THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT PLANNING WITH THE IMPLEMENTATION OF TARGETED INSTRUCTIONAL STRATEGIES AND THE IMPACT ON TEACHER EVALUATIONS AND STUDENT GROWTH

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Doctoral Capstone Project Submitted in Partial Fulfillment of the

Requirements for the Degree of Doctor of Education (EdD) in Education

Administration and Leadership

July 2020

CAL U

Doctoral Capstone Research Project Decision Form

Date of Presentation:	July 27, 2020
Capstone Title:	**THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT PLANNING WITH THE IMPLEMENTATION OF TARGETED INSTRUCTIONAL STRATEGIES AND THE IMPACT ON TEACHER EVALUATIONS AND STUDENT GROWTH**

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DECISION

X	Approved with no further revisions
	Approved with minor revisions
	Provisionally approved with major revisions
	Not approved with recommendations to revise or rewrite

EXPLAIN DECISION (AS APPLICABLE):

LIST REVISIONS NEEDED (IF APPLICABLE):

THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT PLANNING WITH THE IMPLEMENTATION OF TARGETED INSTRUCTIONAL STRATEGIES AND THE IMPACT ON TEACHER EVALUATIONS AND STUDENT GROWTH

ABSTRACT

Using teacher evaluation score averages, Instructional Rounds data, and student assessment score averages from the Northwest Evaluation Association Measures of Academic Progress (NWEA MAP) assessment at two elementary school campuses in a large West Texas city, this research study investigated the affects that effective professional development planning and teacher effectiveness had on student achievement. This study is a quantitative action research project utilizing archival data from the 2018 – 2019 school year as a baseline, as well as 2019 – 2020 data collected throughout the entirety of the research study. The data was collected after each professional development training in order to identify the utilization of the targeted instructional strategies implemented to analyze the relationship between teacher evaluation scores and the implementation of targeted professional development. NWEA MAP assessment averages from students were collected and analyzed in order to identify the relationship between the implementation of effective professional development and targeted instructional strategies, and teacher evaluation scores. The results of this research study indicated an increase in teacher evaluation score averages with increased usage of the targeted instructional strategies and fidelity to the professional development trainings. In addition, the findings indicated that groups of students and teachers had higher increases in overall teacher evaluation averages and student NWEA MAP Rasch Unit (RIT) score averages when implementing the targeted instructional strategies with more fidelity to the professional development trainings. Also, the results indicated consistency at both campuses in the use of the teacher evaluation rubric, since both of the focus campuses in

this research study used the same teacher evaluation rubric and received the same calibration training at the beginning of the 2019 – 2020 school year,. The recommendations discussed within this research study include; encouraging fidelity to the professional development training and the implementation of the targeted instructional strategies, including additional campuses to add more teachers and students to the focus groups, additional time parameters, and a structured testing protocol in order to have a testing environment conducive for student concentration. In addition, it was recommended to include individualized teacher evaluation scores and student NWEA MAP RIT scores to identify more individualized increase or decreases on teacher evaluations and student assessment scores.

ACKNOWLEDGEMENTS

The completion of this research study could not have been possible without the participation and assistance of so many people whose names may not be mentioned here. Their contributions are greatly appreciated and acknowledged. However, I would like to express great appreciation particularly to the following:

Dr. Todd Keruskin, Dr. Ahmet Cetinkaya, Ms. Andrea Carzoli, Mr. Jesus Ortega, and Ms. Grace Cruz for their support throughout this process.

A special thank you is extended to Chris Sefcheck for his continued support, motivation and competitiveness that drove me to completion first.

To all of my relatives, friends and others who in one way or another shared their support, thank you.

Above all, to my daughter, Lordyn Sepesy, a special thank you for loving me always, providing me time to complete this endeavor by sleeping late on weekends, and for motivating me to always do better, thank you. I love you always.

