with previous remediation programs will allow educational leaders to identify potentially negative preconceived notions about the current program and work with teachers to build a positive mindset toward the program and improve upon self-reflection skills (Danielson, 2009). It is important for educational leaders to consider these factors throughout the implementation phase of any academic program as the information given to teachers will play a critical role in determining the level of success of the program.

During the initial planning phase of program implementation, administrators should take into consideration the information that is shared with faculty and staff. Initial information will provide environmental cues necessary for forethought and can lead to impulsive behaviors when teachers do not utilize the information accordingly (Greene, 2018; Wilcox et al., 2013). In addition to an extensive examination of student data, initial planning of a remediation program also requires administrators to be fully aware of the program components and to understand their teachers' current knowledge of the program (Fisher & Frey, 2010; Hurlbut & Tunks, 2016). Thorough planning will allow administration to create an effective plan of implementation and provide teachers with the necessary level of support needed to successfully implement a remediation program (Fisher & Frey, 2010; O'Connor & Freeman, 2012)

Teachers may also exhibit impulsive behavior as a result of the environmental cues experienced through vicarious experiences (Bandura, 1977; Greene, 2018). To avoid impulsive behavior, communication is vital during the initial stages of program implementation. It is important that administrators discuss the underlying need for the program as well as the program details with teachers and gain an understanding of the preconceived notions teachers may have regarding remediation programs. The same process would be beneficial during program evaluation to best understand changes that may need to occur in order to successfully move forward with the program. The process of self-regulation helps teachers identify with their thought processes which in turn helps them improve upon their performance by making appropriate changes to their behaviors (Bandura, 1991; Danielson, 2009; Pajares, 2004). Greene further explained the process of self-regulation as it pertains to behavioral modifications motivated by the desire to achieve specific goals (2018). When trying to improve upon selfregulation behaviors, research shows the importance of recognizing and maintaining a positive and motivating environment (Bandura, 1991; Greene, 2015).

It is important for educational leaders to recognize how motivational factors may affect the implementation of programs within their schools or school districts. As administrators conduct program evaluations, they can learn valuable information regarding the factors that influence people in their actions and behaviors, specifically as it relates to the fidelity of program implementation. For the purposes of this research, it is important to analyze the thoughts and beliefs teachers have regarding remediation programs and what motivational factors influence them in their work. It is also important to analyze the initial process of implementing the program including an analysis of the information and communication provided to teachers and their responses.

Self-efficacy theory. Self-efficacy theory is an extension of SCT as it lies within the cognitive domain and influences people's beliefs through their thought processes (Bandura, 1991; Carlson, 1997; Phan & Ngu, 2014). Bandura (1997) described the self-efficacy theory as a method of understanding the diversity of individuals' thought processes and motivational factors and explained that it "treats the efficacy belief system not as an omnibus trait but as a differentiated set of self-beliefs linked to distinct realms of functioning" (p. 36). Self-efficacy does not focus on the totality of one's skill set but rather on the individual's overall perception or level of confidence in his or her own ability to meet expectations that often serves as a determining factor in their performance (Bandura, 2012; Greene, 2018; Maddux, 1995; Phan & Ngu, 2014). Low self-efficacy leads to a debilitating belief that obstacles cannot be overcome, whereas high self-efficacy results in increased motivation to be successful when faced with a challenge (Bandura, 1977, 2012; Greene, 2018). A person's decision to attempt a new skill, the amount of effort they put into their actions and their perceived level of control over their environment are all related to their level of self-efficacy (Bandura, 1977, 2012; Greene, 2018). Confidence in one's ability will lead to persistence in effort as a higher sense of self-efficacy leads to better time management, greater personal persistence and resilience, and great problemsolving ability (Bandura, 2012; Greene, 2018; Phan & Ngu, 2014).

With an understanding of the concept of self-efficacy, it is important to also understand its origins and how it can be positively developed. Self-efficacy is initially developed through personal perceptions of past experiences (Bandura, 1977; Greene, 2018; Zimmerman, 2000). Greene (2018) noted that while successful past experiences strongly influence one's perceptions, it is the recognition of a personal success resulting from one's own actions that will motivate one to repeat that behavior. Self-efficacy theory describes people as having an active role in making decisions based on personal memories and how their experiences motivate their behaviors (Bandura, 1991; Pajares, 2004; Sheehy, 2004). Bandura (1977) presented four major sources that lead to self-efficacy: performance accomplishments, vicarious experiences, verbal persuasion, and physiological states. It is through these various sources of information that a person's level of self-efficacy takes shape.

Performance accomplishments are a result of the personal mastery of given tasks, and successful mastery is one of the most influential of the four sources (Bandura, 1977, 1991; Phan & Ngu, 2014). Successful mastery increases positive self-efficacy whereas negative experiences and failures diminish self-efficacy. However, if a person builds strong self-efficacy beliefs, he or she is better able to handle failures and demonstrate increased persistence and motivation to succeed (Bandura, 1977). Positive self-efficacy is a result of deliberate and dialectical thinking. Teachers who exhibit deliberate thinking are purposeful in their data collection and seek to better understand a given situation (Danielson, 2008, 2009). Dialectical thinkers work to better understand a given problem and seek to identify solutions to correct it (Danielson, 2008, 2009). It is through performance evaluation that a person initiates an appraisal of his or her competence to complete a task (Bandura, 1977; Danielson, 2008; Phan & Ngu, 2014).

Vicarious experiences and peer persuasion also play a role in social learning and may affect one's level of self-efficacy (Bandura, 1977; Greene, 2018; Phan & Ngu, 2014). Vicarious experiences can impact self-efficacy as a person's expectations can stem from observing the experiences of those around them. Bandura (1977) explained that observing others successfully completing difficult or challenging tasks can lead to increased persistence and determination by the observers as their desire to comparatively succeed increases. The tenet of vicarious experiences can be positive or negative depending on the subject that is being observed. In the case of a Tier 2 remediation program, if a teacher observes another teacher struggling with the implementation of remediation and not experiencing positive results, it may result in lowered self-efficacy for the observing teacher. The same holds true with verbal persuasion as teachers can often lead others to a specific mindset simply through suggestion. Program administrators need to be cognizant of the overall opinion of secondary prevention / remediation programs and understand each teacher's background with the program so that they can ensure positive perceptions are being generated. Negativity can damage an instructional program and prevent it from becoming a successful tool in the classroom.

It is also important to understand that the inability to control certain outcomes creates feelings of anxiety, leaving people hesitant to move forward in that given area (Bandura, 1997). However, these feelings may also motivate people to improve upon processes in order to create a desirable outcome within their social situation (Bandura, 1997). Understanding how selfefficacy affects the ability to perform is beneficial to this study as it helps in identifying with teachers' perceptions specific to implementing any remediation program. It also provides valuable insight for instructional leaders in order to effectively evaluate remediation programs and implement successful practices that will support and improve upon teachers' perception and self-efficacy.

Carol Dweck

Carol Dweck is a psychologist, a professor, and an author who has presented overwhelming researching on power of the mindset as it relates to success. Her work revolves around examining the role of ability and intelligence versus the role of the mindset as it pertains to success. Dweck's theory of fixed and growth mindsets correlates with Bandura's theory of self-efficacy in that both affect a person's motivation to perform in a specific manner (Bandura, 1977; Dweck, 2008). As the mindset theory is presented below, it is important to consider how the mindset can affect teachers as they are tasked with implementing remediation programs.

Mindset theory. Dweck (2008) proposed the idea of two types of mindsets: the fixed mindset and the growth mindset. Mindsets can be defined as a person's beliefs in their qualities and abilities (Dweck, 2008, 2015). With a fixed mindset, a person believes their personal characteristics are established and unchanging (Dweck, 2008, 2015; Haimovitz & Dweck, 2017; Hochanadel & Finamore, 2015). The person with the fixed mindset does not see any benefit in considering change and is content with the possibility that they do not need to improve. They will also avoid putting forth much effort towards a challenging task because they want to avoid the feeling and appearance of incompetence (Dweck, 2015). A growth mindset represents the continuous development of qualities and traits through ongoing efforts (Dweck, 2008; Hochanadel & Finamore, 2015; Rau, 2016). Individuals with a growth mindset are aware and accepting of their own faults and seek to develop their abilities in order to improve upon themselves (Dweck, 2015; Haimovitz & Dweck, 2017). Students with a growth mindset focus on learning as their main goal and will put forth the necessary work to succeed (Dweck, 2015). They believe that they can improve and build upon their intelligence as they continue to evolve as problem-solvers (Dweck, 2008; Rau, 2016).

It is important to understand the role of mindsets in education as they can influence the creation of goals, the level of effort put forth in completing tasks, and the personal reactions to challenges (Dweck, 2015; Haimovitz & Dweck, 2017; Hwang, Reyes, & Eccles, 2016). In a

study analyzing the relationship between mindsets and academic achievement, Hwang et al. (2016) found that students with fixed mindsets tend to demonstrate declines in mathematic achievements, especially in lower performing student groups. However, student mindsets are not the only mindsets that can impact academic achievement. Studies have also revealed that student achievement levels are directly impacted by teachers' expectations as the teacher's mindset is reflected through his or her interactions with students (Haimovitz & Dweck, 2017; Rau, 2016). Teachers who possess a fixed mindset are more likely to have a negative impact on implementing educational programs such as a remediation program.

Dweck's theory has a direct impact on this study as teachers' perceptions are closely examined to determine whether they exhibit a fixed mindset or a growth mindset. As previously mentioned, staff buy-in is critical to program implementation and the mindset a teacher possesses can greatly influence the fidelity by which the program is implemented. As it is important to examine the various operational components associated with the implementation of remediation programs, it is equally important to analyze teachers' mindsets to determine how their beliefs and perceptions affect the ability to provide successful instructional interventions.

Related Literature

Student academic achievement continues to be an area of weakness for many school divisions across the United States. In 2004, the Individuals with Disability Education Act (IDEA) was revised to allow for the use of the Response to Intervention (RtI) program as an alternative to the intelligence quotient (IQ) achievement discrepancy assessment used to identify students with learning disabilities (Fuchs & Fuchs, 2006). While RtI is not specifically named as a prescribed intervention method in either IDEA or No Child Left Behind (NCLB), both legislations support the use of research-based instructional methods (Dulaney, 2012; IDEA, 2004; NCLB, 2002). RtI seeks to expand upon instructional differentiation provided in the classroom through the use of flexible groups and data-driven decision making (Fisher & Frey, 2010; Noltemeyer, Boone, & Sansosti, 2014; Tomlinson, 2001). In an effort to improve upon reading and math skills, school divisions are implementing the RtI program as a method of identifying struggling learners and providing multi-tiered and evidence based interventions to address weaknesses (Fisher & Frey, 2010; Hoover & Love, 2011). These intervention programs include Tier 2 remediation in order to provide targeted skill remediation in support of regular classroom instruction. Through the data gathering process, students who demonstrate weaknesses in the Tier 1 core instruction are provided with additional instruction specific to their needs (Fisher & Frey, 2010). Students are never removed from the Tier 1 services but rather have Tier 2 remediation in addition to their core instruction.

While more programs are being added to current curriculum models, teachers are given additional responsibilities to increase student achievement. As teachers provide the primary instruction for Tier 2 remediation, it is important to understand their beliefs and perceptions of the program. In the literature review, the RtI program is described and the process for implementation is explained. The purpose in providing specific program information is to provide the context of how the program should look in comparison to how teachers perceive it to be. Various studies are examined to determine teacher perception of RtI and to identify the challenges and barriers to full implementation.

RtI Background

The implementation of multi-tier interventions has become a priority for school divisions that are struggling to meet state accreditation benchmarks and Adequate Yearly Progress (AYP). Educational leaders work to identify student needs and respond to those needs through a variety of intervention programs. The Response to Intervention (RtI) program is one such intervention program that provides targeted instruction to help struggling learners by providing a multi-tiered approach to learning (Fisher & Frey, 2010; King & Coughlin, 2016). Throughout the intervention process, data are gathered to identify students' specific instructional needs. Fuchs and Vaughn (2012) explained that accurate identification of students through a data gathering process is necessary for successful RtI programs. Instructional data not only helps students improve in math and reading, it also helps in the identification of students who may have special needs. The use of RtI allows for instructional programs to be implemented in the general education classroom and helps to reduce the amount of students incorrectly identified as having a disability (Castro-Villarreal et al., 2014; Fuchs & Fuchs, 2005; Wilcox et al., 2013).

Two different approaches to RtI have been identified as standard protocol and problemsolving approaches (Challender, 2014; King & Coughlin, 2016). The standard protocol approach is prescribed in the three tiers and focuses on procedures, assessments, and interventions to help students stay on track (Challender, 2014; Fisher & Frey, 2010; King & Coughlin, 2016). The problem-solving approach allows for a more targeted response initiated by a team of educators analyzing student data to determine the necessary educational response (Challender, 2014; King & Coughlin, 2016). However, targeted approaches are less likely to be used as they are very time consuming and require a tremendous amount of resources when there are multiple students involved (Challender, 2014; King & Coughlin, 2016). King and Coughlin (2016) also note that the problem-solving approach requires more resources because teachers are trained to provide services specific to each student's needs where the standard protocol approach seeks to meet the needs of entire groups of students in one setting. The problem-solving approach allows for a more individualized learning experience for the student.

While RtI was originally used to identify students with special academic needs and provide supports as preliminary steps to identification of special education services, it has evolved into a program that can benefit all struggling learners (Castro-Villarreal et al., 2014; Fisher & Frey, 2010; King & Coughlin, 2016). Data are used to identify students' progress and place them in the appropriate tier for additional instruction. The use of tiered supports allows educators to identify appropriate interventions based on student data (Castro-Villarreal et al., 2014; Fisher & Frey, 2010; King & Coughlin, 2016). While 20% of students are typically identified for Tier 2 supports, approximately 5% will require additional assistance and are placed in the Tier 3 category (Fisher & Frey, 2010; Almalki & Abaoud, 2015). According to Almalki and Abaoud (2015), the Tier 3 category is typically representative of those with identified disabilities and classified within a special education program. The benefit of using RtI as a model for identification of special needs is that it allows for early identification and instructional intervention of students at-risk rather than waiting for students to academically fail and fall further behind their peers. It also reduces biases that may exist in current identification models, and it allows for a student-centered program (Preston et al., 2016; Vaughn & Fuchs, 2003).

While RtI is used to address the instructional needs of students with disabilities, it also serves as a supplementary intervention for students not identified as having a disability and who do not respond to Tier 1 or Tier 2 interventions but continue to struggle academically and fall behind (Castro-Villarreal et al., 2014; Fuchs & Fuchs, 2005; Grosche & Volpe, 2013). Grosche and Volpe (2013) identify the main ideas of RtI as a proactive, multi-tiered approach that utilizes student data to identify academic and behavioral needs and respond with prescribed, evidencebased interventions.
Research has also identified frameworks of effective RtI programs, which consist of the following:

(a) dual focus on school-level variables and student-level variables, (b) coordination of school-wide prevention and intervention supports, (c) universal screening and progress monitoring as part of ongoing data-based decision-making, (d) implementation of evidence-based practices, (e) leadership from administration and school teams, and (f) on-going professional development. (Castro-Villarreal et al., 2014, p. 105)
RtI focuses on the two content areas of reading and math, but the framework utilized and described above can be used in other content areas.

Tier 1 instruction. Tier 1 of the RtI model refers to the use of the regular core curricula provided to all students in the general education classroom (Fisher & Frey, 2010; Hoover & Love, 2011). Teachers provide instruction in the content area and regularly analyze student data to determine if deficits in student learning exist. Students with identified weaknesses are closely monitored to determine their level of responsiveness to core instruction as it is provided in the general education setting (Fisher & Frey, 2010; Fuchs & Fuchs, 2006). The use of high quality, effective instructional methods is intended to meet the needs of all students in the general education classroom and serves as a prerequisite to Tier 2 interventions (Dulaney, 2012; Fuchs & Vaughn, 2012; Noltemeyer et al., 2014). It is critical for teachers to know the best practices in their content area and to have a high level of content knowledge in order to provide high quality instruction to students. It is also important to note that Tier 2 interventions should not serve as the response to inadequate or ineffective teaching methods used in Tier 1 (Fisher & Frey, 2010). It is vital that students receive instruction that is rigorous and differentiated in order to fully meet their needs. However, Fuchs and Vaughn (2012) noted that providing differentiated instruction

can be difficult if a teacher is not equipped with the content knowledge necessary to provide effective instruction. Differentiated instruction also involves a proactive approach to student learning through close analysis of assessment data and the implementation of a blended learning model (Tomlinson, 2001). It is critical that teachers receive appropriate training in analyzing student assessment data and providing the necessary response to help students succeed.

Instructional practices used in the general classroom setting should include researchbased methods that are designed to meet the needs of most students (Fuchs & Fuchs, 2005; Preston et al., 2016). In student-centered classrooms where multiple approaches to learning are provided, typical response to Tier 1 instruction is approximately 75% to 85% (Fisher & Frey, 2010). Students classified as Tier 1 will require no further interventions. Teachers evaluate the progress of students identified as at-risk by using a variety of formal and informal assessments such as curriculum-based measurements, observations, checklists, rubrics, and self-assessments (Fisher & Frey, 2010). Assessment data may indicate further student weaknesses, which would require Tier 2 interventions in order to supplement the core instruction and help the student maintain a level of learning comparative to that of their Tier 1 peers (Mellard, McKnight, & Jordan, 2010).

Tier 2 interventions. Tier 2 intervention groups consist of approximately 10% to 15% of students (Fisher & Frey, 2010). While Tier 1 instruction focuses on meeting the needs of all learners through the use of general instructional strategies, the Tier 2 is a secondary intervention that focuses on supplementing Tier 1 instruction through the use of remediation for students in small group settings (Fisher & Frey, 2010; Grosche & Volpe, 2013). Tier 2 interventions support Tier 1 instruction and allow for targeted remediation to supplement the core instruction (Fuchs & Vaughn, 2012; Hoover & Love, 2011). Students receive remediation for a prescribed

amount of time each week, typically three to five days a week for 20 minutes each session, which can last for up to 20 weeks depending on the student's needs (Fisher & Frey, 2010; Fuchs & Vaughn, 2012).

Identification to determine the need for Tier 2 remediation occurs through the use of a universal screening process and not only identifies students in need of supplemental instruction but also identifies potential weaknesses in the quality of Tier 1 programs (Grosche & Volpe, 2013; Mellard, McKnight, & Woods, 2009). Regular assessment and analysis of student data is critical to the overall RTI process and should not only guide the instructional decisions for appropriate student placement but should also initiate an examination of the curriculum and instructional methods utilized in the general education classroom (Fisher & Frey, 2010; Fuchs & Vaughn, 2012; Moore-Brown et al., 2005). Tier 2 remediation requires additional and more frequent assessments through progress monitoring to determine the level of responsiveness students exhibit to the remediation practices (Castro-Villarreal et al., 2014; Fisher & Frey, 2010; Fuchs & Fuchs, 2006; Mellard et al., 2009). Progress monitoring is particularly important when dealing with students with suspected learning disabilities as documentation is required to monitor the prescribed interventions, the duration of the interventions, and how often students are moved between the tiers (Fuchs & Vaughn, 2012; Mellard et al., 2009). The use of frequent and regular assessments will provide the data necessary to determine the next steps for students. It is not the expectation that students remain in Tier 2 remediation programs permanently but rather in response to their identified needs which will change throughout the school year.

Fisher and Frey (2010) listed several characteristics of effective remedial programs that include instruction from certified teachers, alignment between the remediation and the core instruction, utilization of instructionally-aligned formative assessments, parental engagement,

and continued progress monitoring. NCLB (2002) sets forth the requirement that school divisions employ teachers that are highly qualified in their field. Teachers entering the classroom through alternative entry methods are seldom prepared to face the challenges of classroom management, lesson planning, and instructional implementation. Tricarico and Yendol-Hoppey (2012) noted that teachers need experience in writing lesson plans and implementing those plans during field placement in order to best be prepared for their entry into the classroom. It was also noted that field placements offer teachers the opportunity to apply the knowledge gained in teacher preparation courses so that they are able to make those critical connections between theory and instructional practices (Tricarico & Yendol-Hoppey, 2012). As teachers are afforded the opportunity to gain certification through a variety of methods, it is important to understand how these different certification programs can potentially impact student performance. Goldhaber and Brewer (2000) examined student performance in classrooms where teachers were certified through a variety of methods. The study by Goldhaber and Brewer (2000) revealed that students performed better when they received instruction from teachers with standard certifications as opposed to private school certification or no certification. The finding was also supported through research presented by Clotfelter, Ladd, and Vigdor (2010) which found that students performed higher in math and English when instruction was provided by certified teachers.