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CHAPTER 1

INTRODUCTION

Professional development within a West Texas statewide charter school organization is most often determined by the district's central office curriculum directors in Houston, Texas and is mainly focused on content. However, teachers know their content, but delivering and implementing it in the classroom using the best practice strategies is a concern for district and campus administration. With inconsistencies and lower than average state Reading and Math assessment scores throughout the district in grades 3 through 5, changes in professional development planning and delivery are needed. Since the HPS charter school district implemented the Harvard Model for Instructional Rounds (IR) during the 2018 - 2019 school year, problems of practice have been identified at each of the district's fifty-seven campuses.

Statement of the Problem

Professional development serves as advanced learning opportunities for teachers, which can lead to more effective educators as well as growth in student learning and achievement. Inconsistencies in the development and implementation of effective professional development often hinders teacher growth in order for them to become more effective in the classroom, essentially leading to a lack in student growth on state or local assessments. The problem addressed in this study was whether teacher and student performance data is affected by the implementation of targeted professional developments based on identified problem of practice.

Purpose of the Research

The purpose of this research was to examine the implementation of targeted professional development planning and delivery based on the identified problems of practice while focusing on specific instructional strategies. The research identified the correlation, if any, between the implementation of targeted professional development planning of instructional strategies and teacher effectiveness on evaluation scores based on the district Instructional Rounds (IR) problem of practice developed from the Harvard Instructional Rounds Model. The study focused on targeted professional developments and their impact on teacher effectiveness based on evaluation scores and student performance on norm-referenced test results from the Northwest Evaluation Association's Measure of Academic Progress exam (NWEA MAP).

Research Questions

1. What effect does the implementation of targeted professional development, based on Instructional Rounds Problems of Practice, have on teacher evaluation scores?

2. What effect does the implementation of targeted professional development planning, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

3. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on teacher effectiveness?

4. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

Significance of the Study

As the Director of Academics for Pre-Kindergarten through 8th grade for the HPS West Texas charter school district, this research study was significant to the researcher and the district because it added to the understanding of the relationship between teacher evaluation scores and student performance. Also, as the Director of Academics, the researchers' duties included working and assisting all teachers in growing their skill sets to become more effective instructors in the classroom. This study also used strategic and targeted instructional best strategies to find correlations between their classroom implementation, teacher evaluation scores, and student performance. Current teacher evaluation scores and student performance on the NWEA MAP assessments do not show a correlation with teacher effectiveness. 2018-19 teacher evaluations and NWEA MAP data were used as baseline data for this analysis.

Desired Outcomes of the Study

This study hoped to determine that planning targeted professional development for teachers based on the identified district problems of practice would lead to more effective classroom teachers based on teacher evaluation scores. By having effective educators implement specific instructional strategies that tie into the identified district

problems of practice, the researcher hoped to conclude that students show growth on NWEA MAP data.

Definition of Terms

Effective Professional Development: Structured professional learning that results in changes in teacher practices and improvements in student learning outcomes (Darling-Hammond, Hyler, and Gardner, 2017, p. v).

Instructional Best Practices: Techniques that teachers use in order to help students become independent, strategic thinkers (Alberta Learning, 2002, p. 1).

Instructional Core: The essential components for student learning to occur with respect to the teacher and the student being in the presence of content (City, et. al., 2009).

Micro-credentials: Job-embedded, competency-based, digital pathways that educators can choose based on their individualized growth needs (NEA, 2018).

Norm-referenced test – Standardized tests that are developed in order to compare and rank test takers in relation to one another (Fairtest, 2007).

Professional Learning Community (PLC): Educators working in a collaborative environment on a regular and consistent basis to share best practices and skills to enhance student learning and success (DuFour, DuFour, Eaker, & Many, 2006).

Problem of Practice: An identified and specific issue or concern that the school or district needs to correct. The identification of the problem of practice should be rooted in data and focus on the instructional core (City, et. al., 2009).

Rasch UnIT (RIT): A measurement scale developed to simplify the interpretation of test scores. The RIT score relates directly to the curriculum scale in each subject area (NWEA, 2015).

Teacher Certification: Meeting a particular state's required amount of undergraduate course work, a specified score on standardized exams, and completion of an accredited certification program (Teach: Make a Difference, n.d.).