Instructional alignment is also a critical component to successful student performance. Fisher and Frey (2010) noted alignment between remedial programs and core content instruction as well as content alignment with instructional assessments as two critical elements in Tier 2 remediation programs. It is important to understand the meaning of instructional alignment and how it relates to student performance. Wonder-McDowell, Reutzel, and Smith (2011) explained that curricular alignment relates to the appropriate selection of core content programs used in conjunction with evidence-based instructional practices. It was also noted that curricular alignment relates to the practices of two or more similar instructional programs working together to teach strategies in sequence to further help students succeed (Wonder-McDowell et al., 2011). Hill, King, Lemons, and Partanen (2012) noted alignment should occur procedurally, philosophically, and instructionally between the tiers. Failure to align core instruction with remedial instruction leaves students at a disadvantage as they struggle to make connections between the core content and the supplemental content (Hill et al., 2012; Wonder-McDowell et al., 2011). School administrators need to ensure that students are presented with instructional programs that provide continuity between classroom instruction and remedial services.

Tier 3 interventions. Students may not respond to Tier 2 remediation for many reasons. In some cases, the appropriate skill was not effectively targeted or the time allotted to strengthen the skill was insufficient (Grosche & Volpe, 2013; Wanzek & Vaughn, 2010). Fisher & Frey (2010) found that 5% to 10% of students typically do not respond to Tier 1 instruction or Tier 2 remediation, making Tier 3 targeted interventions necessary. These intensive interventions further individualize instruction in an effort to more specifically target student weaknesses through an even smaller group setting, typically through one-to-one instruction (Castro-Villarreal et al., 2014; Fisher & Frey, 2010; Fuchs et al., 2010). While more individualized instruction is one method of intensifying the intervention, extending the time allotted for the intervention is another method used to intensify Tier 3 interventions (Wanzek & Vaughn, 2010).

Research indicates that there are multiple components to effective Tier 3 programs. Educators with expertise in a specified area are typically utilized to provide interventions through a more time-intensive comprehensive program (Fisher & Frey, 2010; Wanzek & Vaughn, 2010). Specialized training in targeted Tier 3 interventions is necessary to prepare teachers with the required knowledge and expertise. As the interventions progress, students are evaluated and constantly monitored to determine the need for transition through the tiers. Students who are not responsive to ongoing interventions through Tier 3 are considered for further evaluation to determine the need for special education services. Formal and informal assessments are utilized to determine on-going student need and to evaluate the level of student learning mastery as well as the fidelity of program implementation (Ciullo, SoRelle, Kim, Seo, & Bryant, 2011; Fisher & Frey, 2010).

High School Remediation Programs

While this research focuses on structured RtI programs, it is important to examine specific remediation programs utilized at the high school level. Fuchs (2009) highlights the basic structure for remediation programs as explicit, design specific, procedural, repetitive, and motivational. These components are geared towards improving the learning environment and helping students make sense of the learning process. Unfortunately, many high schools do not typically prescribe to a structured and complete three-tiered program, but they do provide remediation as needed to help students succeed. Research provides multiple examples of math and reading intervention programs aimed at skill-based remediation as needed based on student assessments. These sessions provide remediation to small groups and are short-term programs (Fisher & Frey, 2010; Wilson Just Words, 2018). While many educators spend the time and energy evaluating student data, identifying specific weaknesses, and finding the best way to provide students with the necessary support and instruction, there are many prescribed remediation programs that allow educators to focus on the student rather than the process.

Wilson Just Words. The Wilson Language Training Corporation provides a Tier 2 reading remediation program called Wilson Just Words. The Wilson Just Words program allows high schools to identify students with mild to moderate weaknesses related to decoding and spelling. The structure of a small group remediation is utilized and provided to students in 45-minute sessions at a frequency of 3–5 times each week. Remediation sessions can be provided by regular education teachers, reading specialists, or content intervention teachers; the goal is to achieve and maintain grade-level mastery in reading by teaching students the coding system for spelling and reading (Wilson Just Words, 2018).

Strategic Instruction Model. The Strategic Instruction Model (SIM) is a learning strategy that targets specific skill deficits in reading and math. Students are given the tools by which to learn and many of these tools are not content specific and can therefore be used in any of their content classes. The SIM model teaches students how to use instructional organizers as a learning strategy in all content areas (Hock, Bulgren, & Brasseur-Hock, 2017). While the SIM learning strategy is helpful for any student, it is especially beneficial to high school students as it promotes higher-order reasoning and can be used in any setting among a highly diverse student body (Hock et al., 2017).

Cognitive Tutor. The Cognitive Tutor program supports learning through a cooperative experience where students are taught the skills to effectively collaborate with one another in order to promote learning through group experiments and exercises. The program provides instruction based on the students' individual learning styles. Instructional strategies include problem-based learning, real world problem solving, peer review, hands-on learning through a variety of manipulatives, and graphic organizers. Pane, Griffin, McCaffrey, and Karam (2014) studied the effectiveness of the Cognitive Tutor program and found the program to have a

positive effect at the high school level as the classroom was transformed into a student-centered learning environment.

RtI Program Implementation

Successful implementation of RtI requires an intensive modification in the way schools and school divisions structure the identification of student needs and the resulting intervention programs selected to meet those needs (Hurlbut & Tunks, 2016; Noltemeyer et al., 2014). Modifications may occur in several areas such as curriculum content, instructional processes, intended outcome or product, and resources (Almalki & Abaoud, 2015; Wonder-McDowell et al., 2011). It may also include the identification of appropriate academic supports necessary for building upon teachers' pedagogy as this has a direct correlation to the success of program implementation (Castro-Villarreal et al., 2014; Goldhaber & Brewer, 2000). Creating and implementing an RtI program involves multiple steps to ensure successful program management and fidelity of implementation. Studies indicate that highly effective programs focus on the quality of instruction rather than the quantity of programs offered (Carlson et al., 2013; Wonder-McDowell et al., 2011). School divisions that incorporate the use of RtI in their regular instructional programs understand the importance of devoting the necessary time to providing differentiated and explicit instruction in order to meet the instructional needs of students (Almalki & Abaoud, 2015; Castro-Villarreal et al., 2014; Fisher & Frey, 2010; Tomlinson, 2001).

It is important to consider the various steps required to build and sustain an effective RtI program. Oakes et al. (2014) examined four specific implementation stages of RtI and provided a framework for the exploration, installation, initial implementation, and full implementation of Tier 2 and Tier 3 programs. In order to begin working through the four stages of

implementation, school leaders must first share information with their faculty and staff in order to gain the necessary buy-in. In an effort to build a shared vision among all stakeholders, it is important that everyone involved in the process understand why RtI is necessary and how it can positively impact student achievement (Burns et al., 2013; Dulaney, 2012). It is also important to examine teachers' perceptions and beliefs about the RtI process in order to successfully plan for program implementation (Castro-Villarreal et al., 2014). Understanding misconceptions and challenges prior to implementation will allow for a more thorough planning process and initiation of proactive measures geared towards successful program adoption. Once a shared vision has been established, the planning phase can begin.

Consideration must also be given to who will provide the selected interventions, which resources and supports are needed to ensure effective training and program implementation, and how the program will be monitored for fidelity. In order to accomplish this, a comprehensive examination of the programs currently in place must be done in order to determine what is needed (Burns et al., 2013). During the exploration and planning phase, it is necessary to identify the responsibilities of various staff members, specifically those responsible for assessment coordination and data collection. The utilization of student support teams allows for collaborative problem solving and promotes teacher ownership (Dulaney, 2012; Fisher & Frey, 2010). When building a student support team, it is imperative to select those that are highly knowledgeable in assessment research and able to effectively collect and analyze data and report findings to district and building level teams (Dulaney, 2012; Fisher & Frey, 2010; O'Connor & Freeman, 2012). Data analysis will help school and district level teams determine the specific instructional program needs of the students and the necessary resources required, thus entering the installation phase (Fisher & Frey, 2010; Oakes et al., 2014).

During the installation phase, determining the level of resources is particularly important. Consideration must be given to what is necessary and required in terms of providing effective professional development (Fisher & Frey, 2010; Gates et al., 2013). In a qualitative analysis of teachers' perceptions and attitudes about RtI, it was found that the most cited barrier to full implementation was lack of adequate and effective staff training, while time and resources were a secondary concern (Castro-Villarreal et al., 2014). Cowan and Maxwell (2015) also examined teachers' perceptions of RtI and found similar concerns regarding time being an obstacle to successful implementation. During the installation phase, school leaders offer a series of professional development opportunities that provide information to ensure understanding of the Tier 2 remediation process, provide training to acquire the necessary skills to effectively implement the program, and provide the time and support to apply those skills in the classroom setting (Fisher & Frey, 2010; Gates et al., 2013).

Ongoing and intensive professional development with a clear sustainability plan that includes regular progress monitoring is a key component to successful implementation (Castro-Villarreal et al., 2014; Fisher & Frey, 2010; Fuchs & Vaughn, 2012; Gates et al., 2013). Fisher and Frey (2010) explain that successful program implementation can be demonstrated with a 75% to 85% success rate among students. If the data do not support the targeted benchmark rate, instructional leaders need to closely evaluate the program and improve upon the instructional strategies and alignment (Fisher & Frey, 2010; Wonder-McDowell et al., 2011). These improvements will include the need for continued and ongoing professional development. Professional development should not only include continued collection and examination of data but also an evaluation of the targeted instructional practices to ensure alignment with researchbased practices (Fuchs & Vaughn, 2012; Wonder-McDowell et al., 2011). It is important that data be collected through the regular and consistent use of educational screeners, progress monitoring, and diagnostic assessments (Fisher & Frey, 2010; Hoover & Love, 2011). Initial screening occurs during Tier 1 in the general classroom setting in order to identify each student's individual needs (Fisher & Frey, 2010; Mellard et al., 2009). Data gathered from these initial screenings provide the foundation for decisions regarding the most effective instruction plan (Fisher & Frey, 2010; Hoover & Love, 2011). Selected interventions must take into account the student's individual learning needs, and differentiation is at the heart of those needs (Fisher & Frey, 2010). Once the screener has identified a potential instructional weakness, a diagnostic assessment is administered to further identify specific instructional needs. Progress monitoring occurs during all stages of RtI and provides educators with vital knowledge regarding the progress of the student and the necessity of moving students between tiers based on their level of need.

Hoover and Love (2011) stated, "RtI is grounded in the implementation of high-quality education validated through research" (p. 41). Evidence-based practices consist of comprehensive classroom curriculum combined with specific teaching interventions (Fisher & Frey, 2010; Hoover & Love, 2011). Evidence-based interventions include direct instruction, collaborative reading, and reciprocal teaching methods (Fisher & Frey, 2010; Hoover & Love, 2011). Fisher and Frey (2010) also noted that successful RtI programs utilize comprehensive and engaging interventions that are guided by valid and meaningful assessments. It is imperative that educators know what they are seeking to measure and then select the most appropriate assessment tool.

Once the data have been collected and analyzed and the intervention program has been created, the implementation process begins. The implementation process for an effective Tier 2

program requires accurate assessment of student needs beyond what is offered in the general classroom setting (Fisher & Frey, 2010; Oakes et al., 2014). It is important that educational leaders understand the data in order to recognize the prevalence of poor instructional methods in the general classroom and make changes necessary to improve the instructional program (Fisher & Frey, 2010; Fuchs & Fuchs, 2006). Left unattended, these instructional issues can lead to devastating affects within a school as the number of students moving from Tier 1 instruction to Tier 2 interventions increases. The focus should then shift to improving the instructional practices in the general education classroom.

Classroom implementation must be carefully structured and monitored as the process of RtI sometimes occurs in the inclusive classroom. Communication is a vital component of program success as general education teachers and special education teachers must work together to clarify and identify their specific roles and responsibilities (Fisher & Frey, 2010; Gates et al., 2013). If the special education teacher is seen as a subordinate in the inclusive classroom and co-teaching methods are limited, then implementation of RTI is limited and will not effectively meet the needs of students (Fisher & Frey, 2010; Grosche & Volpe, 2013). The role of the special education teacher is especially critical in facing identified challenges as they "possess the skills and abilities required to implement RtI with fidelity" (Gates et al., 2013, p. 21). It is also important to understand the relationship between special education eligibility decisions and RtI (Fisher & Frey, 2010; Hoover, 2010). In order to meet the challenges and potential barriers, it is vital to provide appropriate on-going professional development and structure collaborative meetings to ensure effective communication is taking place.

Program Support

Program sustainability depends on appropriate and on-going resources to meet the needs of students requiring a more intensive support than what is provided through teacher-level interventions in the general classroom setting (Oakes et al., 2014). Division and school leadership teams play a critical role in program fidelity and sustainability (Fisher & Frey, 2010; Hoover & Love, 2011). Burns et al. (2013) found that program sustainability requires a system change where the educational team must understand what needs to be changed, why it needs to change, and how the change must occur. Hoover and Love (2011) stated, "School-based leaders have a greater chance of success with their school teams because they are directly associated with school-based identified RtI issues" (p. 44). All stakeholders must see value in the changes; complete buy-in will only occur with experience, support, and total belief in the effectiveness of such change (Burns et al., 2013). Hoover (2010) expressed the need for a complete systematic change where instructional practices are closely evaluated and improved to ensure maximum effectiveness of the interventions.

Successful RtI programs consist of highly structured and active leadership teams and ongoing support for program success (Burns et al., 2013; Hoover & Love, 2011; Oakes et al., 2014; O'Connor & Freeman, 2012). Active leadership in an RtI program is necessary in order to demonstrate an accurate knowledge of program development and implementation, application of processes and structures, and an organizational framework to guide program decision-making (O'Connor & Freeman, 2012). District-level support also plays a critical role in program sustainability through on-going provisions of resources and a sustained vision for student success. Grosche and Volpe (2013) examined the requirements for full implementation of RtI and found that leadership at the various levels is required to facilitate ongoing professional development for all staff members in the areas of evidence-based practices, data analysis, and program monitoring. Consistent and effective program monitoring includes regular meetings to ensure collaboration, training for continuous program development, and evaluations to not only determine the effectiveness of an intervention but to allow for progress monitoring and fidelity of implementation. Consistency in effort will result in a shared commitment that will further lead to "remarkable results, which include closing achievement gaps" (Dulaney, 2012, p. 54).

Teachers' Perception of Remediation Programs

The successful implementation of RtI begins with the belief that all students can learn (O'Connor & Freeman, 2012; Orosco & Klinger, 2010). To examine the existence of this belief system, O'Connor and Freeman (2012) surveyed 600 educators in Florida schools and found that 59 percent of the participants disagree with the belief that all students are capable of achieving grade level benchmarks given sufficient instructional support. As the need for data-driven decisions is a critical component of the remediation process, it is important to understand the impact of teachers' judgments on student achievement. Sudkamp, Kaiser, and Moller (2012) conducted a meta-analytic review of studies that examined how teachers' judgments, informed and uninformed, influenced student performance as well as placement decisions. Uninformed decision-making leads to presuppositions regarding student academic placement and selected instructional programming. While there continues to be merit in teacher judgment, it is more beneficial to combine observational data with other reliable data in order to make the best instructional decisions. While the meta-analytic analysis indicated a positive and fairly high correlation (.63) between teachers' judgments of student performance and students' actual test performance, there is still a significant opportunity for misjudgment, which could possibly lead to devastating impacts on student achievement (Castro-Villarreal et al., 2014; Sudkamp et al.,

2012). This study supports the perceived need for targeted and specific teacher training in implementation of instructional remediation in order for teachers to effectively analyze student data.

The quality and frequency of professional development has been identified as one of the major concerns of teachers in implementing any RtI program. Hurlbut and Tunks (2016) examined several critical components to program implementation and discussed the importance of teacher preparation and on-going training to ensure successful performance through the use of appropriate student assessment, responsive interventions, effective progress monitoring, and consistent decision making. Teachers identified several areas in which professional development is necessary including classroom management, small group instruction, and documentation of student data (Cowan & Maxwell, 2015; Gates et al., 2013). Training in data analysis procedures will also support teachers in building upon their skills in making data-driven instructional decisions; however, many teachers lack the training necessary to effectively use data to make appropriate decisions regarding the instructional needs of their students (Castro-Villarreal et al., 2014; O'Connor & Freeman, 2012; Hurlbut & Tunks, 2016). In a study designed to identify instructional practices that support and promote critical thinking skills in students, Cassum and Gul (2017) found that teachers who have a demonstrated understanding of the process of critical thinking were the most effective in promoting these skills in their classrooms.

In a qualitative naturalistic inquiry, Cowan and Maxwell (2015) examined the perceptions of three elementary teachers in RtI program implementation and found that teacher buy-in increased with the level of administrative support in creating and modifying the RtI framework to meet the instructional demands in the classroom. Specific implementation demands of a Tier 2 remediation program on teachers include the amount of time and energy

required of teachers to invest in appropriate professional development and collaborative planning (Fisher & Frey, 2011; Oakes et al., 2014; Robins & Antrim, 2013). Oakes et al. (2014) explained that all staff should be involved in the exploration and installation process and that buy-in continues to build during the implementation phases. Preservice programs help general education teachers feel more confident and prepared to meet the instructional needs of students as well as promote positive attitudes towards working with students with disabilities (Hurlbut & Tunks, 2016; Robins & Antrim, 2013). It was also found that special education teachers valued professional development opportunities that offered ongoing training, provided opportunities to learn necessary application skills, and supported consistent and regular collaboration with their peers (Gates et al., 2013).

Perceptions should also be considered when implementing an instructional remediation program and clear guidelines should establish staff responsibilities. Cowan and Maxwell (2015) analyzed the perceptions of elementary teachers towards the implementation of RtI Tier 2 programs and found that teachers had positive beliefs towards the benefits of a structured intervention program but had reservations over the process of implementation including the amount of required documentation, additional teacher responsibilities, and the need for additional training. It was also found that teachers felt more aware of their students' needs and better prepared to identify effective instructional practices due to tracking student progress for RtI (Cowan & Maxwell, 2015). Werts and Carpenter (2013) reported that special education teachers' overall perception was that general education teachers are involved in all tiers of RtI but that perception slightly decreased through the progression of tiers. Special education teachers perceived their own involvement in each tier of RtI as slightly lower than the involvement of general education teachers but the perception increased through the progression of tiers. It is of interest to note that the study revealed reading teachers' involvement throughout all tiers increased (Werts & Carpenter, 2013).

Castro-Villarreal et al. (2014) surveyed 100 teachers to determine their level of RtI knowledge, the perceived barriers to effective implementation, their perceptions of the RtI process, and the likeability of the personnel involved in the implementation process. The overall knowledge of RtI was measured by the definition of RtI provided by the teachers; findings concluded that 73 teachers were only able to identify less than two key concepts of RtI, resulting in a "poor" rating (Castro-Villarreal et al., 2014). Teachers also identified several barriers to effective RtI implementation including training (28%), time (26%), availability of resources (11%), the RtI process (9%), and RtI paperwork (7%; Castro-Villarreal et al., 2014). The results of this study indicated a lack of effective training as well as other barriers that prevented full buy-in of the staff. Teacher perception of effective program implementation is also influenced when Tier 2 interventions are provided to more than 20% of the student population (Oakes et al, 2014). This negatively impacts the effectiveness and integrity of the program as well as teacher perceptions as they struggle to meet the instructional needs of students without the return of successful outcomes (Oakes et al., 2014). Teachers also reported an increase in stress in relation to the responsibilities of implementing RtI and related this to lowered school morale (Cowan & Maxwell, 2015).

Summary

Examining teacher perception of instructional remediation programs and the implementation process reveals several barriers that could potentially hinder student progress. In order to effectively implement any remediation program, teachers need to fully understand the purpose of the program and how it affects student achievement. Training programs and on-going

professional development will help increase teacher buy-in by providing teachers with the tools necessary for full program implementation. Teachers need specialized training in student data analysis and in how tiered interventions are designed to meet identified weaknesses. Appropriate allocation of resources is also necessary and should include on-going training, adequate time to meet the demands of data collection and documentation, and structured collaboration among appropriate team members.