Teacher Effectiveness: The contributions that a teacher makes to his or her students' achievement. This can include characteristics teachers bring with them to the job, performance on a daily basis, and his or her ability to build relationships and make connections with students (Allen, et.al., 2007).

Teacher Evaluation Model: A standards-based teacher evaluation system that encourages administrators and teachers to reflect on components of professional practice (Danielson, 1996).

Financial Implications

This research study included seventeen teachers from two elementary campuses. The district instructional content coaches implemented targeted best practices during district professional development and campus administrators received professional development on the teacher evaluation system for calibration purposes. In addition, student norm-referenced exam score averages were utilized to examine student growth. All financial implications resulting during this research study were indirect, as all training

and testing were requirements of the district. Specific breakdowns of all indirect costs will be seen in Chapter 3: Methodology.

Summary

This introductory chapter provided an overview of the capstone research project, including the financial implications of the project for the West Texas school district. This capstone project was organized into four additional chapters, the reference pages, and the appendix. Chapter 2 will provide a literature review that provides an overview of this research's relationship to teacher professional development, teacher effectiveness and student achievement. The research methodology will be discussed in Chapter 3. Chapter 4 discusses the findings of the research study. Chapter 5 provides a summary of the overall capstone research project as well as any pertinent conclusions and recommendations of the study.

CHAPTER 2

REVIEW OF LITERATURE

Professional development in public schools plays a critical role in not only teacher effectiveness and student growth, but also as a significant indicator in the improvement of schools (Tournaki, Lyublinskaya, & Carolan, 2011). Research studies established that implementating effective and well-designed professional development trainings leads to improved teacher practices and student outcomes (Darling-Hammond, Hyler, and Gardner, 2017). With the implementation of standardized testing for students in grades 3 - 8 throughout the United States, there has been a wealth of research that focuses onteacher quality and student achievement on grade levels (Bird, 2017). Current and past research has attempted to identify correlations between the implementation of professional development and the outcomes of both teacher effectiveness and student growth (Darling-Hammond, Hyler, and Gardner, 2017).

The content in this chapter is divided into six main parts. The first section of this chapter provides an overview of the history of teacher preparation programs and professional development. The next section describes the impact of effective professional development and explains the benefits of professional development opportunities. The third part provides insight into teacher effectiveness and the identifying factors of an effective teacher. The fourth portion of this chapter reviews literature that explores the impact of professional development on teacher effectiveness. The fifth section of this chapter examines the correlation between teacher performance and student outcomes.

The final section of this chapter examines ways in which to measure and support effective classroom teaching.

History of Teacher Preparation Programs and Professional Development

Teacher preparation programs have existed, since the nineteenth century with state normal schools and in universities and private colleges since the 1970s within the United States (Larabee, 2018). However, during this time, states throughout the country developed different approaches for teacher preparation (Ravitch, 2003). For example, while one state may have transitioned teacher preparation programs to the university or private college level, another state may have continued to support the normal school training (Ravitch, 2003). Further, universities and private colleges that had teacher preparation programs focused their curriculum around the liberal arts and normal schools tended to focus on apprenticeships for students (Larabee, 2018).This led to major variances in the style and curriculum that teachers received.

With such diversity in the education and training of teachers during the nineteenth and twentieth century, teacher certification and the profession suffered altogether (Ravitch, 2003). This did change during the start of the twentieth century. Ravitch (2003) suggested that in order for educators to be viewed as professionals, trailblazers in educational reform developed specialized tracks for educators to follow, not just at the undergraduate level, but also at the graduate school level. Specifically, more universities began to offer teacher preparation options to focus on specialized areas of content such as Math, Reading, History, school administration, and school psychology (Ravitch, 2003).

During this period in history, most states required certification exams for teachers in both content and pedagogical skills in order to meet regulations within the profession (Ravitch, 2003). This meant that after completion of a degree program in education, teachers were required to receive certification based on their performance on an exam (Angus & Mirel, 2001). Again, state certifications differed in similarity to the university training programs. With the beginning of the 21st century, states still have control over teacher preparation requirements, as well as teacher certification exams. (Angus & Mirel, 2001).