While there are multiple studies that examine teacher perceptions of the RtI program, there is limited information related to the perception of high school teachers, specifically focusing on secondary prevention / remediation programs. Understanding teacher perspectives of remedial programs will help in identifying areas of concern with overall program implementation and further studies will be beneficial in identifying the perceptions of all teachers involved in the instructional remediation process. Dulaney (2012) found that while research for improving instructional practices through the use of RtI at the secondary level was slowly developing, there is still a significant need for more research in this area. Burns et al. (2013) also suggested further research on the dynamics of the implementation team, specifically on the components and procedures of the RtI program, in order to ensure program sustainability. This case study examined programs implementing instructional remediation programs at the high school level as well as related teacher perceptions. Processes and procedures of these programs were thoroughly examined in order to identify specific strengths and weaknesses. Chapter 3 provides details information on the method selected for this study, a review of the research questions, and a detailed description of the setting, participants, and procedures for this single case study.

CHAPTER THREE: METHODS

Overview

This single case study examined the academic Tier 2 remediation programs within a rural public high school. Chapter Three provides a description of the case study design, the related research questions, a description of the setting and the participants, and the procedures. My role as the researcher is also examined as well as the data collection and analysis procedures. A discussion related to trustworthiness and ethical considerations is also provided.

Design

This qualitative research utilized the single case study design. Using qualitative research to evaluate Tier 2 high school remediation programs allowed for deeper understanding of human knowledge and experience through "social and human science exploration" (Creswell, 2013, p. 6). Stake (1995) explained that qualitative research does not focus on establishing a cause and effect relationship but rather seeks to present an interpretation and evaluation in a holistic light. In approaching a study of Tier 2 high school remediation programs, it was important to examine the intricacy of this case and highlight the level of implementation in order to effectively evaluate the program (Stake, 1995). Qualitative studies place emphasis on first understanding the uniqueness of the individual cases and then synthesizing this information into a collective interpretation. Academic remediation programs offer the opportunity to study a system of interrelated components and the use of a qualitative design allows for a subjective analysis of these components. Creswell (2013) also explained that qualitative research consists of specific characteristics such as data collection that is conducted in a natural setting and includes multiple forms of data including self-created instruments, data analysis that leads to organized themes with the goal of presenting a holistic account highlighting participants' meanings, and a personal

account from the researcher explaining why the research is important. This study required multiple sources of data including document review, classroom observations, and teacher interviews. Interview questions were created to reflect open-ended questions in order to seek an explanation or discussion of the completed observation (Stake, 1995).

Types of case studies vary based on size and intent (Creswell, 2013). A single case study design will allow for the purposeful selection of a case and the replication of procedures that can be used at multiple sites (Creswell, 2013; Yin, 2018). An intrinsic case study allows the researcher to learn about the specific case as there is a genuine interest in it (Stake, 1995). An instrumental case study offers the opportunity to learn about something other than the case study itself (Stake, 1995). This single case study sought to identify and understand the program resources that were available to high school teachers, the established remediation procedures and how these procedures compared to actual classroom practices and high school teachers' experiences with academic remediation. As an evaluative study, the decision to use a case study design is further underscored.

Research Questions

The following research questions were selected to guide the evaluation of Tier 2 math and reading remediation programs at a small rural high school in Virginia.

RQ1: Why were Tier 2 remediation programs implemented at the high school level for math and reading?

RQ2: How was remediation conducted at the high school level?

RQ3: How successful has remediation been since being implemented, as compared to the previous remediation program (or lack of a remediation program)?

RQ4: What were teachers' perceived strengths and weaknesses of the high school remediation program?

Setting

This study examined the Tier 2 remediation programs at a rural public high school within the Commonwealth of Virginia. The selection of this specific high school was based upon the consistent implementation of math and reading remediation programs. The high school consisted of a total of four administrators with the principal as the lead school administrator, two assistant principals, and an athletic director. There were four school and career counselors and one media specialist. Core content programs include English, math, science, and social studies. There were six English teachers, six math teachers, four science teachers, and six history teachers. Specific grade levels included grades 9–12 with student representation in both general and special education. According to the Fall Membership for the 2017–2018 school year, there was a total enrollment of 700 students with 51% reported as female and 49% reported as male. The school's ethnicity consisted of 66.1% white, 23.9% black, and 2.6% Hispanic. Students with disabilities made up 11.1% of the total student population, and the high school reported a free and reduced lunch rate of 43.95%. This is higher than the national average for low-income children, which is reported as 34% (National Center for Children in Poverty, 2017). A pseudonym was assigned by this researcher to this school in order to protect confidentiality. For the purposes of this research, this high school will be referred to Successful Virginia High School (SVHS).

Based on the data from the 2017–2018 school year, the Virginia Department of Education reported that SVHS maintained full state accreditation, performing at or above the required state indicators. Data indicated that SVHS achieved an overall reading performance of 84%,

indicating a drop of five percentage points as compared to the 2016–2017 school year but still consistent with the three year average of 86%. The school report card also indicated an increase in the percentage of students with disabilities who passed the 2017–2018 reading assessment, reporting that 43% of students in that subgroup passed with 29% achieving an advanced score and 14% achieving a proficient score. This indicates an increase over the 2016–2017 reports which were not reported as they fell below percentage standards. The 2015–2016 reports indicated a pass rate of 30% for students with disabilities, all within the proficient range. The three year average for this subgroup was 24% which was well below the score for the 2017–2018 school year. Reports also indicated that economically disadvantaged students achieved a 73% pass rate in reading. This score was lower than the previous year's score of 84%, bringing this subgroup's three year average down to 76%.

Math performance was reported as 94%, slightly higher than the previous years' scores of 93% (2016–2017) and 91% (2015–2016). The three year average for student pass rate in math was 93%, consistent with the yearly averages. The school report card also indicated a marked increase in math performance for students with disabilities. This subgroup demonstrated an 82% pass rate in math for the 2017–2018 school year, an increase over the previous school years' scores of 65% for the 20162017 school year, and 42% for the 20152016 school year. The economically disadvantaged subgroup maintained a math score of 90%, slightly higher than the previous two school years' scores of 88% but consistent with the three year average of 89% for that same subgroup.

Participants

Purposeful sampling required specific decisions to be made as to which individuals and settings would provide the most beneficial information that would lead to a deeper understanding

of the case study (Creswell, 2013). Stake (1995) stated that "selection by sampling of attributes should not be the highest priority" (p. 6). It was important to maintain a variety and a balance when selecting participants as well as equitability (Stake, 1995; Yin, 2018). Purposeful sampling was utilized in this case study to select participants with specific selection criteria that included teachers in grades 9–12 who were currently implementing Tier 2 remediation in the content areas of reading and/or math. Selecting a variety of content areas and grade levels was important in maintaining a balanced sample as well as provide maximum variation (Creswell, 2013; Stake, 1995). Creswell (2013) also recommended no "more than 4 to 5 cases studied in a single study" (p. 157). For this reason, there were two academic contents selected for program observations and interviews: math and reading.

Selection of the teachers was based upon their participation in an active math or reading remediation program and their willingness to participate in the study. Yin (2018) explained the importance of attaining informed consent from volunteer participants by providing an honest synopsis of the study, ensuring protection from harm and/or deception, and providing safeguards for participants' privacy and confidentiality. Once the participants were identified, pseudonyms were assigned in order to protect their identity and privacy. Chapter Four will describe the demographic data in the Participants section using the assigned pseudonyms for each teacher. The information collected from Question Two from the Teacher Interview Questions also provided a thick, rich description of the teacher's educational philosophy and what shaped his or her views.

Procedures

Approval was a necessity in order to move forward with this study. Upon successful completion of the proposal defense, Liberty University's Institutional Review Board (IRB)

application was completed with the necessary ancillary materials including written permission from the school division selected for research. Prior to collecting any data, approval from the IRB was obtained (Appendix A). I contacted the division superintendent and the school administration for approval for the study and submitted this to the IRB for review. Once university approval was obtained, I worked with the school to identify teacher participants. It is of utmost importance to protect research participants from deceptiveness and maintain an increased focus on sensitivity and privacy (Creswell, 2013; Stake, 1995; Yin, 2018). Teachers received information regarding the study, a demographic questionnaire (Appendix C), and an informed consent (Appendix B) which was necessary in order to move forward (Creswell, 2013; Yin, 2018). These information packets were delivered to the selected school sites and given to the teachers by designated school personnel. Completed questionnaires and informed consents were returned electronically and analyzed. Information received from the questionnaires guided the selection of specific teachers based on the criteria of teaching assignment and willingness to participate.

Based on the four identified research questions, a variety of data was collected and analyzed. This included recorded interviews with teachers, teacher questionnaires, documented observations of remediation sessions, and related documents including remediation training documents and supporting frameworks. Questions used in the interviews were peer-reviewed by a co-worker holding an educational doctorate degree in order to further improve upon them. I also practiced the interview procedure with a teacher in my own school to ensure my preparedness for teacher interviews. Audio recordings of the interviews were transcribed and securely kept as both electronic and hard copy. A personal journal was also kept electronically documenting the process and personal reflections of my experiences.

Documentation

Documentation related to the division and the school's remediation program was analyzed. Yin (2018) explained that a variety of documentation should be used to validate other data sources and create a triangulation of data. It is also noted that written documentation should serve as a supplement to interviews and observations as it gives valuable insight (Creswell, 2013; Yin, 2018). As such, the documentation collected included formal manuals and/or written guidelines provided to teachers regarding the implementation of remediation programs. The written curriculum used during remediation was also examined as well as data reports used to document student progress. Documentation with identifying information was kept in a locked cabinet with electronic files being password protected to further protect personal information and maintain privacy and confidentiality (Creswell, 2013; Stake, 1995; Yin, 2018).

Interviews

Individual interviews were conducted with teachers at the school site at times convenient to their schedules (Yin, 2018). Interview sessions were a critical part of the case study process and as such, were electronically recorded and transcribed in order to accurately record and analyze the comments and answers in each interview (Creswell, 2013; Yin, 2018). Audio recordings were done on an iPad using the Voice Recorder and Audio Editor app and I personally transcribed each interview as I have extensive experience transcribing videotapes and audio recordings in my previous position as a School Board Clerk. Each interview participant was unique in many ways and was approached with interview questions that were tailored to their specific and unique experiences (Stake, 1995). It was important that interview questions were written with a focus on gaining knowledge that would lead to answering the research questions. The interview questions included as Appendix D were peer-reviewed by a co-worker

who holds an educational doctorate. To further refine these questions as well as the interview process, I held a practice interview with a teacher in my school.

Observations

In order to gain a deeper understanding and knowledge of remediation programs, it was important to personally observe the remediation sessions as they occurred. Yin (2018) explained that observational data can provide invaluable information that can complement other data points and allow for deeper insight into the case study. Classroom observations examined the level of teacher engagement and support, the communication of learning targets, and the level of adherence to established remediation protocols or procedures (Fisher & Frey, 2010). Observations were scheduled with all participants and recorded on the Classroom Observation form provided in Appendix E. This allowed the researcher to analyze the practices among the classrooms in an effort to identify alignment with the policies and/or procedures for classroom remediation and how that translated to student success.

The Researcher's Role

My career in the educational system began in 1999 and since that time I have served in a variety of roles and in a variety of public school settings that include a division school board office, a high school (grades 9–12), and a middle school (grades 5–8). I am currently a Science, Technology, Engineering, and Mathematics (STEM) Coordinator working to build a STEM program within my division. My interest in studying remediation programs stems from my experience as a school administrator. I spent two years learning about Response to Intervention (RtI) and working with teachers to implement research-based practices based on data-driven decisions. I have seen remediation programs that have resulted in improving student achievement, and I have seen remediation programs that have failed to produce any positive

results. My experience allowed me to identify best practices and analyze data with a critical eye. I was also in a better position to provide helpful feedback to the school administrator as well as provide recommendations for further studies based on my observations.

School settings create an opportunity for social learning in many ways. As teachers work together and learn together through collaboration, it is important to understand how individual perspectives and interpretations can affect overall social constructs and the self-efficacy of teachers in a given building. Stake (1995) explained that knowledge is constructed through human experience and personal perception. As qualitative studies are often grounded in constructivism, I approached this study using this paradigm. It is my belief that human behavior is a direct reflection of personal experiences and perception. I feel it was an important aspect to study when examining the implementation of Tier 2 remediation programs. This information can be important to school and program administrators as it can impact the fidelity of program implementation. While I had no personal or professional relationships with anyone in the potential school division, I do have an interest in helping schools improve upon the programs that affect student achievement.

Data Collection

This case study focused on collecting data related to the Tier 2 remediation program in order to comprehensively answer the identified research questions. Data included a demographic questionnaire, interviews, observations, and documentation review. According to Stake (1995), "The experience of the qualitative researcher is one of knowing what leads to significant understanding, recognizing good sources of data, and consciously testing out the veracity of their eyes and the robustness of their interpretations" (pp. 49–50). In order to stay organized and focused, it was necessary to create and follow a detailed data-gathering plan. This plan clearly

defined the case, presented the research questions, identified specific people and contact information related to the study, outlined the data sources, and documented related schedules (Stake, 1995; Yin, 2018).

Questionnaires

An initial demographic questionnaire (Appendix C) was given to all math and reading teachers in both the general and special education departments providing remediation to students at SVHS. The information from the questionnaire gave me insight as to the level of experience of each teacher and the background knowledge in regard to their education and work experience. This allowed for a purposeful selection of the participants based on information provided related to content area and willingness to volunteer. The information provided on these questionnaires also helped guide the questions for the interviews and as well as "develop a close-up, strong conceptual understanding of how things work" (Miles & Huberman, 1994, p. 42; Yin, 2018).

Document Analysis

Prior to the interviews and observations, I requested copies of the training documents related to Tier 2 remediation procedures that teachers received at the beginning of the school year. I also accessed the online copy of the division's policy manual and the high school program of studies. Being able to examine this information gave me insight as to the expectations of program implementation and level of teacher preparedness through training and the provision of resources.

Interviews

The purpose of these semi-structured interviews was to gauge the constructs of teachers to better understand their experiences with remediation (Lincoln & Guba, 1985). Interviews allow researchers to better understand the case through the description and interpretation of the participants (Stake, 1995; Yin, 2018). Stake (1995) stated, "The interview is the main road to multiple realities" (p. 64). The interviews allowed for rich discussions in order to gain better insight into the perceptions that guided teachers in their practices. Interviews were conducted with teachers in person and via technology. As a semi-structured interview, the use of open-ended questions allowed me to follow-up on participants' answers in order to gain a full understanding of their experiences of the implementation process of Tier 2 remediation and individual self-efficacy.

Once the questions were approved by the IRB and reviewed by a co-worker who holds an educational doctorate, I scheduled a time to meet with a teacher outside of the selected site for the study in order to practice the interview questions as well as verify the ability of the audio recording app on the iPad to clearly record the interview. Once this was completed, the interview protocol was reviewed to determine the need for any changes to the questions or the need to select another audio recording device. Interviews were scheduled with teachers following the scheduled classroom observations and were audio recorded using the Video Recorder and Audio Editor app on the iPad. After the interviews, I personally transcribed the audio recordings verbatim and verified my transcriptions by providing each participant with a copy of his or her interview responses to further ensure accuracy. During the interviews, handwritten notes were recorded in a notebook, highlighting key aspects of the participants' answers.

Standardized Open-Ended Interview Questions

- 1. Please state your name and the grade level and subject you teach.
- 2. Please explain your educational philosophy and what shaped your views as an educator.

- 3. How did your teacher preparation program prepare you in providing RtI and / or Tier 2 remediation?
- 4. What is your experience with RtI and Tier 2 remediation programs?
- 5. Why is remediation implemented in your classroom?
- 6. Please explain the expectations and procedures for the remediation program.
- 7. How do these expectations / procedures compare to actual practices?
- 8. Please describe the training you received in order to provide remediation to students.
- 9. What resources do you feel are necessary for successful remediation?
- 10. What resources are available to you?
- 11. How do these resources support you in providing effective remediation to students?
- 12. Explain how you measure student success with your remediation program.
- 13. What are your thoughts regarding today's remediation observation?
- 14. What is your overall perception of the strengths and weaknesses of the remediation program?
- 15. What do you think could be done to improve the program?

These questions were created with the intent of better understanding the teachers' educational background and experience as well as their philosophy of education. While many of these questions revolved around the research questions, they also provided an opportunity to better understand the teachers' perception of the remediation program. Questions 1–4 were specific to the teacher's background and personal experiences with remediation programs. Examining the teachers' background and personal experiences helped with understanding individual perceptions. Questions 5–7 were probing questions to better understand the level of knowledge the teacher has when it came to the remediation program expectations and procedures

as well as personal opinions of the actual practices as they related to the expectations. Gaining a better understanding of what teachers understand about remediation programs helped in identifying gaps in what is understood and what is expected in relation to program implementation. Questions 8–12 explored the availability of training and resources. The availability of resources is a key component to the success of remediation programs as well as the continued sustainability of the program. Question 13 was an extension of the observation and allowed teachers to provide input by providing explanations of situations that may have been unknown to me. Questions 14 and 15 sought to explore the teachers' perceptions on the remediation program and gain insight as to how they felt the program could be improved. It is important to note that while these questions focused on the issues, I was prepared to ask follow-up questions to further engage the participants in deeper conversation regarding their perceptions of program implementation.

Observations

In order to gain a better understanding of the implementation of remediation programs, it was necessary to observe the program directly (Stake, 1995; Yin, 2018). Researchers need to be able to keep detailed records of the events as they were observed as this allows for a more comprehensive analysis that will be directly related to the research questions (Creswell, 2013; Yin, 2018). The observational protocol (Appendix E) was used to record necessary information as this is especially useful in a case study design (Creswell, 2013). The observations for this case study utilized the model of the researcher as a nonparticipant as data was recorded without any direct involvement during the observation (Creswell, 2013). Observations were scheduled with each participant and lasted for approximately 30 minutes, depending on the time allotted for

the remediation time. This time allotment was based upon Fisher and Frey's (2010) suggestion that Tier 2 remediation sessions last a minimum of 30 minutes.

Data Analysis

According to Stake (1995), case studies can benefit from both categorical aggregation and direct interpretation as both are beneficial in understanding a given case. Categorical aggregation uses data to identify common patterns related to specific categories that are related to the research problem (Creswell, 2013; Yin, 2018). Direct interpretation allows researchers to focus on and draw meaning from only one instance (Creswell, 2013). Throughout data analysis, the researcher will continuously dissect and rearrange data in an attempt to establish patterns related to the research problem (Creswell, 2013; Stake, 1995; Yin, 2018). Analysis in case study relies on the ability to dissect data and relate the gained information to other data points in order to establish a pattern (Stake, 1995; Yin, 2018). The process of data dissection and relational analysis was observed as I analyzed the data collected through the documentation, interviews, and observations. The documentation gathered through training and program implementation guides, the division policy, and the high school programs of study was compared to information gathered during the participant interviews and the observations. Interviews and observations were compared to determine similarities and differences. Data gathered from the answers provided in the interviews and observational and reflective notes were synthesized to determine if the actual practices related to the expectations for program implementation. This information led to a deeper understanding of the perceptions of teachers and the level of program implementation. In order to effectively examine the data and analyze common themes, the NVivo data analysis tool was used. This online program allows for data to be coded and stored in order to maximize the efficiency of data analysis and reporting. Once the data was organized

in NVivo, it was transferred into a blank Microsoft Word document where it was color coded and further analyzed to determine common themes.

Coding

Stake (1995) explained the importance of searching for consistent patterns during data analysis. These patterns may be found throughout the various data points and lead to categorical aggregations. Categorical aggregation and direct interpretation are a necessity in case study research (Stake, 1995; Yin, 2018). This research sought to identify categories related to the research questions, specifically related to the available resources for remediation, procedures for program implementation, and teacher perceptions of remediation programs. NVivo and Microsoft Word were utilized to expedite the process of coding and allow for easier identification and reporting of commons themes.

Naturalistic Generalizations

Stake (1995) defined naturalistic generalizations as "conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that the person feels as if it happened to themselves" (p. 85). This study allowed for the occurrence of naturalistic generalizations in many ways. RtI and Tier 2 remediation are becoming more common in public education, especially at the secondary level. Participants in this study may also provide generalizations. The results of the study provide the reader with a rich and descriptive narrative that allows for an explicit and candid experience (Stake, 1995; Yin, 2018).

Trustworthiness

Trustworthiness in this case study was established through credibility, dependability and confirmability, and transferability. Each of these components of trustworthiness is described below with an explanation of how this was achieved.

Credibility

Credibility can be established through the representation of reality in the case study findings as well as striving to maintain ethical standards and high professional ethics (Yin, 2018). I worked to maintain a credible study through my own professional and personal behavior and interactions with others involved in this process. Credibility was also increased by using rich descriptions articulated through the triangulation of data, reporting a negative case analysis if necessary, and conducting member checks throughout the study (Rockinson-Szapkiw & Spaulding, 2014). Yin (2018) notes a major strength of the case study design is the ability to strengthen data collection findings through triangulation, or the convergence of multiple data points that support a common theme. Triangulation allowed for increased dependability and credibility of the data researched. The study also gained credibility through the input and feedback from my dissertation chair and peers in relation to the interview questions.

Dependability and Confirmability

Dependability and confirmability were demonstrated through the consistent reporting of and rich detail about the setting and case study. It required that the researcher take the necessary steps to triangulate data in order to maximize the fidelity of the findings (Creswell, 2013; Yin, 2018). I ensured dependability and confirmability through the use of an audit trail that documented the procedures followed for data collection and analysis and reported that information in the appendix (Rockinson-Szapkiw & Spaulding, 2014). This audit trail included the documentation used as well as the steps that were taken to ensure the appropriateness and applicability of the document tools.

Transferability

Transferability was possible as the findings from this case study may apply to other cases. Transferability was increased through purposeful sampling to allow for maximum variation in the sample. Thick, rich descriptions of the classroom observations and teachers' experiences also provided transferability in this case study (Creswell, 2013). I was clear and concise in my reporting and provided enough detail to allow for further studies of remediation programs at the high school level in various other contexts.

Ethical Considerations

Confidentiality was of the upmost importance as administrators and teachers could have been hesitant to fully communicate their experiences without this assurance. Any individual, group, or sites that needed to be identified within this study were given pseudonyms to protect their identity. All findings from this research were fully reported in an honest and ethical manner. Findings were shared with the participating school division and identified schools in order to facilitate conversations about the level of program implementation. This information could lend itself to future professional developments that will help in areas identified as a barrier. All data was secured in a locked filing cabinet and password protected electronic files.

To further safeguard against other ethical issues, it was important to first obtain IRB approval from Liberty University. In order to achieve this, documentation was submitted establishing an approval from the selected school division and schools (Creswell, 2013; Yin, 2018). Researchers can also avoid ethical issues through full disclosure of the purpose of the study and recognizing and respecting the sensitivity of certain populations (Creswell, 2013; Yin, 2018). As it became necessary to physically enter the school sites, it was important to respect the site and the participants. This was achieved by performing observations with little to no interruptions or distractions, avoiding purposeful deceit and personal bias, and avoiding power struggles during interviews (Creswell, 2013; Yin, 2018). When reporting the data, all precautions were used to avoid plagiarism and to maintain appropriate communication with all stakeholders (Creswell, 2013; Yin, 2018).

Summary

This single case study was designed to evaluate the use of Tier 2 remediation programs at the high school level. By utilizing a qualitative research design, this study allowed for a deeper interpretation of the human experience as it related to implementing Tier 2 remediation at the high school level (Creswell, 2013). As the individual case of each teacher was analyzed, a more collective interpretation of the high school remediation program was possible. The focus of this study was to understand why a Tier 2 remediation program was implemented at SVHS, how it was conducted, and if it has been successful in addition to examining teachers' perceptions of the remediation program. While there are multiple studies related to RtI, this study sought to fill the gap in the literature as there is very little research related to RtI and Tier 2 remediation programs at the high school level. Participants in this study were selected by the content and grade level they taught as well as their willingness to participate as evidenced by the information provided on the initial demographic survey. Procedures for data collection and analysis began with approval from the school division and superintendent and the university IRB. Data included information from teacher and administrative interviews and questionnaires, classroom observations, and printed and/or electronic documentation related to Tier 2 remediation. Personal reflections were collected in an electronic journal. Triangulating the various data sources and identifying the common themes through the use of NVivo provided a rich, thick description of the Tier 2 remediation program. The information gathered in this research may
foster conversations at the high school level in order to improve upon current remediation practices. If the fidelity of program implementation leads to an increase in student achievement, other divisions and high schools may see the benefit of RtI and Tier 2 remediation programs and begin implementing a formal Tier 2 remediation program in order to help their own students succeed. Chapter 4 will present the findings of the data analysis beginning with a brief summary of the participants followed by a presentation of identified themes and related data. The research questions will be reviewed and answers to the questions based on the provided data will be presented.

CHAPTER FOUR: FINDINGS

Overview

The purpose of Chapter Four is to present the results of the data analysis for this single case study which examines the implementation of a Tier 2 remediation program currently in session at Successful Virginia High School (SVHS). This study was guided by four research questions related to the implementation practices and perceptions of Tier 2 remediation programs at the high school level. The first question seeks to examine the reasons behind which a remediation program was selected and clarifies the nature and background of this case study (Yin, 2018). The second question seeks to examine the guidelines and procedures that are necessary for program evaluations, implementation, and sustainability. The third question focuses on program evaluation specifically as it relates to program success. And the fourth question seeks to understand the perceptions of those implementing the program at SVHS.

Three data collection methods were utilized during this study including the collection of documentation, classroom observations, and teacher interviews. The data gathered from the various tools were entered into the online NVivo data analysis program to assist with the organization of themes and topics. The data were then transferred to a Microsoft Word document where they were read and reviewed multiple times in order to further identify and organize existing themes. As themes were identified, they were highlighted and color coded in order to track frequency as well as patterns. In doing so, four themes were identified throughout the data analysis procedure: professional development, common planning, mixed ability groups, and time. Information that was collected or shared during the interviews that did not pertain to the four themes and did not appear with enough frequency to be considered a separate theme was considered an outlier and therefore disregarded. The transcripts for the teacher interviews were

recorded on the iPad, transcribed verbatim by the researcher, and then sent to each teacher for a member check process to document the accuracy of these notes.

Participants

The teacher participants in this study were given pseudonyms to protect their identity during this research. Pseudonyms were assigned based on their specific content and the order in which they responded to the demographic survey. These pseudonyms were used during the presentation of participant data and research questions 1–4, but withheld during the review of interview questions 5–15. For those interview questions, teachers were simply referred to as "teachers" in order to further maintain confidentiality as there would still be a risk of identifying an individual participant within such a small participant group.

This group of participants comes from highly diverse educational backgrounds ranging from bachelor's degrees to educational doctorates and their experience ranges from 1–26 years. A detailed description of each teacher is discussed below based on the provided demographic data and individual answers from the semi-structured interviews, specifically teacher interview questions 1–4. Information provided reflects the data collected at the time of this study. The information below also provides the assigned pseudonyms, the years of teaching experience, the highest educational level achieved, the area of certification, and an explanation of the teacher's educational philosophy and what shaped his or her views as an educator.

English Teacher 1

English Teacher 1 has 10 years of teaching experience and reports the highest level of education is a master's degree in English. Specific teacher certification is reported as English and Language Arts and the current teaching assignment is English 10–12 / Language Arts. When asked to explain her educational philosophy and what shaped her views as a teacher, English

Teacher 1 responded by saying, "I believe everybody can be successful." She went on to discuss the misconception that teachers were good students themselves as she was not a great student but rather "in school being suspended and getting detention." She explained that she "never had any teacher that really came along side me and supported me so I kind of had that vision that I wanted to be that teacher" for students as she worked to build critical relationships with them. English Teacher 1 also described how her love for learning leads her to inspire others to learn and find their passions in life.

When asked to describe how her teacher preparation program prepared her in providing Tier 2 remediation, she explained that she was involved in a "couple of projects where I did remediation" but that her experience was a "trial by learning in seeing what worked and what didn't work." She did not mention anything by way of formal instruction in providing Tier 2 remediation. Her work experience with Tier 2 remediation revolves around her current school assignment, beginning with "remediation for the kids who were taking the reading and writing Standards of Learning (SOLs) for English 11." This focus has since changed as she now provides remediation for students seeking to pass the Work Keys assessment, an alternative assessment to the reading and writing SOL tests.

English Teacher 2

English Teacher 2 has 13 years of teaching experience and reports the highest level of education is a doctorate in educational leadership. Specific teacher certification is reported as Elementary Education, PreK–6, Social Science 6–8, English 6–8, Mathematics 6–8, Secondary English, and PreK-12 Administration and Supervision. Current teaching assignment is reported as English 11. When asked to explain her educational philosophy and what shaped her views as a teacher, English Teacher 2 stated that she believed "everyone learns differently, everyone is

going to meet different expectations." She went on to explain that having high expectations encourages students to work harder and "even if they don't necessarily meet my high expectations they will have done better than they would have if my expectations were less." English Teacher 2 also highlighted the importance of having a structured classroom when establishing an atmosphere of mutual respect. She stated, "We follow routine and procedure not rigidly, but the students know what to expect and I think that makes a difference in a smooth running classroom." She also explained that "the kids know that I'm going to do everything that I can to help them succeed and so they appreciate that."

English Teacher 2 described the education she received in Tier 2 remediation during her teacher preparation program as "very little." She stated, "Most of the work that I was able to get regarding intervention and remediation was in the research I did myself when I had to incorporate remediation into a school day." The work experience she described in relation to Tier 2 remediation involved her work as a middle school teacher. She explained, "Whenever we were going to refer a student, we had to show evidence of RtI, Tier 2 remediation before they would even be considered for special education services." English Teacher 2 translated her experience in remediation at the middle school level to her current assignment at the high school, even though referral at the high school level is not a common occurrence as students "have already been identified."

English Teacher 3

English Teacher 3 has three years of teaching experience and reports the highest level of education is a master's degree in English, Elementary, and Special Education. Specific teacher certification is reported as English, Elementary, and Special Education and current teaching assignment is English 10–12. English Teacher 3 described her educational philosophy as that of

a constructivist. She explained that she believes in providing hands-on learning opportunities and making learning "applicable to daily life." Topics related to human rights as well as in-class competitions are frequently used in this classroom to motivate students in their work.

English Teacher 3 described her teacher preparation program as helpful in preparing her to provide Tier 2 remediation to students. Receiving instruction through a master's degree program specifically for special education taught her "how to go through the steps for special education referral." Her work experience has further helped her at the high school level as she is part of a collaborative classroom where the teachers work with all students "regardless of whether than have an IEP accommodation or not." The ability to work with all students has helped highlight the need to examine the strengths and weaknesses of each individual student within her classroom.

English Teacher 4

English Teacher 4 has three full years of teaching experience and is currently completing the coursework for a Master of Education in Teaching and Learning: English. Teacher certification is reported as English and current teaching assignment is English 9. English Teacher 4 had not thought about her educational philosophy in a while but she did explain her belief that if students "believe that you care about them beyond how they're performing in school, then they'll do better in your class, they'll give more effort and perform better because they're going to feel better about themselves." This teacher explained that her views were shaped by her experiences growing up with a brother who struggled in school. She stated, "I knew he had some teachers who really, they either didn't like him or the way they responded to him made him feel like they didn't like him." She went on to explain that the reactions of her brother's teachers caused him to shut down. "I could just kind of see his spirit breaking in those times when he had a teacher who seemed to kind of label him as trouble" in an effort to get him out of that particular classroom. The personal experiences of English Teacher 4 have made her reflect on her reactions to her own students as she wondered if her particular response to specific situations was always appropriate but she did state that because of this experience, she makes "more of a direct effort to connect with them" and provide a better classroom experience overall.

When asked to describe how her teacher preparation program prepared her in providing Tier 2 remediation, English Teacher 4 explained that she did not go to school with the intent of teaching. When the opportunity presented itself, she went into the classroom with only a "few education classes." She described her first year as "a learning curve" and explained that she "learned a lot from my colleagues in the English Department, specifically in how to address it when a student is falling behind." English Teacher 4 learned that by grouping students with similar weaknesses, she was better able to efficiently provide the necessary help to her students. She went on to explain that she is currently halfway through the master's program in English and stated, "I have had a chance to actually take some formal courses that have made me kind of reflect more deeply on what I already do and what I can do better." When asked about her work experience, she explained that this is her first teaching assignment and she has not had much "practical training for remediation other than just seeing how my colleagues do it" which she admits limits her work experience to "more observation kind of in passing."

English Teacher 5

English Teacher 5 has five years of teaching experience and holds a Bachelor of Arts in English. Teacher certification is reported as English, and English 9 is the current teaching assignment. English Teacher 5 also believes that "every student can learn, but learning for every student doesn't look the same." She stated that she is "a big advocate of differentiation" and that success "looks different for every student." Her guiding philosophy is that teachers need to meet students at their level and that success may look different depending on the student and his or her ability.

English Teacher 5 explained that her teacher preparation program allowed her to complete a practicum "where you are student teaching and observing." She went on to explain another aspect of the program required her to "choose an after school program to be involved with." She stated that this program "really prepared me because I was tutoring students on all subjects and pretty much all different grade levels." She felt this program helped her learn how to quickly identify individual student needs and provide them with the necessary help to build upon weak skills during a short time frame. She explained how this has helped her in her current assignment and stated, "I really applied that fast check with the Academic Achievement (AA) system that we have because we never know who's going to be in those groups until we are assigned them." She continued, "Thinking on your feet and being able to adapt to what they need for that day is very important."

Math Teacher 1

Math Teacher 1 has seven years of teaching experience and has a master's degree in mathematics. Teacher certification is reported as Secondary Mathematics and the current teaching assignment is Math 9–12. Math Teacher 1 described his philosophy as being a "guide, not here to show you exactly what you have to do for every single step." He went on to explain that teachers should help students grow by helping them through the learning process.

When asked how his teacher preparation program prepared him to teach Tier 2 remediation, Math Teacher 1 stated, "I can't remember anything particular." He also stated that beyond the current AA program, he has had very little work experience with remediation. When

discussing his current work experience, he explained that the common planning time was helpful, "especially with our veteran teachers helping a lot with different strategies with scaffolding and with re-teaching methods." He also added that his co-teaching experience has been helpful with providing remediation.

Math Teacher 2

Math Teacher 2 has seven years of teaching experience and has a bachelor's degree in secondary education with teacher certification in secondary math. The current teaching assignment is Algebra 2. Math Teacher 2 believes in the power of fighting through a problem in order to learn. "I'm big on letting them struggle for a little bit." He explained that fighting through the confusion shows him that the student is truly trying and working hard to get to the solution. "Once they kind of give up with their struggles, they'll ask and most of the time it's real simple."

Math Teacher 2 explained that he did not really have a lot of experience with remediation through his teacher preparation program. He stated his educational background focused more on "knowing your content, different strategies you can use, making sure you are comfortable being up front in the class, and a lot of peer criticism on your presentations." His first exposure to remediation and using data was difficult as he "learned it the hard way." And while his current assignment as an Algebra 2 teacher does not focus on the students taking an SOL, the time he has with his AA class is used to build upon the knowledge and understanding from his regular content.

Math Teacher 3

Math Teacher 3 has four years of teaching experience and has a bachelor's degree in secondary education. Teacher certification is reported as Secondary Education and current

teaching assignment is Math 9–12. When asked to explain her educational philosophy, Math Teacher 3 stated, "To help the kids do their best and always be positive and confident in themselves." She explained that her beliefs were shaped by the teachers she had in high school. Her teacher preparation program taught her to focus on student data and the individual need of each student. She explained that she really does not have any work experience beyond the AA program and that her current assignment "was kind of handed to me and I ran with it."

Math Teacher 4

Math Teacher 4 has 17 years of teaching experience and holds a bachelor's degree in psychology with an additional 30 hours of graduate level courses for special education. Teacher certification is reported as Specific Learning Disabilities K–12 and the current teaching assignment is Algebra I. Math Teacher 4 explained her educational philosophy was to "reach every student." She went on to say, "I put in full effort as long as they are putting in some effort." She also discussed the importance of making connections with the students as a way to motivate them to work harder. In reflecting upon her own experience as a student, she explained, "If I don't have that connection with a teacher, I will work for them but I won't work as hard."

Math Teacher 4 explained that her teacher preparation program was not focused on education but rather psychology. She is currently two classes away from earning a master's degree in special education which has allowed her to build her knowledge of remediation through the required field experience. She stated this program has "allowed me to go into classrooms and watch other teachers and how they handle Response to Intervention and tiered differentiation." She also explained that her work experience with remediation has been limited but that she does use the school's data system to analyze data in order to design a program that fits the individual need of the student.

Math Teacher 5

Math Teacher 5 has one year of teaching experience and holds a bachelor's degree in mathematics. Teacher certification is reported as Secondary Education in Mathematics and the current teaching assignment is Algebra I. Math Teacher 5 highlighted the importance of teamwork when discussing her educational philosophy. She also explained the educational benefit of students having "confidence in the classroom" when working with other students collaboratively: "If someone's stuck, I want us to work as a team to get that person to the level they need to be." Math Teacher 5 also mentioned her goal of "no student left behind" and having connections with each student in her classroom. She explained that those relationships are built by "connecting with after school activities or interests that they have, personal interests, just to make sure they have a personal connection with me."

Math Teacher 5 described her teacher preparation program as one that focused on analyzing data. She feels this component of the educational program has prepared her "to assist students in weak areas." She also explained her field experience while in college helped prepare her as she "was able to help out at a middle school" and provide "remediation after school." Her work experience is limited but she attributes increased student achievement to the ability to work with her colleagues within her department.

Math Teacher 6

Math Teacher 6 has 12 years of teaching experience and holds a bachelor's degree in mathematics. Teacher certification is reported as Secondary Mathematics 6–12 and the current teaching assignment is Geometry. Math Teacher 6 strives to "teach the students to be lifelong

learners." Her philosophy highlights the importance of teaching students skills that can be applied to life beyond the classroom. Her philosophy was shaped by her experience as a student where she was not the strongest math student but had "some really good math teachers growing up." She developed an ability to break things down in math into smaller pieces to better understand it, which helps her in teaching others how to do the same. Math Teacher 6 does not recall a Tier 2 remediation component in her teacher preparation program. Her work experience is also limited to her current assignment but she did explain her part in helping build the current remediation program. She stated, "We had to come up with a remediation plan for our at-risk kids or the kids that were on the bubble." She explained that the plan has been revised over the years based on the individual needs of the students.

SPED Teacher 1

SPED Teacher 1 has 26 years of teaching experience and holds a bachelor's degree in special education. Teacher certification is reported as Special Education / ESL and the current teaching assignment is Special Education 9–12. SPED Teacher 1 explained that her philosophy "focuses on the students as far as giving them the tools to be productive people after they leave school." Her goal is to help students develop vocational skills and preparing them for jobs after high school rather than focusing on college. Her teacher preparation program provided her support from her professors but there was no mention of specific remediation training. SPED Teacher 1 stated that it was a "learn as you go type of situation." Her work experience at the high school focuses on providing students with assistance through the collaborative teaching model. She stated that remediation sometimes occurs during "pull out for smaller group instruction or one-on-one" to provide students with strategies to help them improve in academic areas such as reading.

Results

Results from this case study are provided below. Data were analyzed in an effort to dissect the information and identify and establish patterns. Each data point is presented below with corresponding themes. Upon review of all data, themes from the data points were analyzed to determine overall common themes and their alignment with the research questions. Data analysis consisted of document review from the school division policies and comprehensive plan and from the Academic Advancement planning form, classroom observations, and teacher interviews.

Document Review

School division policy. There are five division policies with guidelines for remedial services and professional development standards. Policy IA, Instructional Goals and Objectives (SVHS, 2018c), outlines the responsibilities of the school division to provide an effective instructional program to students from kindergarten through grade 12. The policy specifically states that the School Board shall implement "programs based on prevention, intervention, or remediation designed to increase the number of students who earn a high school diploma and to prevent students from dropping out of school; such programs shall include components that are research-based" (SVHS, 2018c, p. 1). The policy also requires "a plan to make achievements for students who are educationally at risk a division-wide priority that shall include procedures for measuring the progress of such students" (SVHS, 2018c, p. 2). Policy IA (SVHS, 2018c) goes on to highlight the requirement for "early identification, diagnosis, and assistance for students with reading and mathematics problems" and explains the provisions of instructional assistance "shall be designed to aid students in their educational, social, and career development" (p. 2).