It is evident in the lack of consistency between states, and the federal level, that teacher preparation programs still vary, as do the teacher certification exams. Reform programs continue to be discussed at all government levels throughout the United States (Angus & Mirel, 2001). As with any profession, ongoing learning and development are necessary to continue to meet the needs and demands of the job (Angus & Mirel, 2001). With the beginning of the 21st century, educational leaders continue to create new initiatives and innovative programs for teacher preparation and development to ensure high-quality education to all students (Angus & Mirel, 2001).

Effective Professional Development

Effective professional development is defined as "structured professional learning that results in changes in teacher practices and improvements in student learning outcomes (Darling-Hammond, Hyler, and Gardner, 2017, p. v)." School districts across the country continue to look for and identify the right fit in professional development for

the teachers in order for them to continue in professional growth (Ado, 2013). However, teachers continue to voice concerns when they participate in additional professional developments due to the demands of job requirements and the impact of student achievement on teacher evaluations. (Darling-Hammond, Hyler, and Gardner, 2017, Batchelor, 2008). With the growing demands put on educational institutions, professional development for teachers continues to advance with a wider array of high-quality design options to pique more interest from educators (Darling-Hammond, Hyler, and Gardner, 2017). School districts are beginning to rethink their approaches to professional development in order to shift the pedagogical paradigm required to develop 21st-century students (Darling-Hammond, Hyler, and Gardner, 2017).

Educators also need to rethink their understanding of professional development to achieve professional growth. Professional growth requires professional learning, both of which can be acquired through various professional development designs (Darling-Hammond, Hyler, and Gardner, 2017). This not only involves mindset shifts by teachers but also school administrators (Bozkus and Bayrak, 2019). Bozkus and Bayrak (2019) propose the importance of administrators being vital in establishing a professional learning culture within the school by modeling and supporting this culture of learning to attain success. However, Bozkus and Bayrak (2019) suggest that this is not always a reality because many administrators cannot provide guidance and support to teachers because they have not been provided adequate and ongoing training themselves to do so.

A one-stop approach for professional development may never exist. Still, Darling-Hammond, Hyler, and Gardner (2017) do provide seven features of effective professional development: 1) Is content-focused, 2) Incorporates active learning, 3) Supports collaboration, 4) Uses models of effective practice, 5) Provides coaching and expert support, 6) Offers feedback and reflection, and 7) Is of sustained duration. Their research resulted in findings that show that effective professional development includes most or all of these components simultaneously (p. 4). By utilizing the features of effective professional development identified by Darling-Hammond, Hyler, and Gardner (2017), it is more comprehensible to see the benefits of this approach in teacher learning.

Content-Focused

Content-focused professional development has shown a direct impact on student achievement (Darling-Hammond, Hyler, and Gardner, 2017). This design option for professional learning allows teachers to identify and discuss best practices for the implementation of content to influence student achievement in a positive manner (Darling-Hammond, Hyler, and Gardner, 2017). Assessment data, curriculum pacing, and state standard implementation within the content areas are important discussion points during content-focused professional development. It is important to note that effective professional development focuses on the district, campus, and teacher priorities based on data collection (Darling-Hammond, Hyler, and Gardner, 2017). Schools often utilize Professional Learning Communities (PLCs) for job-embedded approach to teacher development (2017). According to Darling-Hammond, Hyler, and Gardner (2017),

research studies conducted determined that job-embedded and content-focused professional development opportunities proved better student outcomes.

Incorporates Active Learning

Trotter (2006) determined several philosophies for adult learning and development:

· Adults come to learning with experiences that should be utilized as resources for new learning.

· Adults should choose their learning opportunities based on interest and their own classroom experiences/needs.

· Reflection and inquiry should be central to learning and development (p.12).

Trotter's (2006) ideology suggests a shift in paradigm in regards to professional development. The idea of teachers learning based upon lecture and a sit-and-listen atmosphere was once considered the norm. However, this model would involve teachers engaging "directly in the practices they are learning," to immediately connect those practices into the classrooms (Darling-Hammond, Hyler, and Gardner, 2017, p. 7). While active learning offers an engaging atmosphere for teacher learning, it also offers for the implementation of "collaboration, coaching, feedback, reflection and the use of models and modeling (Darling-Hammond, Hyler, and Gardner, 2017, p. 7)." Giraldo (2014) found that professional development does have an impact on teachers, especially when teacher best practices and suggestions are taken into account. The action research

conducted by Ado (2013) looked at implementing a professional development model that was inquiry-based and included active learning, specifically focusing on early career teachers. The results proved beneficial to the participants; however, many felt "challenged and overwhelmed by the shift to this PD format (Ado, 2013, p. 139)."

Supports Collaboration

Davis (2019) defines teacher collaboration as "when members of a learning community work together to increase student learning and achievement." Teacher collaboration can differ depending on professional development models and campus or district priorities. These learning communities can consist of one-on-one approach, small groups, campus-wide, and district-wide, dependent, again on the needs of the institution (Darling-Hammond, Hyler, and Gardner, 2017). When conducted in a trusting environment, teachers can reflect on their practices to determine areas of weakness and create methods to resolve these issues (Darling-Hammond, Hyler, and Gardner, 2017). Teacher collaboration also emphasizes shared visions on teacher and student performance (Davis, 2019). While there exist certain challenges to effective teacher collaboration, (Davis 2019) describes some of the benefits to teacher collaboration; increased academic effort, increased understanding of student data, more creative lesson plans, and less teacher isolation. Overall, the research studies reviewed by Darling-Hammond, Hyler, and Gardner (2017) indicate that professional developments that incorporate effective collaboration will positively contribute to student achievement.

Uses Models of Effective Learning

"Curricular and instructional models and modeling of instruction help teachers to have a vision of practice on which to anchor their own learning and growth (Darling-Hammond, Hyler, and Gardner, 2017, p. 11)." Models and modeling can include:

· video and written cases of teaching,

· demonstration lessons,

· unit or lesson plan,

· observations of peers, and

· curriculum materials including sample assessments and student work samples (Darling-Hammond, Hyler, and Gardner, 2017, p. 11).

These examples provide additional support for teachers in conjunction with participation in professional development workshop opportunities. The models presented above tie into each of the features of effective professional development, thus making the learning a continuous cycle.

Provides Coaching and Expert Support

Coaching and expert support for teacher professional learning and development is key for the efficacy of the educator and student achievement. There has been a push throughout the country to implement coaching models within school districts to provide expert support for teacher pedagogy and content. Jim Knight (2018) defines a coach as a person who partners with teachers to help them improve teaching and learning so students are more successful. Coaching is conducted within a collaborative setting to

analyze current realities, develop goals and to identify, support, and explain strategies for teachers to meet personal, school, and state goals (Knight, 2018). Bambrick-Santoyo (2016) believes that, just like doctors, professional athletes, and performance artists,, teachers also need coaches to train and improve their craft. . Thus, the researchers developed three Principles of Coaching:

· Principle 1: Go Granular,

· Principle 2: Plan, Practice, Follow Up, Repeat, and

· Principle 3: Make Feedback More Frequent (Bambrick-Santoyo, p. 26, 2016)

Each of the three principles developed by Bambrick-Santoyo (2016) directly correlate with teacher effectiveness and effective professional development. Principle 1: Go Granular, refers to coaches providing content and pedagogical skills to teachers in chunks. This provides teachers time to practice new skills and ideologies to reach mastery. Principle 2: Plan, Practice, Follow Up, Repeat ties into Principle 1 by giving this practice time for teachers to hone the chucked skills learned under Principle 1. Principle 3: Make Feedback more frequent aides in maximizing all possible opportunities for teachers to receive feedback from peers, coaches, and administrators to improve their practices (Bambrick-Santoyo, 2016). Coaching as a design option for professional learning is beneficial to teachers in the classroom and provides a new methodology to assist in changing teacher perspectives on instruction (Strepp, 2014).