Policy IGBE (SVHS, 2018d), Remedial and Summer Instructional Program, details the development and implementation of research-based programs designed for

prevention, intervention, or remediation for students who are educationally at risk, including but not limited to those who fail to achieve a passing score on any Standard of Learning assessment in grades three through eight, or who fail an end-of-course test required for the award of a verified unit of credit. (p. 1)

This policy also addresses the requirement of remediation for students in grades 3–8 who do not pass one or more of the SOL assessments or students in high school who fail an end-of-course test required for attainment of a verified credit. Policy IGBE (SVHS, 2018d) states, "The superintendent requires such students to take special programs of prevention, intervention, or remediation" (p. 1). Implementation guidelines are also provided, highlighting the requirement of "early identification of students who are at risk of failing" and the selection of remediation programs that are "chosen by the superintendent to be appropriate to the academic needs of the student" (SVHS, 2018d, p. 1). This policy outlines program evaluation guidelines and states, "The School Board annually evaluates and modifies, as appropriate, the remediation plan based on an analysis of the percentage of students meeting their remediation goals and consideration of the pass rate on the Standards of Learning assessments" (SVHS, 2018d, p. 2).

Policy IKG (SVHS, 2018e), Remediation Recovery Program, "encourages successful remediation of students who do not pass certain SOL tests in kindergarten through grade 8 and high school English and mathematics" (p. 1). This policy also requires schools to "maintain evidence of a student's participation in a remediation recovery program along with the scores of any SOL tests taken following remediation in the student's record" (SVHS, 2018e, p. 1). This collection of evidence should be incorporated into the training and professional development

outlined in Policy GCG, Professional Staff Probationary Term and Continuing Contract (SVHS, 2018a), and Policy GCL, Professional Staff Development (SVHS, 2018b), as these provide personnel guidelines related to the implementation of a remediation program. This policy states, "In order to achieve continuing contract status, every teacher must successfully complete training in instructional strategies and techniques for intervention for or remediation of students who fail or are at risk of failing the Standards of Learning assessments" (SVHS, 2018a, p. 1). It goes on to explain, "If such training is not offered in a timely manner, no teacher will be denied continuing contract status for failure to obtain such training" (SVHS, 2018a, p. 1). Policy GCL (SVHS, 2018b) addresses the training requirement in Policy GCG (SVHS, 2018a) and mandates the provision of "high-quality professional development" to all professional staff to assist in "the use and documentation of performance standards and evaluation criteria based on student academic progress" (p. 1). This policy states that programs will be designed to "promote student achievement at the school and classroom levels" (SVHS, 2018b, p. 1). Policy GCL (SVHS, 2018b) also provides an outline of what high-quality professional development programs entail including "instructional content; methods for assessing the progress of individual students; instruction and remediation techniques in English, mathematics, science and history and social science; and interpreting test data for instructional purposes" (p. 1).

Comprehensive six-year plan. The 2012–2018 Comprehensive Six-Year Plan outlines the strategies that will be implemented to meet the measurable goals set forth by the school division. The first goal is related to student achievement and curriculum and instruction, and states that the

staff will engage every student in meaningful, authentic, and rigorous work with high expectations through the use of innovative instructional practices, a guaranteed

curriculum, and supportive technologies that will motivate students to be self-directed and hard-working in a professional learning community. (SVHS, 2012, p. 1)

One of the implementation strategies identified to meet the needs of the underachieving student population is to "provide direct and specific remediation in low areas" (SVHS, 2012, p. 1). Another strategy related to this specific goal highlights the need to "provide staff development on differentiated strategies designed to address the achievement gap between white and African American students" (SVHS, 2012, p. 1). While this goal also states the need for an after school remedial program, there is no mention of an in-school remedial program such as the AA program provided at the high school.

Academic Advancement planning form. The Academic Advancement planning form is a comprehensive packet that includes a data tracking form and guidelines for the remediation program. The data tracking form allows teachers to track individual student progress towards targeted skills on a weekly basis using a rating system of A (absent) / 1 (does not grasp content) / 2 (continued support) / 3 (confident of proficiency). The guidelines provided within this document state that teachers will meet every Thursday to briefly discuss students, their current ratings, and share ideas related to specific content. Teachers from common content areas are also tasked with deciding what the rating system will look like in regard to student achievement.

This form provides targeted dates by which teachers will meet to discuss and plan for the remediation time. During this time, teachers decide on the norms and expectations for AA, specifically what it should and should not look like. Teachers also review the students assigned to the remediation and finalize plans for implementation. Teachers were instructed to meet at the beginning of the second semester to decide upon and develop a resource list. Discussions

revolve around the reason for teaching specific standards and the corresponding benefits to student achievement.

The school's Building Leadership Team (BLT) takes a leading role in the AA program. The planning form serves as a guiding document to help the BLT members through the planning process. Specific guidelines for the remediation program include establishing the time allotment for the program, providing the directive that this program will target individual student needs for all students within the school including advanced students, increasing the focus on meeting IEP goals, maintaining a focus on full staff participation, and highlighting the need to consider teacher / student relationships during the placement process. The established schedule for the AA time is noted as every Wednesday beginning in January and running through May, with Session 1 running from mid-January to the end of February. The school online scheduling system, PowerSchool, is used to track student schedules and their specific academic needs. Students will receive a pass / fail grade for AA and this grade will be reflected on their report cards.

This document also outlines the planning process for teachers to work within their AA teams to analyze data and determine the greatest needs among their assigned students. This data analysis and identification of needs will result in the team creating a response plan. To effectively monitor and track student progress, the AA team will briefly meet weekly to discuss student progress and instructional strategies. The team will also be given the opportunity to discuss student placement based on strengths and weaknesses. The document also provides teams with a standards-based form that teachers will use to break down specific instructional strategy of the standard.

Teachers are also given information on best practices in regard to meeting student needs in the classroom. These include allowing students more choice in classroom assignments and materials to better adapt to their specific learning styles and needs. Teachers are also encouraged to integrate more technology in the classroom in an effort to connect students to the real world and further increase the number of resources available to them. Allowing students to work in collaborative settings with their peers is also highlighted as students are social learners and can learn from other students. Instructional practices should also take into consideration individual student ability as well as a student's prior knowledge. Students should be encouraged to set specific learning goals as one way of increasing confidence and energy in the learning process. Out-of-the-box teaching is an expectation and a means of promoting creativity and encouraging students to explore the many possibilities related to their learning. This includes allowing students to complete learning projects that have personal meaning to them and highlights their individual interests and abilities. This process also supports the use of self-assessment as a way of teaching students to be conscientious of their own learning.

Classroom Observation

The classroom observations were performed as a way to gather "invaluable information that can complement other data points and allow for deeper insight into the case study" (Yin, 2018). These observations gathered information regarding classroom structure, instructional purpose, and teacher and student behavior and activities. Information from these observations highlighted the level of teacher engagement and support, the communication of learning targets, and the level of adherence in establishing protocols or procedures (Fisher & Frey, 2010). Observations were scheduled with each teacher participant and the data were collected on the Classroom Observation form provided in Appendix C. A discussion of each observation is provided below as well as an examination of how the remediation practices align with the policies and procedures set forth by the school and the school division.

English teacher 1 observation: Six students entered the classroom and took their seats at a computer station. English Teacher 1 was working collaboratively with another teacher, providing students with writing practice for the WorkKeys writing assessment. This was the first day of AA and the teachers explained to the students that they would be working on identification of the key parts of writing prompts. Students were given a handout that identified the key parts of a written prompt and a worksheet containing a practice writing assignment. There was no pre-assessment for this remediation other than the student performance on the previous English 11 SOL test. The WorkKeys assessment serves as an alternative writing assessment for students who have demonstrated difficulty in passing the English 11 SOL test.

The teacher discussed with the class the purpose of the AA remediation session and explained the WorkKeys assessment. English Teacher 1 handed out the packets and began to review the prompt with the students. She asked questions regarding audience, verb identification, writer's role, and a discussion of identifying the argument being made. She asked the students to explore a little deeper and explain whether they agreed or disagreed with the argument. During the discussion, the co-teacher worked to write the information on the board. Students were interacting with the teacher by participating in the discussion. Prior to the beginning of the observation, concerns were noted from the teachers regarding their inability to meet and plan with one another. Neither teacher was aware of what the other had planned for that remediation session until about five minutes before class. Teachers were actively engaging in conversation with the students and clearly defined the intended learning outcomes.

English teacher 2 observation. English Teacher 2 was working with students to help them improve upon their test taking skills, specifically with the multiple choice questions on the Grade 11 Writing test. There were 16 students in this session but several of these students did not belong in this group but rather were sent there due to a lack of coverage in another remediation session. Regardless, all students worked on the worksheet packets that contained a reading selection with comprehension questions. Students were selected for this group based on the scores from the Grade 8 Writing SOL. During the observation, the teacher continuously moved around the room and checked on the students' work as they progressed through the packets. She encouraged students to work collaboratively and offered assistance when students were challenged with unfamiliar terms. She checked on their work as they finished and either had them redo incorrect work or allowed them to read, write, or complete unfinished homework during the time remaining if their work was correct. Students worked to complete the activity. There was very little collaboration among the student groups and therefore difficult to determine the level of engagement during this activity. Students did seem to understand the procedures of having their work checked before moving to the next section and what the teacher expected of them as far as their behavior during the AA time.

English teacher 3 observation. There were seven students in this remediation session, sitting in two groups of three with one student sitting alone. Students were working on improving their knowledge of literary terminology. The teacher played a YouTube video of how to play a card game named "Spoons." Students were given several literary terms on different index cards as well as a stack of matching definitions on separate cards. Students competed against one another in their groups to match the term with the definition. This was an elimination game that ended with two students competing with one another. The student sitting

alone worked to finish make-up work. The students involved in the game were highly engaged and having fun with the activity. The teacher moved between the two groups and offered the students a cheat sheet with the terms and definitions in case they needed hints. There seemed to be a strong connection between the teacher and the students and mutual respect among everyone in the classroom.

English teacher 4 observation. This teacher was also working with students to increase knowledge of literary terms. There were nine students in this session working individually as well as in groups. The students that were working individually were working on make-up work and missing assignments. There were three groups of students working collaboratively to match the terms to the definitions. The class seemed a little chaotic in the beginning as the teacher tried to discuss a progress report with one student while another student interrupted her multiple times in an effort to get out of the class. The teacher worked to get the one student organized and started on her make-up work and then moved on to get the groups set up with their matching activity. The teacher moved between the groups and offered assistance through the use of the emergency answer key. The individual student that was eager to leave was finally allowed to leave after working in his group for about five minutes. While the teacher worked tirelessly to move between students and help when needed, the students did not seem very engaged with the learning activity. This classroom was not as highly structured as the other rooms visited.

English teacher 5 observation. This teacher had three students in her session working to evaluate anchor papers using a given rubric. Students had been selected for this remediation session based on a writing sample they completed earlier in the year. During this observation, the teacher moved around the room and assisted students as needed. She kept track of the time and prompted the students as to when it was time to move to the next anchor example. After the

final anchor was evaluated, the teacher asked the students to share their evaluations by a show of fingers for the ranks of one, two, or three. As she went through each anchor, students shared their answers and they discussed with one another how they came up with their rankings. The teacher used appropriate timing to expand upon her lesson and provide deeper lessons as student questions arose during the activity. One such opportunity presented itself as the student identified a writing sample as vague. The teacher had him explain what he meant and then discussed with the class the use of purposeful language and effective transitions. She used the students' answers to lead into discussions about writing in order to make further connections with the students. English Teacher 5 was very encouraging with her students and verbalized her appreciation for their hard work. The procedures in this remediation session were evident as the teacher maintained a timely schedule of activities and kept the students on track even though she would sometimes veer away from the lesson in order to make critical learning connections. Students were engaged in the activity and the teacher worked hard to make all students comfortable in providing answers.

Math teacher 1 observation. This remediation session began with 13 students but 3 of those students were called out by another teacher to finish a quiz. Math Teacher 1 explained to the class that they would be reviewing and practicing congruent triangles and this information was also posted on the board for students to see. He used technology in the classroom such as the Promethean board and electronic answer clickers to track student progress on the math problems. The teacher began with a discussion of how to recognize postulates and students responded with appropriate answers with minimal teacher prompting. The teacher was well prepared for the lesson with the appropriate materials and was knowledgeable with his content. As multiple choice questions were presented to the class, students used the clickers to provide

their answers, giving the teacher the feedback to determine whether he could move on to the next concept or if the class needed more review in order to master the skill. Students also worked with a partner on a hands-on activity and discussed the problems with one another. The teacher circulated throughout the classroom and assisted students when needed.

Math teacher 2 observation. This remediation session consisted of Algebra II students reviewing concepts learned in the regular classroom setting, specifically reviewing how to simplify radical expressions. Students were moving around the room individually as well as with partners, solving a series of math problems that were posted around the room on flashcards. The teacher circulated around the room, checking on student progress and answering questions when needed. He stated that the data used for this group came from a released SOL test that was administered at the beginning of the semester. When students completed the assignment, the teacher reviewed the work and gave it back for corrections. Students were collaborating with one another to solve the problems and discussed the mistakes they made on the incorrect calculations. This was a highly engaging activity and the teacher seemed to have a good relationship with his students.

Math teacher 3 observation. This teacher had 16 students at the beginning of class, four of whom were later called to do work in a different remediation session. Students were individually and collaboratively working on systems of inequalities and graphing their math problems. Students used iPads and the online Desmos calculators to solve the problems. The teacher circulated through the classroom and offered positive encouragement to all students and sat with one particular student in an effort to get him motivated. Students followed the teacher's directives as they worked through the problems. Of the 12 students, 2 were not engaged in the

activity while the others worked to complete the assignment. One student tended to distract the others as he sat at the teacher's desk not really engaged in any activity.

Math teacher 4 observation. This teacher worked in a collaborative remediation setting, also working with students on Algebra I, specifically graphing inequalities through the use of the iPad and graphing paper. The teacher stated that she usually called students for small group remediation but would be working with another teacher in a whole group setting for that day. This teacher walked around and monitored student progress, offering assistant and positive encouragement regularly. Math Teacher 4 also used mathematical terminology when discussing the problems with the students. The activity the students worked on was a skills-based assessment rather than direct instruction or review.

Math teacher 5 observation. This remediation session focused on Algebra I, specifically strands A.2, A.4, A.5, and A.6. There were 11 students sitting at individual desks completing an Algebra assessment. The teacher moved from student to student, offering guidance but not giving students the answers. One such example of this type of guidance is when she stated to a student, "What can you do with that information to find 'A'?" She announced how much time students had to finish the assessment. As students completed the assignment, they turned in their work and the teacher quickly graded their answers. She returned the assessment to the students within minutes and asked the students to correct their work. Students were engaged with the activity and seemed more focused as they tried to get the right answer the first time.

Math teacher 6 observation. This observation took place in the hallway outside of the classroom belonging to Math Teacher 6. Students were completing a review activity related to quadrilaterals. Most of the students worked in groups while a couple worked individually. The

students rotated through the various activity stations posted on the walls along the hallway. The teacher moved among the students and provided assistance when needed. One student questioned how to solve one of the problems and the teacher pointed out that she needed to read the entire question in order to understand how to solve the problem. After re-reading the question, the student was able to successfully answer the question. The teacher explained that sometimes providing students with advice on effective test taking strategies was necessary for helping them on the SOL. Students were highly engaged with this activity and could be heard discussing the problems using the correct mathematical terminology. The teacher continued to offer positive feedback and encouragement, especially with one young man who, according to the teacher, does not typically work to that level.

SPED teacher 1 observation. This teacher was working in a collaborative classroom with a general education teacher. After presenting the goal of that particular remediation session, they began to work with students to prepare them for the WorkKeys assessment. Even though it was stated that the two teachers did not have sufficient time to co-plan with one another, they seemed to support one another in the classroom and work as a team to provide assistance to the students. As the general education teacher discussed writing prompts with the students, SPED Teacher 1 wrote key terminology related to the discussion on the board. She also participated in the conversations and guided students through the provided writing prompts.

Teacher Interviews

After conducting the classroom observations, follow-up interviews were scheduled with each teacher. The semi-structured interviews consisted of questions related to teachers' experiences with remediation, their level of preparedness in implementing effective remediation, and their overall perception of the program. The interview questions were created to reflect open-ended questions in an effort to give the teacher a voice and provide the opportunity for an explanation or discussion of the completed observations (Stake, 1995). Each interview was recorded using a voice recorder program on an iPad. The recorded interviews were then transcribed verbatim into note form. Questions 1–4 were specific to the teacher's background and personal experiences with remediation programs. Questions 5–7 were probing questions to better understand the level of knowledge the teacher had regarding the remediation program expectations and procedures and their personal opinion of the actual practices as they related to the expectations. Questions 8–12 explored the availability of training and resources. Question 13 was an extension of the observation and allowed the teacher to provide input regarding the classroom observations. Questions 14 and 15 explored the teachers' perceptions of the remediation program and gained insight as to how they felt the program could be improved. Responses to the following questions were recorded as follows:

Question 1. *Please state your name and the grade level and subject you teach.* Individual teacher responses are provided in a bulleted list below replacing the teachers' names with the selected pseudonyms.

- English Teacher 1, Grades 10–12, English / Language Arts
- English Teacher 2, Grade 11, English
- English Teacher 3, Grades 10–12, English
- English Teacher 4, Grade 9, English
- English Teacher 5, Grade 9, English
- Math Teacher 1, Grades 9–12, Mathematics
- Math Teacher 2, Grades 9–12, Mathematics
- Math Teacher 3, Grades 9–12, Mathematics

- Math Teacher 4, Grades 9–12, Mathematics / Special Education
- Math Teacher 5, Grades 9 and 11–12, Mathematics
- Math Teacher 6, Grades 9–11, Mathematics
- SPED Teacher 1, Grades 9–12, Special Education

Question 2. *Please explain your educational philosophy and what shaped your views as an educator.* When asked to explain individual educational philosophies, teachers provided the following answers:

- English Teacher 1: "I believe everybody can be successful."
- English Teacher 2: "Everybody learns differently, everyone is going to meet different expectations."
- English Teacher 3: "Constructivist. Hands-on learning."
- English Teacher 4: If students "believe that you care about them beyond how they're performing in school, then they'll do better in your class, they'll give more effort and perform better because they're going to feel better about themselves."
- English Teacher 5: "Every student can learn, but learning for every student doesn't look the same."
- Math Teacher 1: Believes in being a "guide, not here to show you exactly what you have to do for every single step."
- Math Teacher 2: Believes in the power of fighting through a problem and fighting through the confusion in order to learn.
- Math Teacher 3: "To help the kids do their best and always be positive and confident in themselves."

- Math Teacher 4: "To reach every student."
- Math Teacher 5: Highlighted the importance of teamwork and building "confidence in the classroom."
- Math Teacher 6: Strives to "teacher the students to be lifelong learners."
- SPED Teacher 1: "Focuses on the students as far as giving them the tools to be productive people after they leave school."

Question 3. *How did your teacher preparation program prepare you in providing RtI and / or Tier 2 remediation?* Not all teachers received official training in RtI and / or Tier 2 remediation practices while in formal teacher preparation programs. English Teacher 1 described how her teacher preparation program prepared her in providing Tier 2 remediation. She explained that she was involved in a "couple of projects where I did remediation" but that her experience was a "trial by learning in seeing what worked and what didn't work." She did not mention anything by way of formal instruction in providing Tier 2 remediation. English Teacher 2 was similar in that her training was self-motivated and she stated, "most of the work that I was able to get regarding intervention and remediation was in the research I did myself when I had to incorporate remediation into a school day."

English Teacher 3 described her teacher preparation program as helpful in preparing her to provide Tier 2 remediation to students. Receiving instruction through a master's degree program specifically for special education taught her "how to go through the steps for special education referral." English Teacher 5 also explained that her teacher preparation program allowed her to complete a practicum "where you are student teaching and observing." She went on to explain that another aspect of the program required her to "choose an after school program to be involved with." She stated that this program "really prepared me because I was tutoring students on all subjects and pretty much all different grade levels." She felt this program helped her learn how to quickly identify individual student needs and provide them with the necessary help to build upon weak skills during a short time frame. She explained how this has helped her in her current assignment and stated, "I really applied that fast check with the Academic Achievement (AA) system that we have because we never know who's going to be in those groups until we are assigned them." She went on to say, "Thinking on your feet and being able to adapt to what they need for that day is very important."

The mathematics teachers did not recall specific training in RtI / Tier 2 remediation in their teacher preparation programs. However, Math Teacher 3 explained that her teacher preparation program taught her to focus on student data and the individual need of each student. Similarly, Math Teacher 5 described her teacher preparation program as one that focused on analyzing data. She felt this component of the educational program had prepared her "to assist students in weak areas." She also explained her field experience while in college helped prepare her as she "was able to help out at a middle school" and provide "remediation after school."

Question 4. *What is your experience with RtI and Tier 2 remediation programs?* English Teacher 1 explained that her work experience with Tier 2 remediation revolved around her current school assignment, beginning with "remediation for the kids who were taking the reading and writing SOLs for English 11." This focus has since changed as she currently provides remediation for students seeking to pass the Work Keys assessment, an alternative assessment to the reading and writing SOL tests. English Teacher 2 described a more experienced history with Tier 2 remediation as it involved her work as a middle school teacher. She explained, "Whenever we were going to refer a student, we had to show evidence of RtI, Tier 2 remediation before they would even be considered for special education services." English Teacher 2 translated her experience in remediation at the middle school level to her current assignment at the high school, even though referral at the high school level is not a common occurrence as students "have already been identified."

English Teacher 3 explained that her work experience has further helped her at the high school level as she is part of a collaborative classroom where the teachers work with all students "regardless of whether than have an IEP accommodation or not." The ability to work with all students has helped highlight the need to examine the strengths and weaknesses of each individual student within her classroom. English Teacher 4 described her first year as "a learning curve" and explained that she "learned a lot from my colleagues in the English Department, specifically in how to address it when a student is falling behind." She learned that by grouping students with similar weaknesses, she was better able to efficiently provide the necessary help to her students.

Math Teacher 1 discussed his current work experience and he explained that the common planning time was helpful, "especially with our veteran teachers helping a lot with different strategies with scaffolding and with re-teaching methods." He also added that his co-teaching experience had been helpful with providing remediation. Math Teacher 2 stated his first exposure to remediation and using data was difficult as he "learned it the hard way." He added that while he may not currently have an SOL course, the time he has with his AA class is used to build upon the knowledge and understanding from his regular content.

Several teachers described a limited work experience in relation to Tier 2 remediation programs. Math Teacher 3 explained that she really didn't have any work experience beyond the AA program and that her current assignment "was kind of handed to me and I ran with it." Math Teacher 4 also described a limited work experience with remediation but that she does utilize the school's data system to analyze data and design a program that fits the individual need of the student. Math Teacher 5 stated that while her work experience was limited, her students had demonstrated an increase in performance which she attributed to the ability to work with her colleagues within her department. Math Teacher 6 stated that even though she had limited work experience, she did play a part in building the current remediation program. She stated, "We had to come up with a remediation plan for our at-risk kids or the kids that were on the bubble." She explained that the plan had been revised over the years based on the individual needs of the students.

SPED Teacher 1 stated that it was a "learn as you go type of situation." Her work experience at the high school focused on providing students with assistance through the collaborative teaching model. She stated that remediation often times occurred during "pull out for smaller group instruction or one-on-one" to provide students with strategies to help them improve in academic areas such as reading.

Question 5. *Why is remediation implemented in your classroom?* Responses to this question revolve around two specific concepts: helping students improve upon their weakest academic areas and individualizing instruction based on student need. Only one teacher specifically mentioned the use of data in determining student need. She stated that in addition to the review of academic data, "we could see they were struggling in class more and we felt they needed the extra one-on-one attention or small group attention." Another teacher stated that remediation "helps kids with their weakest areas" and provides "more of a differentiated time so every kid can focus on what they need to focus on." Other teachers also discussed the benefit in providing the extra one-on-one help to address specific weaknesses. Math teachers seemed to agree that the remediation program was important in helping students "fix the problem so they

don't get out of hand." The concept of individualized instruction was also a common factor that was repeated by many of the teachers. One teacher highlighted the importance of having small remediation groups and individualizing the instruction and stated, "We have to be successful and I think it has to be individualized."

Question 6. Please explain the expectations and procedures for the remediation program. Teachers discussed their understanding of the expectations and procedures for the remediation program and one common understanding was that the remediation time was not intended for a continuance of classroom instruction. Teachers are expected to provide students with enriching and engaging activities based on the student's individual need rather than just worksheets that they would do the in regular classroom setting. The focus is to prepare students for the SOL assessment. One teacher stated her goal is to "keep them working from bell to bell and to have something other than worksheets, something to try to keep them interactive, something outside-the-box type of teaching." Another teacher stated, "The expectations are that everybody is engaged, it's not just a study hall." Other teachers mentioned the ability to pull students from other classes to work with them on specific weaknesses. She stated, "You are allowed to pull certain kids so if they are absent and need to make up work or are struggling." Some key words and phrases the teachers used to describe the overall program were "purposeful," "measurable," "interactive," "outside-the-box teaching," "remediate and enrich," "engaged," "structured," "beneficial," and "tailored."

Some teachers also expressed concerns with the expectations and procedures. One teacher explained that her responsibility is to provide extra practice for the SOL test but expressed concerns with the lack of administrative supervision in the program. She stated, "There's not a lot of oversight and I think that creates some inequality between classrooms."

Another concerning aspect is that not all teachers had the same understanding of the expectations and procedures for the AA program. One teacher explained that the goal for that current session was enrichment and then the fourth session would be a time for remediation to help students prepare for expedited retakes. She explained, "The main goal of the remediation for this nine weeks was to enrich on the concepts being taught in class."

Question 7. How do these expectations / procedures compare to actual practices? There were a variety of opinions related to the perceptions of how the expectations and procedures compared to actual practices. To review what the teachers' beliefs of the program expectations and procedures were, the key concepts included out-of-the-box teaching, engaging activities, individualized instruction, measurable and purposeful activities, and something other than worksheets and normal classroom activities. Those that felt the program was running according to the expectations mentioned the practices of tailoring the remediation work to fit the students' needs, requesting students as needed to work with them in their weakest academic areas, and providing structured activities. One teacher stated, "About 90% of the time I do remediation" with the remaining spent on enrichment activities to open "their eyes to see why we did what we did." Many teachers agreed that the time was well spent in their remediation setting and that was made possible through the changes implemented with this year's program. The major change was that students were previously assigned to a session without the possibility of being called out to another class to make up missing work. One teacher explained, "I had kids who would have flown through, they did not need this remediation, and yet they were put in there with me." She went on to state, "This year I think this is much better for me." Another teacher agreed that having the flexibility to request students was a benefit in helping students

struggling with specific concepts. The benefit of this is that students get help for academic weaknesses as they occur rather than waiting for a new remediation round to begin.

While Tier 2 remediation is intended to provide a system of supports through the provision of targeted remediation (Grosche & Volpe, 2013), it is not intended to be used as a study hall. It is evident through the teacher interviews that teachers understood the expectation of not providing a study hall but rather engaging remediation aimed at helping students improve upon weak skills. However, over half of the teachers participating in this study admitted to using the remediation time with their students to complete make-up work rather than working to remediate targeted skills. One common reason given for this practice was due to student absences. As one teacher explained, "I may have a student this week that's missed X amount of school so he's doing makeup work." Another teacher discussed why she pulls students and stated, "to work on whatever it is that they either need to make up or retake if it is a guiz they've not done well on." But some teachers did indicate that they request students with the specific intent of helping students improve upon their weakest skills. She stated, "I pulled those that were struggling with the concepts." And while there is a good crosswalk of understanding between what the expectations are and how to fulfill those expectations, there are some areas of weakness that exist among this remediation program. This realization is evident among some of the teachers as one even stated in response to Question 7, "I think that it is inequitable." One teacher also explained that some students complained to her that remediation "is kind of just another 50 minutes where they're working on something they still don't get at the end of the class."

Question 8. *Please describe the training you received in order to provide remediation to students.* There was an overwhelming commonality in the responses for Question 8. When

asked to describe the training received in order to provide remediation, teachers stated either there was no training provided and / or they either "figured it out on their own," or they worked within their departments or with peer teachers to co-plan for the remediation. There was no mention of formal training provided to staff members even though the school division has a policy in place, specifically Policy GCG, Professional Staff Probationary Term and Continuing Contract (SVHS, 2018a) stating that "every teacher must successfully complete training in instructional strategies and techniques for intervention for or remediation of students who fail or are at risk of failing the Standards of Learning assessments" (p. 1). Policy GCL, Professional Staff Development (SVHS, 2018b), also outlines the requirement of the Board to provide "teachers and principals with high-quality professional development programs each year" in "instruction and remediation techniques in English, mathematics, science and history and social science" (p. 1). It should also be noted that teachers overwhelmingly supported the co-planning process and found great benefit in this practice.

Question 9. *What resources do you feel are necessary for successful remediation?* Teachers provided several different resources that they felt were necessary for successful remediation. These included time, technology, data, opportunities for co-planning, small class sizes, and access to released test questions. The issue of time revolved around two different aspects, one of which was having adequate time with students and the other was having time to collaborate and co-plan with other teachers. One teacher explained the extra time with students would be beneficial if "there's a way to maybe minimize the additional students who aren't particularly motivated and don't necessarily need the remediation in that class." Several teachers also agreed that having extra time to co-plan for the remediation would be beneficial. Teachers explained, "We need to have a time where we can talk to each other" and that co-planning would be helpful when done with "veteran teachers, people that have done successful remediation in the past."

Technology was also identified as a necessary resource. Several teachers explained that technology allows the students to play games that are interactive and that focus on SOL preparation. It was stated that these online games were helpful as students are "still getting the concept and they're still getting the practice but we're playing games while they're doing that." Another teacher also explained that having available technology helps her students by giving them the opportunity to practice their writing. As explained in a previous question, one teacher stated, "So I would literally sit, using Google Classroom, sit with them with their laptop, me at mine, and we would talk and fix things as we went along line by line." Several teachers also highlighted the importance of having data available to them including writing samples and data reports from students' previous SOL scores. One specific teacher explained that the students in her remediation session were not in her normal classes. She stated, "I don't teach any of my remediation kids in class so their homebased Geometry teacher shares testing data with me."

Question 10. What resources are available to you? After asking teachers what resources they felt are necessary for successful remediation, they were then asked to describe the resources that are actually available to them. The three main resources mentioned by the teachers were technology, data, and opportunities for co-planning. Many teachers explained that they have some access to iPads and computer labs. A math teacher stated, "We get technology every now and then" and went on to explain that "the math department has iPads to share." There were several comments by the math teachers regarding the frustration of having to share one iPad cart when just about everyone within the department needed them on a regular basis. One teacher also mentioned the use of a shared Google drive within her department. She
explained, "We have that Google drive, anything that was presented in common planning or talked about in the department meeting or faculty meeting, they upload everything on there."

Access to data was also something many teachers agreed upon with one teacher stating, "We have access to data and our data coach actually goes over the data for us and kind of highlights what kids need." Other teachers mentioned their ability to "track student scores" and use Google classroom to continuously monitor their work. In addition to the data coach providing data to the teachers, it was also stated that "data is definitely available to me and I could ask for it but like I said, the homebased teacher always does provide that."

And while there were not many responses that specifically mentioned a structured coplanning time, there were a few teachers that mentioned their practice of working with others in their department. One teacher stated, "Professional development days we've used before for creating pacing guides and for creating curriculum as well as remediation." Another math teacher also discussed his department meetings and said, "We will collaborate and come up with different stuff." There were a few teachers that also mentioned the ability to collaborate with the data coach and one teacher stated, "If you reach out to him, he will look for extra resources for whatever type of activity or lesson that you're planning."

Question 11. *How do these resources support you in providing effective remediation to students?* When asked how the resources mentioned in Question 10 helped teachers in providing effective remediation, the responses focused mainly on the ability to provide students with differentiated instruction aimed at helping them with their weakest areas. One teacher stated, "The data really helps with the kids being able to do what their weak areas are and the technology helps with differentiation." With a mixed ability group of students with very different needs, having access to the data as well as to technology allows teachers to really

"know the students' specific weaknesses" and "have different activities pulled or planned to focus on what they need." Individual test scores also help teachers better identify a student's weakness; as one teacher explained, "Knowing where they are helps me know what I need to focus on." Teachers also stated that technology helps students practice for the upcoming SOL tests and also helps increase student engagement during remediation. One teacher explained that students are able to work on their laptops in preparation for the writing SOL. This allows them to engage more in the remediation as they get firsthand knowledge of what to expect on the SOL and can have the hands-on practice with it.

Question 12. *Explain how you measure student success with your remediation program.* While the Academic Advancement planning form provides teachers with a formal record for tracking and recording student data, there was no mention of using this specific form. Teachers did provide several different examples of methods they use to measure student success in their remediation programs. These included tracking whether they passed the SOL or End-of-Course assessments, the use of the pass/fail grading system that measures completion of work, attendance and student effort, tracking student progress in the regular classroom as compared to progress in the remediation program, and comparing previous test scores on SOL tests and pretests to current scores. One teacher explained her process of evaluation as a "bunch of formative assessments, walking around, kind of seeing what they can do on their own based on where they are." This particular teacher uses the data she collects to monitor student improvement. Another teacher stated that she keeps "records of the work they do" and that her process of observing them as they work also helps her in knowing what they need. The comparison of student progress was also discussed by another teacher as she stated, "The best way for me to do it is to compare what they've done in remediation to what they do in class." Documentation of progress was also mentioned by a teacher as a weekly process as she documents "what they've done and how they've fixed that problem" in order to monitor student progress.

Even though data tracking is a vital component to Tier 2 remediation programs, some teachers opt to use an informal system of tracking student progress. One teacher stated that it was "loosely structured" and success was determined based on the student's grade book. In this particular case, the student completed make-up work in order to bring her overall grades up during remediation. The teacher stated, "I printed out her interim and I highlighted the things that are sort of high priority, things that need to be redone, retaken."

Question 13. What are your thoughts regarding today's remediation observation? Teachers were given the opportunity to provide feedback on the classroom observation. This question served as an extension to the classroom observation, giving teachers a voice to share their thoughts and ideas related to what was observed in their classrooms. One teacher explained that, being the first day for that AA session, it was also the first time she had worked with a collaborative partner. She explained that the session was better than in the past as there were two teachers and fewer students. Another teacher commented that her students "didn't do anything differently than if you were not here." She explained that her students are well behaved because she has "established that classroom environment very early on so they know what is expected of them." One of the math teachers clarified that the activity the students were completing during the observation was a review of the content for an upcoming test. Another teacher commented that the remediation session went well as student groups were working collaboratively with one another and working to solve the given problems.

Some teachers expressed frustration with the mixed abilities classrooms and having some students who need remediation while others need enrichment. One teacher commented, "The

111

biggest thing for me was so much happening at one time." Another teacher also mentioned working with a collaborative partner on the day of the observation and explained that there were a few issues with that particular remediation session. She stated, "There were some students who weren't putting forth full effort." She also attributed some of the behaviors to the mentality of ninth grade students and the false notion they bring from the middle school that "it's playtime." Another teacher shared that the resources used in that remediation session were not effective and stated, "We regrouped and in the end that didn't make or break the activities that we did."

Question 14. What is your overall perception of the strengths and weaknesses of the remediation program? There were a number of perceived strengths of the remediation program as reported by teachers. One such strength was reported as having an actual program in place where "they try to organize it in such a way so it is meaningful for the students that are in it." This same teacher noted that "everybody is involved" as administrators and guidance counselors all have classes. Overall test score improvement was also noted as a specific strength of the program along with the ability to work with students to make up missing assignments. Another teacher noted the positive aspect of providing a program during the school day when students are already in school and stated, "I think it has been a benefit in that we are reaching more students for remediation than before because they're already here." Flexibility was also listed as a strength by multiple teachers as they have the ability to pull students into their remediation when needed. One teacher stated, "I definitely think that the strengths are the flexibility as far as I can pull who I need to pull." Another strength discussed was the fact that the program changed this year to assign teachers to areas of their specific SOL. This teacher explained, "When we first

started this program, we had non-SOL teachers trying to remediate for SOL classes." Now the program allows everyone to be on the same page with working in their content areas.

While the ability to request students to work with them in specific remediation areas was noted as a strength by several, not all teachers agreed with this idea. One teacher explained, "One of the weaknesses of how the program works here is that we may not have the same student every week." She went on to say, "If I have a student one week, he might get pulled the next week and so I lose that remediation time with them." This same concern was noted in another teacher's response when she stated, "Our kids are handpicked by our data coach based on what he thinks and every week that could change on our end." One teacher expressed her frustration with the practice of pulling students and stated, "One of the things I'm not sure is going to work is that people are allowed to take my student out if they feel like they need to remediate them and I'm going to make it darn clear that you better not take mine out." Unfortunately, the reality of the situation is that most of the students in need of remediation in one area also need remediation in other areas. Teachers are struggling to figure out how to make the remediation program work as they only have one day each week with the students and the students need more time in remediation. The limited time available to remediate students is also a concern for a teacher who mentioned that student discipline resulting in suspension causes students to miss out on critical remediation opportunities. One teacher noted, "The other weakness would be you are only as good as your weakest link." She explained that it was her hopes that all classrooms were "doing what they're supposed to be doing so that the whole thing is working cohesively." Another teacher agreed with this by stating, "I think that without more administrative oversight it will continue to be used by few and exploited by many." This leads to the question of whether the role of administration is best served in the classroom working with students or overseeing the program and working with teachers.

Having mixed ability classes of students needing remediation as well as students needing enrichment was also noted as a weakness. One teacher explained, "I think it is also difficult with students who don't need remediation, per se, for a specific course, that they need extension activities." She went on to explain that the students in enrichment are allowed to hear guest speakers and play games while the students who need remediation feel like they are being punished by not being allowed to participate in the same activities. Several teachers also agreed that there needs to be equity among the classrooms.

Question 15. *What do you think could be done to improve the program?* Responses to this question varied among all teachers. More training on providing targeted skill remediation was a noted suggestion. One teacher stated, "I suppose we could have a little more training on remediation and research, things that have worked in the past with other school districts." In addition to more training, another teacher suggested that having more access to curriculum materials would also be beneficial. Several teachers also commented on having the ability to pick the students they work with each week. One teacher noted, "If they have the same teacher for every AA, every remediation period, it wouldn't be as confusing." Another teacher explained, "I could completely do all enrichment or all remediation and that way I don't have a mix in there because that's hard."

In addition to having more control over the student roster, teachers also mentioned the need to have more access to technology and more planning time. Teachers highly value the time they have to collaboratively plan with others within their departments. One teacher explained, "I think that we do a lot of these professional developments and year after year I'm hearing teachers

saying they want to have more time to plan and common plan." It was also noted that in addition to working collaboratively with other teachers, it would be beneficial to have a peer-to-peer study program where students from the advanced program could work with students in the remediation program. This teacher stated, "I think peers working together and students learning from one another could be a benefit rather than seeing the same teachers and working on the same thing together." Two teachers also mentioned the need for more administrative oversight as well as more teacher accountability. One teacher explained by saying, "Just more oversight which we don't want as teachers but there has to be some." Based on the comments, it seems that teachers do want more input from their administrators to not only ensure they are providing appropriate services but also to monitor the program to maintain a high level of implementation.

Themes

Four themes were identified in order to thematically code the documentation related to the program's guiding documents, the classroom observations, and the individual teacher interviews. These themes include professional development, common planning, mixed ability groups, and time. In order to effectively and efficiently code the data, the NVivo program was utilized. This program allowed for easy organization and identification of common themes and topics.