Offers Feedback and Reflection

Professional development opportunities for teachers that incorporate built-in time for reflection and feedback have led to increased student learning (Darling-Hammond, Hyler, and Gardner, 2017). Principle 3 in Bambrick-Santoyo's (2016) essential coaching techniques stress the importance of feedback. Whether the input occurs from a coach, another teacher, or an administrator, feedback must occur often. Principle 3 states the importance of making "the most of every observation by increasing the frequency of feedback (Bambrick-Santoyo, 2016, p. 26)." Feedback and reflection opportunities go beyond the scope of teacher observations. Any opportunity that offers time for feedback and reflection needs to be supported. Such opportunities must allow for both positive and constructive responses that are authentic of teacher practices (Darling-Hammond, Hyler, and Gardner, 2017). At first, this may be alarming to teachers who have never faced this style of reflection or feedback (Bambrick-Santoyo, 2016). Establishing and creating a culture for feedback and reflection in a safe and transparent environment is essential for optimal professional learning (Darling-Hammond, Hyler, and Gardner, 2016).

Sustained Duration

As previously mentioned, professional development norms have, for a long time, involved opportunities that are lecture-based, sit-and-get workshops that do not include active learning. Many of these professional development workshops are one-offs, meaning a one-time workshop on a topic, never to be taught again (Darling-Hammond, Hyler, and Gardner, 2017). Teachers often receive materials from these workshops that are filed away in storage. Research has shown that these one-off workshops do not

transfer to meaningful professional learning (Darling-Hammond, Hyler, and Gardner, 2017). Just like students in a classroom learning new content, teachers also need to learn new practices over an extended period to prioritize topics, concepts, and practices which have a greater chance of being transferred into the classroom to assist in student learning (Darling-Hammond, Hyler, and Gardner, 2017).It is important to point out that whether all or most of the features discussed above are implemented in a professional development model, the actual implementation of the presentation must be effective to produce the desired results (Darling-Hammond, Hyler, and Gardner, 2017). The end goal of any teacher professional development design is to produce more effective educators which will should lead to improved student achievement (Tournaki, Lyublinskaya, & Carolan, 2011).

Mizell (2010) identifies several benefits for teachers, administrators and students with the implementation of effective professional development; 1) educators learn new knowledge and skills because of their participation; 2) educators use what they learn to improve teaching and leadership; and 3) student learning and achievement increase because educators use what they learned in professional development (p. 16). Through the implementation of effective professional development, educators can enhance current instructional practices, discuss and reflect on best instructional practices, and change their practices to meet the needs of their students (Guskey, 2002). Research conducted by the U.S. Department of Education's National Center for Education Evaluation and Regional Assistance (2007) concluded that student achievement can improve by as much as 21 percentile points if teachers participate in well-designed professional development

programs. The benefits of effective professional development should focus on answering yes to two key questions: 1) did the professional development benefit the teachers and administrators of the school? and, 2) did the professional development benefit the students? (Mizell, 2010).

Teacher Effectiveness

Teacher effectiveness can be subjective due to the location of the school, student achievement, and teacher evaluations. What one person may consider excellent teaching; another may consider average. A teacher that is effective in a suburban classroom setting may not be viewed as effective in an urban classroom location (Jones, 2017). Because of the subjective nature in defining teacher effectiveness, it is all too often associated with the success of student achievement scores (Varlas, 2009). In addition to its connection to student achievement, teacher effectiveness has also been directly correlated to teacher evaluations. Over the past decade, school districts, educational foundations, and the U.S. Department of Education have been conducting research to find ways in which to identify effective teaching (Anderson, Butler, Palmiter, & Arcaira, 2016). For the purpose of this research, teacher effectiveness will be defined as the contributions that a teacher makes to his or her students' achievement (Allen, et. al., 2007).

The Study of Emerging Teacher Evaluation Systems (2016) looked at different evaluation tools implemented within eight school districts throughout the United States. The findings from this study showed that the overall goal was to improve instruction, and each of the classroom observation tool rubrics used included similar areas of teaching

practices. (Anderson, et. al., 2016). The study's evaluation tools at all eight of the identified school districts were aligned to the domains and components of either the Danielson Framework for Teaching Evaluation Instrument (2013) or Marzano's (2007) Teacher Evaluation Model. Research suggests that several key components are directly tied to teacher effectiveness: planning and preparation, classroom environment, and instruction (Tournaki, Lyublinskaya, & Carolan, 2011). Coincidentally, these components also make up three of the four domains within the Danielson Framework for Teaching (2019). Marzano's (2007) Teacher Evaluation Model also embeds these components into two of the four domains: 1) classroom strategies and behaviors, and 2) preparing and planning, however, still addressing these critical components for effective teaching to occur.