Professional Development

The school division has set forth several policies regarding the professional development for the remediation program. Policy GCG, Professional Staff Probationary Term and Continuing Contract (SVHS, 2018a), and Policy GCL, Professional Staff Development (SVHS, 2018b), both provide guidelines mandating professional development in instructional strategies and techniques for intervention and remediation. Policy GCL (SVHS, 2018b) also provides guidance for the professional development program, focusing on "instructional content; methods for assessing the progress of individual students; instruction and remediation techniques in English, mathematics, science and history and social science; and interpreting test data for instructional purposes" (p. 1). The Comprehensive Six-Year Plan (SVHS, 2012) also outlines this policy by directing the school to "provide staff development on differentiated strategies" (p. 1). While all of the necessary guidelines seem to be in place for a successful program, feedback from the teacher interviews suggest the need for more training and support prior to program implementation. Many of the teachers described their training with these words: "just kind of came up with our own thing," "I figured it out on my own," or "I didn't really receive any training." Several teachers also agreed in their statements that the training they received was more informal and gained through working with their peers. One teacher stated, "I've learned with six, seven, maybe eight different Algebra teachers so I can see the best way to teach the concept," while another teacher stated, "We got together with people that were teaching similar remediation classes." An English teacher also explained, "We met as a department for our department meeting and we came up with different strategies to use to remediate the students that we had." Math teachers also agreed with this concept and stated, "We work collaboratively as a math department." When teachers were asked what they thought could be done to improve the program, training was mentioned by several teachers as one such improvement. One teacher simply stated, "Training would be nice," where another teacher stated, "I suppose we could have a little more training on remediation and research, things that have worked in the past with other school districts."

Professional development and training in Tier 2 remediation is a vital component to the success of any Response to Intervention (RtI) program, including remediation programs.

Appropriate and effective training through on-going professional development and active participation throughout the process by school and division level instructional leaders are both noted as key factors in successful programs (Fisher & Frey, 2010). Studies show the most cited barrier to full implementation is a lack of adequate and effective staff training (Castro-Villarreal et al., 2014). It is evident that a sustainability plan is in place through the Comprehensive Six-Year Plan as well as the various division policies, but an in-depth evaluation of the actual professional development activities was not included in this study and is recommended for further research.

Common Planning

The Academic Advancement planning form is a tool the school uses to assist in the planning process for remediation. This form provides basic guidelines for the planning and implementation process that begins with data analysis. However, when asked what resources are necessary for successful remediation, teachers responded repeatedly with common planning. One concern noted from several teachers was the lack of necessary planning time with their co-teacher and departments. An English teacher noted that she and her co-teacher "do not have planning time together." During this classroom observation, the two teachers spoke briefly just minutes prior to the beginning of the AA session about their plans and compared the activities for the day that each had individually organized. Another teacher noted a lack of effective common planning and stated, "We need to have a time where we can talk to each other." While several teachers noted the need to have time to plan with their peers before remediation began, one teacher stated, "We have common planning every other Thursday" and that time was previously used to focus on "different assessments, formative and summative, and exit tickets had things to assess the students on where they were and how to remediate students." One

teacher reiterated the use of common planning to prepare for remediation whereas a different teacher stated that her common planning was "once a month."

The Comprehensive Six-Year Plan (2012) addresses the need for increased collaborative planning as part of the innovative instructional practices and states, "Increase collaborative teaming time K–12" (p. 2). The time line for this strategy is ongoing and it is the responsibility of the principals, the teachers, and division-level administration. Collaborative planning would also include mentoring programs for teachers which is also addressed in this plan as it seeks to expand the teacher mentor program (Comprehensive Six-Year Plan, 2012). Policy GCG (SVHS, 2018a) also provides details on the teacher mentor program: "A mentor teacher is provided to every first year probationary teacher to assist him or her in achieving excellence in instruction" (p. 1). Fisher and Frey (2010) found that teachers are able to fully embrace a formal remediation program when given the opportunity of ongoing collaboration and communication. Student support teams are often created to allow teachers the ability to collaborate about student achievement and generate academic solutions (Dulaney, 2012; Fisher & Frey, 2010).

Mixed Ability Groups

In regard to the implementation of the Tier 2 remediation program, one recurring theme was that this was designed for both remediation and enrichment and that each classroom consisted of a mixed ability group of students with a very diverse set of needs. Some students were advanced and needed an enrichment activity while others had demonstrated specific skill weaknesses and required targeted remediation. This was evident in several classrooms during the scheduled observations. English Teacher 3 had students completing an activity related to vocabulary terms and definitions while one student worked independently on a separate assignment. This teacher explained that all students need to review vocabulary so it is an easy

activity to use for a mixed ability group. English Teacher 4 also had a mixed ability group where some students worked on a vocabulary activity and others worked on enrichment activities or missing assignments. During this observation, English Teacher 4 constantly moved between the different groups of students to ensure they were all on task and doing the appropriate assignment.

The Comprehensive Six-Year Plan (2012) specifically addresses the instructional provisions for advanced students and states, "Increase and improve options of rigorous and accelerated learning programs" and this is to be achieved by increasing the "resource setting for advanced learners" (p. 2). There were several teacher comments regarding the practice of having mixed ability grouping in remediation classrooms. One teacher explained that the students were separated last year based on which groups needed remediation and which groups needed enrichment. She stated, "Everyone was assigned to a remediation teacher or an enrichment class ... it wouldn't be a mixed group." Another teacher described his class as more advanced and explained, "The remediation part is not so much, but the enrichment part I just try to dive a little bit deeper and maybe give a little bit of a different strategy than in class." A math teacher also explained the process of mixed ability groups and stated, "And you either need to be doing remediation, so helping kids in areas they are struggling in, or enrichment to help them further their education in the content." And yet another teacher described it differently by stating, "The main purpose of AA3 is for enrichment, AA4 is expedited retake" while a different math teacher explained, "Today we did mostly remediation on one topic that we didn't have a lot of time to do in class so it was a combined effort of remediation at first and then enrichment at the end."

Regardless of how teachers handle the mixed ability groups within each classroom, there were a number of teachers who shared their concerns about the program in regard to having mixed ability groups in the classrooms. One teacher noted, "I think it is difficult with students

who don't need remediation, per se, for a specific course, that we need extension activities as we've kind of tried to create opportunities for that." She went to explain how it may feel like a punishment to students in remediation and stated, "It's like you have to go to all this remediation where these kids get to go and hear speakers come to the school and talk about post-grad opportunities or play games, and that's the way it's perceived." When asked how the program could be improved, one teacher suggested that the administration allow teachers to pick their own student rosters and explained, "That way I could completely do all enrichment or all remediation and that way I don't have a mix in there because that's hard." She went on to explain, "I feel like when you have them together and you're differentiating an activity, unfortunately, the enrichment kids kind of get left by themselves."

Time

Time was also a common theme among all teachers whether it was in relation to instructional time with students or planning time with their peers. One teacher stated, "My job depends on whether these kids pass their SOLs, so of course I'm going to put in every ounce of effort and use every last minute of time to make sure that they are ready." Another teacher explained, "I feel like time gets spent well in core classes" which results in good outcomes in regard to the remediation program. An English teacher also discussed her use of time and stated, "I was taking my planning time which I was willing to do because I am committed to helping these kids succeed, but now I actually have a specific time where I can focus just on them." And when asked what resources were necessary for successful remediation, one teacher responded, "Time. For successful remediation, it would be time."

Teachers also expressed concerns related to an inadequate amount of time with students based on the new procedure of students being taken from their assigned class to complete work in a different class. Math Teacher 4 explained that students miss remediation when they are suspended or placed in the In-School Suspension program. During the observation for this teacher, four students were called out of her class to complete work in another class. Math Teacher 1 also had three students called out to finish quizzes for another teacher. English Teacher 5 explained that she usually has six students in her group but three were either absent or called for another class. And English Teacher 4 struggled to get one student engaged with the activity as he continued to say he needed to go to another teacher to complete some missing work. During these observations, teachers were tasked with managing classrooms while also dealing with multiple interruptions in order to send students to other classrooms. Time is not only lost with the student that is not present for remediation, it is also lost through these multiple interruptions.

Time with students was not the only issue noted by teachers in regard to time. One teacher explained that she wants more common planning and to "have a time where we can talk to each other." She went on to state how important "that kind of planning time" is where those in her department can "sit down and discuss here is where we want to go and here's how we're going to get there." Multiple other teachers also expressed the need to have extra planning time within their departments. One teacher reflected on the level of support from school administration and stated, "I think our administration is very giving in if you ask for the time because you need to work on the curriculum or anything, they're willing to give it." As mentioned previously, the Comprehensive Six-Year Plan (2012) addresses the need for increased collaborative planning and provides an ongoing time line for this strategy. Regular communication is a necessity as teachers must work together to clarify and identify the needs of their students (Fisher & Frey, 2010; Gates et al., 2013).

Research Question Responses

Research Question 1

Why were Tier 2 remediation programs implemented at the high school level for math and reading? Based on the documentation gathered during this study and the responses of the teachers during the interviews, I have determined the overall expectation of the program is aligned with the division policies but that the classroom practices are not always consistent with those expectations. Policy IA, Instructional Goals and Objectives (SVHS, 2018c), mandates that the school provides "programs based on prevention, intervention, or remediation designed to increase the number of students who earn a high school diploma" through "appropriately differentiated instructional programs" (p. 1). Policy IGBE, Remedial and Summer Instruction Program, specifies that such programs target "students who are educationally at risk" (SVHS, 2018d, p. 1). This directive is also provided in the Comprehensive Six-Year Plan (2012) as it states that the school "staff will engage every student in meaningful, authentic, and rigorous work with high expectations through the use of innovative instructional practices, a guaranteed curriculum, and support technologies" (p. 1). The Academic Advancement planning form provides clear guidelines on how the remediation time should be structured in every classroom. Some of the provided norms include targeting individual needs, providing more than just the normal curriculum, and focusing on more than just passing the test. The planning form also provides a document where students are tracked on a weekly basis to determine if they are meeting the identified essential skills that align with their academic weaknesses. However, classroom observations and teacher interviews revealed that many times the AA time is spent on make-up work. Several teachers commented on the fact that students are often pulled by other teachers to complete missing assignments or to make up quizzes or tests. One teacher explained

that this was an administrative change this school year and stated, "You are allowed to pull certain kids if they are absent and need to make up work or are struggling." Another teacher explained, "I try to give them something that will be good practice for them and they can kind of do by themselves so that I can focus on the students that I've pulled to work on, well today it was just one student, to work on whatever it is that they need to make up or retake." Several other teachers also mentioned the goal of remediation was to prepare for the SOL test or the End-of-Course test. Reviewing content for the SOLs and in some cases the weekly tests was also a focus of some of the classes. One teacher stated, "Today we were reviewing content that is on their test on Friday."

Research Question 2

How is remediation conducted at the high school level? The remediation program changed for this school year. Students were all scheduled for a fifty-minute remediation class that only takes place one day a week for this session. Students are assigned to classrooms in mixed ability groups. Teachers received their schedules "probably two weeks before we actually do it." One teacher explained, "Administration and our data coach will go through every students' schedule and assign them to a teacher." She also stated, "This semester is the first semester in which we get to pull kids from another teacher based on what we see in class and if we think they need the extra help." This teacher also clarified, "The expectation for the teachers is everyone is doing something, we shouldn't just be doing an organized study hall."

During Academic Achievement, teachers are to have differentiated activities for the students based on whether they need enrichment activities or targeted skill remediation. This has created an increased level of stress with some teachers as one explained, "You can differentiate, it's just harder . . . because with those enrichment, you really want to scaffold them and have that

communication, whereas remediation is a totally different type of scaffolding." She continued, "I feel like when you have them together and you're differentiating an activity, unfortunately the enrichment kids kind of get left by themselves."

Research Question 3

How successful has remediation been since being implemented, as compared to the previous remediation program (or lack of a remediation program)? The original purpose of this question was to analyze the effectiveness of the progress monitoring and how the school and/or division measured success. The Academic Advancement planning form is one such progress monitoring tool that provides teachers with a format to track individual student progress on essential skills. And while many teachers discussed the use of formative and summative assessments to determine student progress and further need, there was no mention from the teachers on the use of the Academic Advancement planning form. This form seems to be something that was used previously but is not currently being utilized. Teacher feedback during the interviews supports this idea as many are actually assessing student need in an informal way. When asked to explain how student success is measured during the remediation program, one teacher explained, "How much effort are they putting in? Are we making improvement as far as, you know, are they telling me the right answers." Another teacher uses observation during remediation to determine student progress and stated, "I really just know in my brain" but she later stated that she does keep records of student work. Many teachers do track student progress and compare the students' progress in remediation with the progress made in the regular classroom. One teacher explained, "The best way for me to do it is to compare what they've done in remediation to what they do in class."

While the teachers may track the progress for their individual students, the school tracks overall student achievement through the SOL scores at the end of the school year. While this data is not available at this time, it would be of interest to see how this new method of one-day and two-day per week remediation schedules for a complete semester will affect the SOL scores in math and reading. While SVHS currently maintains full state accreditation, their overall reading performance fell last school year by 5 percentage points, from 89% to 84%. The scores reported for math indicate a slight increase last year from 93% to 94%. This will be included in the Chapter Five section for Recommendations for Future Research.

Research Question 4

What are teachers' perceived strengths and weaknesses of the high school remediation program? Teachers listed one strength of the program as having the flexibility to pull students as needed to help them in the areas of demonstrated weaknesses. She stated, "I definitely think that the strengths are the flexibility as far as I can pull who I need to pull." There were also several comments regarding the positive aspect of having a time built into the regular schedule where students can get extra help as needed. One teacher stated, "They try to organize it in such a way so it is meaningful for the students that are in it." Another teacher explained the benefit in using the time to work with students "who have missed work or need remediation." Keeping the overall purpose in mind, one teacher discussed the strengths as "test score improvement, improvement overall for my students."

One perceived weakness of the program was the scheduled time of only one day each week for an entire session. This perception may change if the end of the year data indicates that the one day per week schedule did not hinder student progress. While one teacher mentioned the participation of administration and guidance in every session, another teacher stated, "I think that without more administrative oversight, it will continue to be used by few and exploited by many." Time was also a common theme as teachers reiterated the need for more time as a weakness within the program. They overwhelmingly want more time with students and one resounding reason is that students are missing their session due to being called from their rooms to attend other sessions. The teachers explained that because they need the time with students, they exercise their right to pull students as needed. One teacher stated, "If I have a student one week, he might get pulled next week and so I lose that remediation time with them." Another teacher saw this as a strength and stated, "I definitely think that the strengths are the flexibility as far as I can pull who I need to pull."

Summary

Chapter Four presented a detailed analysis of the various data points collected during this study. Interview details with SVHS teachers allowed teachers to have a voice in regard to the implementation of the remediation program. Classroom observations and document analysis also provided effective data to identify common themes for this study. The four themes identified in Chapter Four include professional development, common planning, mixed ability groups, and time. The analysis of the data and the identification of the four themes helped in answering the research questions selected for this study in order to evaluate the math and reading remediation program at a small rural high school in Virginia. In this study, it was found that the overall expectation of the program is aligned with the division policies but the classroom practices are not always consistent with those expectations. The implementation of the program was also noted as a weakness by many teachers as it only allows for a 50-minute session once each week during the current 9-week period. Another weakness that was noted is the ability of teachers to pull students from other content remediation further limiting the time teachers have

with students. This research also focused on evaluating the success of the program. While many teachers discussed data collection methods, there was no mention of the use of the Academic Advancement planning form as a method of collecting data. This valuable tool would allow for the necessary data collection to monitor student progress and the success of the remediation program. Chapter Five will provide a summary and discussion of the findings for this study, the implications of this remediation program in regard to student success, a presentation of the delimitations and limitations, and recommendations for future research.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this single case study was to examine the implementation of Tier 2 remediation programs utilized in a small rural public high school. Chapter Five presents a comprehensive summary and discussion of the findings along with the implications in light of the relevant literature and theories. The methodological and practical implications are discussed as well as a presentation of the study's delimitations and limitations. The chapter concludes with recommendations for future research.

Summary of Findings

The purpose of this single case study was to examine the implementation of Tier 2 remediation programs in a rural public high school in Virginia. Data were gathered from the Demographic Participant Google Form, the classroom observations, the follow-up teacher interviews, and the documentation collected from the school as well as the division. Once collected, the data were coded through the use of the NVivo analysis tool and the following themes were identified: professional development, common planning, mixed ability groups, and time. As the themes are analyzed, it is important to note that all four of these themes played a critical role in the development and implementation of effective Tier 2 remediation programs.

As this study focused on the implementation of high school remediation programs, the first research question asked why Tier 2 remediation programs were being implemented at the high school level for math and reading. This question sought to examine the reasons behind the selection of a remediation program, and it clarified the nature and background of this case study (Yin, 2018). Through the classroom observations and teacher interviews, it was clear that all teachers believed in the need for additional time with students to either work with them to

improve upon specific individual weaknesses or to provide an opportunity to further explore a concept for deeper understanding. Teachers' responses when asked why remediation was implemented in their classrooms all focused on helping students improve academically. Specific answers included providing differentiated assistance for students in their weakest areas, providing one-to-one assistance as needed with students, ensuring mastery of content, and providing enrichment opportunities for more advanced students. Research indicates that a Tier 2 level of support aims to provide struggling students with targeted remediation (Grosche & Volpe, 2013). While many teachers discussed the need for this program as a way of providing additional assistance to students, the data did not indicate the use of a targeted remediation program. As many struggling students were allowed, and sometimes even required, to make up missing work or redo assignments to improve a grade, many times they were not provided with targeted remediation through a data-informed program.

The second research question asked how the remediation program was conducted at the high school level. It is important to clearly define the guidelines and procedures that are necessary for program evaluations, implementation, and sustainability (Barker et al., 2014; Oakes et al., 2014). Fisher and Frey (2010) also clarify that Tier 2 is not only for remediation but also an opportunity to provide a system of supports by which the student is able to demonstrate responsiveness. The Academic Advancement planning form outlines the expectations for the remediation program but it did not seem to be a tool that was used by teachers to guide their remediation. The planning form provides a student data tracking tool for teachers to use and guidelines that specify common planning expectations, assessment of progress, and instructional expectations. This is a valuable tool that could assist teachers during remediation to better guide the instructional activities.

In order to better understand how the remediation program was conducted at the high school, teachers were asked to explain the program expectations and procedures and how they related to actual remediation practices. Teachers explained that the Academic Achievement (AA) remediation time was not supposed to be a study hall for students but rather structured and beneficial activities. Several teachers commented on the expectation of providing out-of-the-box type of teaching to prepare students for high stakes assessments at the end of the year. Teachers also expressed concern that the 50-minute block of time every Wednesday for the duration of that current 9-week period may not be sufficient in providing students with the help they need as the new program guidelines allowed students to be pulled by another teacher to complete missing work. This leads to one of the themes of time that was a major concern as teachers struggled to provide services to students in a very limited way.

The third research question asked how successful remediation has been since being implemented. This question sought to examine the process of progress monitoring (Fisher & Frey, 2010). Regular evaluation of these programs allows for appropriate assessment of the program's effectiveness and allows for necessary adjustments. The Academic Advancement planning form provides a targeted skill assessment tool that teachers could use to track student progress but teachers did not mention the use of this tool. Several teachers did state that they tracked progress through the online gradebook and that students received a pass / fail grade for their participation in remediation. However, due to the fact that many teachers often used the time to assign make-up work to students, it was difficult to assess the actual progress of skill mastery as noted on the planning tool. Further research is suggested in order to analyze the end-of-year assessments in order to determine the effectiveness of this program. Data from the 2017–2018 school year indicated a drop of five percentage points in the overall high school

reading Standards of Learning (SOL) test, going from 89% pass rate to 84% pass rate. However, math SOL scores showed a slight increase of one percentage point during the 2017–2018 school year with an overall pass rate of 94%.

The fourth research question sought to examine teachers' perceived strengths and weaknesses of the high school remediation program. Understanding teachers' perceptions of the remediation process will help to identify potential challenges and barriers to implementation (Castro-Villarreal et al., 2014). Teachers very clearly expressed concerns regarding the program guidelines that allowed for other teachers to pull students out of their assigned remediation sessions to complete work in other classes. This missed time from the students' assigned remediation caused an underlying stress among teachers as many noted the pressure they are under to improve student performance. There was also a noted hesitation from many teachers on whether this system of pulling students would result in improved academic performance.

Teachers also shared concerns regarding the limited amount of remediation time for the second semester of the school year. The 9-week program that was the focus of the observations only allowed for a weekly remediation session of 50 minutes. It was noted that the next 9-week period would increase to twice a week for 50 minutes. Research indicates that remediation should occur three to five days a week for a minimum of 20 minutes per session (Fisher & Frey, 2010; Fuchs & Vaughn, 2012). While the time requirement may be close to being met, it does not take into account the number of interruptions and time wasted when students are called out of class.

Teachers shared several strengths of the remediation program as they agreed having the scheduled time during the day allowed them to reach more students in order to provide them with the assistance they needed. Many teachers would remediate students during their planning time

or try to get students to stay after school. Some teachers also found the AA time to be beneficial in getting students to make up missing assignments and work on improving their grade. While this is not the actual purpose of a Tier 2 remediation program, it was listed as a strength of the program. It is also important to note that while many teachers shared concerns over students being pulled out of remediation, it seems that some teachers liked that aspect of the program and found that it was a useful component for helping students improve upon their grades. However, for those that found that to be a positive aspect of the program, there was no consideration given to the time missed in the other classes.

Discussion

The following section provides a discussion of the theoretical and empirical aspects related to this study. The theoretical discussion presents three theories: Bandura's social cognitive theory (SCT) and self-efficacy theory, and Dweck's mindset theory. These theories provide a basis for understanding social learning behaviors as they apply to adults implementing new instructional programs. The empirical discussion presents data from Chapter Two in order to compare previous research with the current study.

Theoretical Discussion

Albert Bandura's (1991) social cognitive theory (SCT) focuses on behavioral motivation which identifies cognition, behavior, and the environment as three factors in psychosocial functioning (Bandura, 1991; Greene, 2018; Sheehy, 2004). Teachers demonstrated a motivation to provide students with academic support in order to help them improve upon their performance. It should also be noted that the teacher participants seemed to be truly invested in their students' success. Their prior experience with the remediation program consisted of demonstrated student success as indicated on the state assessment data. Therefore, many of the teachers had a positive perception of the success that could result from having a scheduled remediation time. However, it should also be noted that several teachers shared concerns over the lack of time given to prepare for the remediation and the resulting confusion related to the new program guidelines. Fisher and Frey (2010) explained the importance of carefully planning and providing the necessary level of support to the teachers in order to successfully implement a remediation program. Bandura (1977) also mentions impulsive behavior resulting from the presence of environmental cues and explained that communication is vital during the initial stages of program implementation. This impulsive behavior was evident in some of the teacher participants in that having the ability to call students as needed to complete work created a concern for other teachers as one teacher noted the confusion related to the process of pulling students. There was a noted level of possessiveness in keeping students in class and not sharing students with other teachers. This is an area of concern that should be addressed by administration in that teachers need to communicate with one another through shared data in order to determine where the higher need is in relation to the students' academic progress. It is also important for administration to reiterate the purpose of the remediation program in order to ensure that targeted interventions are being implemented rather than plans to make-up missing work.

Bandura's (1997) self-efficacy theory is an extension of SCT and allows for an understanding of the diversity of individual thought processes and motivational factors. Selfefficacy is not a focus on skill set but rather the overall perception and level of confidence in one's ability to meet expectations (Bandura, 1991). Throughout this study, teachers demonstrated a high level of self-efficacy in that they were confident in the work they were doing and in their ability to help students succeed. First year teachers also demonstrated high self-efficacy, and it is important to note that one common factor they shared was the ability to plan and discuss instructional strategies with their peers. Bandura (1977) explained the role of vicarious experiences and peer persuasion and found that a person's expectations can stem from observing the experiences of those around them. The teacher participants in this study seem to benefit from their communication with their colleagues. It is critical that first year teachers continue to have peer support in order to continue building a positive self-efficacy and positive perceptions regarding the remediation they are providing. However, administration should participate in the teacher collaboration in order to ensure that the program is being designed as intended. This would include teachers sharing best practices for remediation and sharing targeted interventions rather than practices that may not reflect those of a highly effective remediation program.

Carol Dweck's (2008) mindset theory proposes the idea of two different types of mindsets: the fixed mindset and the growth mindset. A person's mindset can be defined as one's personal beliefs in his or her qualities and abilities. The mindset of the teacher participants appeared to be that of the growth mindset in that they were willing to work within the new program guidelines. There was no indication of a fixed mindset among this group of teachers and that further supports the growth of this remediation program and the potential for increasing student achievement. The growth mindset strives to develop and improve upon individual abilities (Dweck, 2015). Teachers repeatedly mentioned their desire for more training in providing remediation and all seemed to possess the drive and motivation to provide meaningful learning opportunities for their students. Providing regular and continuous training to teachers in best practices for targeted interventions will serve to further improve this remediation program

and increase student achievement as well as solidifying the growth mindset that already exists among this teacher group.

Empirical Discussion

The Individuals with Disability Education Act (IDEA) and No Child Left Behind (NCLB) both provide legislation that supports the use of research-based instructional methods to help increase academic achievement (IDEA, 2004; NCLB, 2002). Tier 2 remediation is one such instructional program that provides targeted skill interventions as a supplement to regular classroom instruction. Remediation programs are intended to be implemented in small group settings for a prescribed amount of time each week, typically three to five days a week for 20 minutes per session. The current study suggested a lack of adequate remediation time as the remediation sessions were only offered once a week for 50 minutes per session.

It was also noted that the overall program did not provide consistent targeted skill interventions as many teachers assigned students make-up work to improve their grade. However, there were a few teachers that were working on specific academic skills in an effort to help students pass required end-of-year assessments while others worked on providing enrichment opportunities for the more advanced students. This study also found that remediation sessions consisted of mixed ability groups. Teachers were tasked with providing remediation and enrichment based on individual student need in only one session. This created a noticeable level of distraction during some of the observations as teachers were moving between groups and not always able to fully focus on the students in need of remediation. Teachers need to be able to use the time provided for remediation to focus on specific student weaknesses, but the current program required teachers to focus on multiple student needs that ranges from extremely weak to advanced student performance. The current program design only diminishes the intended purposes of Tier 2 remediation programs to provide targeted skill interventions.

Implications

The purpose of this section is to discuss the theoretical, empirical, and practical implications of this study. Theoretical implications include how Bandura's social cognitive theory and self-efficacy theory can be used to improve upon the implementation of the remediation program by increasing the level of support for teachers. Dweck's mindset theory can also be used to build upon teachers' growth mindset to further support successful program practices. Empirical implications will expand upon the current research regarding Tier 2 remediation programs, specifically those at the high school level. Practical implications are examined and discussed to allow stakeholders the opportunity to review the information and make potential program improvements to further support teachers and students.

Theoretical Implications

The theoretical framework for this study focuses on two of Bandura's theories: social cognitive theory and self-efficacy theory. Bandura believed that behavior is influenced by one's psychosocial functioning and that there is a connection between the level of a person's self-efficacy and their ability to meet given expectations. Teachers demonstrated high levels of self-efficacy and positive perception as a result of vicarious experiences and peer persuasion. Working and learning from veteran teachers was noted as a major resource for teachers with less experience. The theoretical implications include how Bandura's theories can be used to explore and increase teachers' levels of self-efficacy and support their social cognitions in order to improve upon the implementation of the remediation program.

Dweck's theory highlights the connection between a person's mindset and their motivation to perform. Her theory proposed two different types of mindsets: a growth mindset and a fixed mindset. Teachers demonstrated a growth mindset throughout the classroom observations and the follow-up interviews. They were positive in their interactions with students and were mainly positive in the feedback they provided during the interviews. However, two areas of concern were noted: the need for more training and more time co-planning. By increasing the amount of specific training and allowing more time for co-planning, the growth mindsets of the teachers would continue to be supported which would also positively impact their level of self-efficacy and social cognitions, further improving the remediation program.

Empirical Implications

The literature and research available on Response to Intervention (RtI) programs, specifically Tier 2 remediation programs, are abundant but only for programs at the elementary and middle school levels. There is limited research related to Tier 2 remediation programs at the high school level. The findings from this study increase the body of research and further expand the information related to RtI and Tier 2 remediation programs by including specific program information at the high school level.

This study provides information related to the implementation of high school remediation programs. It was guided by teacher behaviors during the classroom observations as well as their perceptions as indicated through their follow-up interviews. As high schools in Virginia continue to seek out effective instructional strategies in order to help their students succeed, it would be beneficial to examine the process of RtI and how providing a formal Tier 2 remediation program could potentially increase student achievement at the high school level.

Practical Implications

Practical implications of the current research can be extended to a variety of stakeholders within the educational community. School and division administration, remediation teachers, and higher education institutions may all gain insight from the practical implications set forth with this study.

School and division administration. School administrators are tasked with providing teachers and students with an instructional environment that is conducive to learning. Meeting students' academic needs is a challenge in that students often have needs in multiple content areas. Deciding how and when to meet those needs is a major challenge for administrators at the high school level. This case study provides the data behind a high school remediation program that was scheduled during the school day for students in both reading and math. While there was a schedule time, the amount of time for this remediation program was not supported by the best practices presented in the research. School administration should give consideration to the amount of remediation time and ensure that it is consistent with the recommendation of three to five days with a minimum of 20 minutes each session.

School administration is also responsible for providing teachers with professional development and / or training programs to maintain a high level of professionalism and to provide awareness of the best practices in education. Teachers noted an ongoing desire for more training in remediation practices as well as co-planning with their peers. School and division administration might consider discussing a yearly professional development plan for division-wide and school-wide training in identified best practices related to remediation. Administration from both levels might also consider the scheduled teacher workdays and professional development days during the year, the school's master schedule, and the teachers' assigned

duties in an effort to identify specific ways that teachers could be given uninterrupted time to coplan with their peers.

Remediation teachers. High School remediation teachers shared their insights regarding how the remediation program could be improved and the resources necessary to make those improvements. Remediation teachers at all levels could use this information to ensure the program they are offering is sufficient for meeting specific student needs. Teachers might consider increasing communication with the administration as well as other teachers to identify and discuss specific student needs in order to effectively plan a course of action in the event that the student requires assistance in multiple areas. Also, teachers can review the literature regarding formal Tier 2 remediation programs and reflect upon their own programs to ensure they are reaching a higher level of instructional assistance that meets the student's specific needs.

Higher education institutions. Many teachers noted a lack of formal training in Tier 2 remediation in their teacher preparation programs. The research for this study identified a lack of formal training through the higher education institutions. It would be beneficial for administrators from \ higher education institutions to study the information presented in this research and examine their own teacher preparation programs to ensure opportunities for teacher candidates to learn about targeted skill remediation and the use of data-driven decision making.

Delimitations and Limitations

Delimitations for this study include purposeful sampling and researcher selected topic. Purposeful sampling was used in this case study to select participants with specific selection criteria including teachers in grades 9–12 who were currently implementing Tier 2 remediation in the content areas of reading and / or math. This sampling allowed for a balanced sample as well as maximum variation. It should also be noted that this case study narrowed the focus on teacher perception regarding program implementation and did not focus on the administrative or student perspectives. The topic was also narrowly focused on remediation programs specifically at the high school level. The delimitations allow for a detailed case study focused on a specific high school remediation program as well as teacher perception.

Identified limitations for this case study include a lack of generalizability as this study limited the applicability of the research findings to remediation programs at the high school level. While the research provided information related to Tier 2 remediation programs applicable to all grade levels, the focus of the research and the findings are specific to grades 9– 12. This study also involved a small sample size of twelve participants all teaching in one specific high school and is, therefore, bound by the identified school setting.

Potential limitations also exist in relation to my role as the researcher. Due to my previous experience as a middle school administrator implementing RtI, there was the potential for bias towards classroom observations. However, I took appropriate measures to ensure the observation tool and interview questions were objective in nature and that my personal beliefs did not interfere with this study. These measures included the utilization of the model of the researcher as a nonparticipant, having no direct involvement in the observations, and using interview questions that were peer reviewed and practiced prior to the interview. Another potential limitation was the use of the potential reward of a gift card to teachers who participated in the observations and interviews. Two \$100 gift cards were offered in a drawing for teachers who completed the study. The potential for winning a gift card may have increased the motivation of teachers to participate but not necessarily the amount of effort or honesty that was put into the observations or interviews.

Recommendations for Future Research

There are several recommendations for future research as a result of this case study. High school remediation programs should be examined in greater detail, especially programs that align with the RtI recommendations for Tier 2 remediation programs. These programs should include targeted skill remediation as well as formalized data review processes. It would also be beneficial to study a larger sample size to include more reading and math teachers as well as more special education teachers and more high schools. It would also be beneficial to include the administration in the study as well as examine the training and / or professional development provided prior to the program as well as throughout the school year.

A future quantitative study may also prove to be beneficial in order to examine the student progress as evident on the end-of-year assessments, specifically the SOL and the WorkKeys Writing assessment. The data could be compared to previous years' data along with quarterly benchmark data to determine if 50-minute remediation programs provided once or twice a week are a beneficial practice. Analysis could also include targeted skill data from remediation sessions and aligned with specific SOL strands to determine effective instructional practices during remediation.

Summary

The purpose of this current case study was to examine the implementation of Tier 2 remediation programs at the high school level. Findings were analyzed and discussed and four themes were identified central to this study that played a critical role in the development and implementation of the Tier 2 remediation program. The themes included professional development, common planning, mixed ability groups, and time. These four themes were all critical components that helped shape teacher perception as well as their level of self-efficacy.

An increased level of administrative support in these common theme areas would serve to further improve upon teacher perception which would in turn support a continued growth mindset among the teachers and further promoting successful remediation programs for students.

This case study identified several areas of improvement that could potentially increase student achievement and enhance the design of the program. One such area focuses on the mixed ability groups that were utilized during the observations. Using data to identify students based on their academic strengths and weaknesses would allow remediation sessions to be built based on the level of need. Teachers would then be able to target specific student needs rather than trying to meet the multiple needs of a mixed ability group. This would save time and effort and alleviate some of the stress that results from trying to meet so many different needs. Another area of improvement revolves around the practice of teachers pulling students from remediation sessions. As many of these students need academic support in multiple areas, there should be guidelines in place that will help determine when a student can be pulled into another class. Decisions should be based on data and teachers need to be included in these discussions and decisions. Having a student academic plan in place that determines the student's most critical needs and how those needs will be met would be beneficial.

The final area of improvement includes additional training for teachers in remediation and targeted interventions. Providing teachers with professional development on best practices in remediation would help them in using the data available to target student needs and provide the most appropriate instructional measures in response to those needs. As high school administration and teachers sometimes struggle to meet the multiple needs of their students, they are challenged with the issue of finding time during the day to do so. They are faced with many challenges at the high school level such as high stake state assessments, end-of-year assessments, and on-time graduation. After school instruction at this level often competes with sports, clubs, and jobs. This is why implementing a high school remediation program during the school day is beneficial as they already have access to the students. With appropriate training and planning as well as an effective program design, high school remediation programs can be successful.

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APPENDICES

Appendix A: IRB Approval Letter

LIBERTY UNIVERSITY. INSTITUTIONAL REVIEW BOARD

December 7, 2018

Tamantha Hurt IRB Approval 3562.120718: Academic Remediation: A Qualitative Case Study of High School Programs

Dear Tamantha Hurt,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

6. Collection of data from voice, video, digital, or image recordings made for research purposes.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP Administrative Chair of Institutional Research The Graduate School

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Appendix B: Informed Consent

CONSENT FORM (Google Document)

SECTION 1

PURPOSE OF THE STUDY

The purpose of this form is to gain consent for participation in the study entitled 'ACADEMIC

REMEDIATION: A QUALITATIVE CASE STUDY OF HIGH SCHOOL TIER 2

PROGRAMS'.

Please click "Next" to review the Consent Form in Section 2.

Email Address:

SECTION 2

CONSENT FORM

ACADEMIC REMEDIATION: A QUALITATIVE CASE STUDY OF HIGH SCHOOL PROGRAMS

You are invited to be in a research study on high school remediation programs. You were selected as a possible participant because you currently provide remediation in math or reading to students grades 9 through 12. Please read this form and ask any questions you may have before agreeing to be in the study. Your participation in this study will involve the completion of a demographic survey, one in-class remediation observation, and a follow-up interview. Participants who complete the study will be entered to win one of two \$100 Visa gift cards. Tamantha "Tammy" Hurt, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to examine the processes and procedures of implementing tier 2 remediation programs in high school reading and math. With little research on this target population, it would be beneficial to examine the remediation practices of a successful school in order to identify best practices that result in improved student performance. The identified practices will be presented in this case study with the intention of sharing them with educational researchers seeking to improve upon instructional practices in struggling high schools. The following research questions will be used to guide and direct this study:

1) Why were tier 2 remediation programs implemented at the high school level for math and reading?

2) How is remediation conducted at the high school level?

3) How successful has remediation been since being implemented, as compared to the previous remediation program (or lack of a remediation program)?

4) What are teachers' perceived strengths and weaknesses of the high school remediation program?

Procedures: If you agree to be in this study, I would ask you to do the following things:

1) Complete the Demographic Survey in Google. This process will take approximately 10 minutes.

2) Allow me to observe one of your remediation classes. This observation should last approximately 30 minutes.

3) Participate in an audio recorded interview following the observation. The interview should take approximately 30 minutes to complete.

4) Review transcription of your interview for accuracy. It should take you approximately 15 minutes to complete this procedure.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. I must also disclose that due to my professional position within the educational system, I am considered a mandated reporter of child abuse and neglect. **Benefits:** Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include the potential knowledge and understanding gained in regard to best practices in high school remediation programs which can improve student performance and help students better prepare to become productive citizens.

Compensation: Participants who participate in the observation and complete the interview process will be entered into a raffle for one of two \$100 Visa gift cards.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- The school and the participants will be assigned a pseudonym. I will conduct the interviews in a location where others will not easily overhear the conversation.

- Data will be stored on a password locked computer and may be used in future presentations. After three years, all electronic data will be deleted.

- Interviews will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or

with Appomattox County Schools. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please contact the researcher at the email address or phone number included in the next paragraph. Should you choose to withdraw, data collected for you will be destroyed immediately and will not be included in this study.

Contacts and Questions: The researcher conducting this study is Tamantha "Tammy" Hurt. You may ask any questions you have now. If you have any questions later, you are encouraged to contact her at **Control of Content** or tchurt@liberty.edu. You may also contact the researcher's faculty chair, Dr. Meredith Park, at mjpark@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515 or email at irb@liberty.edu. A hard copy of this consent form will be provided to you prior to the scheduled interview in order to obtain your original signature. You will also be provided a copy for your records.

SECTION 3

ELECTRONIC SIGNATURE AND DATE

Below is the Statement of Consent. Both the Consent and Date sections are required before moving forward to the Demographic Survey. Once the "I Agree" button is clicked and the Date is entered, the participant will be automatically directed to the Demographic Survey. Statement of Consent: By clicking "I Agree", you are indicating that "I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study."

____ I Agree

TODAY'S DATE

Appendix C: Demographic Questionnaire

- 1. What is your full name (first, middle, last)?
- 2. What is your birthday (month, day, year)?
- 3. What grade level and subject do you teach?
- 4. What is the certification on your professional license?
- 5. How many years of teaching experience do you have?
- 6. What is your highest level of education?
- 7. What area is your undergraduate / graduate degree in?
- 8. What day and time do you provide remediation services?

Appendix D: Teacher Interview Questions

- 1. Please state your name and the grade level and subject you teach.
- 2. Please explain your educational philosophy and what shaped your views as an educator.
- 3. How did your teacher preparation program prepare you in providing RtI and / or Tier 2 remediation?
- 4. What is your experience with RtI and Tier 2 remediation programs?
- 5. Why is remediation implemented in your classroom?
- 6. Please explain the expectations and procedures for the remediation program.
- 7. How do these expectations / procedures compare to actual practices?
- 8. Please describe the training you received in order to provide remediation to students.
- 9. What resources do you feel are necessary for successful remediation?
- 10. What resources are available to you?
- 11. How do these resources support you in providing effective remediation to students?
- 12. Explain how you measure student success with your remediation program.
- 13. What are your thoughts regarding today's remediation observation?
- 14. What is your overall perception of the strengths and weaknesses of the remediation program?
- 15. What do you think could be done to improve the program?

CLASSROOM OBSERVATION DATA

Division:	Date:
School:	Time In / Out:/
Teacher:	Grade Level:
Subject:	-
TOPIC / SOL STRAND:	
WHAT ARE THE INTENDED OUTCOMES:	
HOW ARE STUDENTS GROUPED?	
WHAT MATERIALS ARE BEING USED:	
BY THE TEACHER:	
BY THE STUDENT:	
IS THERE A STUDENT ASSESSMENT?	
IF SO, WHAT IS BEING ASSESSED?	
WHAT IS THE ASSESSMENT TOOL BEING US	SED?

OBSERVATIONAL NOTES:

TEACHER ACTIVITIES:						
STUDENT ACTIVITIES:						

REFLECTIVE NOTES:_____