Planning and preparation

Both Marzano (2007) and Danielson (2019) identify teacher planning and preparation as a key component in teacher effectiveness. Effective teachers know the content, they understand the dynamics of the classroom, and they have a plan in place to address the needs of all of the students within the classroom (Marzano, 2007, Danielson, 2013, 2019). Also an effective teacher should be an expert in pedagogy and design coherent lessons that set instructional goals and assess student learning (Danielson, 2013, 2019). Marzano (2007) claims that effective planning and preparation incorporates scaffolding techniques to address the needs of the English language learners, special

education students and students whose home environments are not conducive to supporting the school environment.

Classroom Environment

Danielson (2019) explicitly identifies a domain with the Framework for Teaching as Classroom Environment. Under Domain 2: The Classroom Environment, effective teachers expertly incorporate an environment instrumental in exuding respect, rapport, and a culture of learning (Danielson, 2019). In addition, classroom procedures, organization, and management fall under this domain (2019). Marzano (2007) combines classroom strategies and behaviors under Domain 1 of The Marzano Teacher Evaluation Model. Marzano (2007) separates Domain 1 into three parts; routine events, addressing content, and enacted on the spot.

The classroom environment falls within two of these three parts: routine events and enacted on the spot (2007). Establishing and maintaining classroom rules, effective relationships, and communicating high expectations for all students are piece within routine events, organization of the classroom, and are part of enacted on the spot within Domain 1 (2007). Whether utilizing the Danielson Framework for Teaching (2019) or the Marzano Teacher Evaluation Model (2007), the classroom environment is a key indicator of teacher effectiveness (Tournaki, Lyublinskaya, & Carolan, 2011).

Instruction

Effective teachers can implement varying instructional techniques to ensure that all students are engaged in learning. According to Tournaki, Lyublinskaya, and Carolan (2011), when students are actively engaged in their learning, academic success is maximized. Danielson (2013) finds that students benefit in having an active role in their own learning. Student self-monitoring, self-reflection, and self-assessment are incorporated into Domain 3 of the Danielson Framework (Danielson, 2019). Student to student and student to teacher communication, as well as questioning strategies are key components in Danielson's (2013) Domain 3. Marzano (2007) delves deeper into student understanding and digestion of the content taught by rationalizing and reasoning skills. Danielson's (2013) and Marzano's (2007) goals are to engage students in their understanding and learning of content to achieve academic success.

Professional development Impact on Teacher Effectiveness

Professional development for teachers is a key component in the overall educational process and vital for systematic reform (Talevski, Janusheva, & Pejchinovska, 2011). The use of professional development as a way to improve teacher effectiveness has spread to school districts throughout the world (Mitzell, 2010). Implementing effective professional development leads to improved levels of teacher effectiveness (Howard, 2009). For this to occur, teachers must be involved in a continuous cycle of training opportunities to continue growing, learning, and acquiring new skills to create stimulating classroom environments for students (Talevski, Janusheva, & Pejchinovska, 2011). Educators that experience effective professional

development may lead to changes in their classroom instructional methods, allow them to engage in different resources that are utilized during planning and preparation, and can change the way they communicate with colleagues or students (Howard, 2009). These changes in teaching practices can also lead to improved teacher evaluation scores and increase student achievement scores (Darling-Hammond, Hyler, & Gardner, 2017).

According to Howard (2009), teacher professional development learning in isolation, or not of a sustained duration, is problematic to teacher effectiveness. Teachers who do not receive continuous and focused support on the methodologies learned during professional development, will become frustrated with new practices and cease to implement them in the classroom (Howard, 2009). Many schools are now encouraging teachers to get more involved in their own learning by using different professional development designs (Trehearn, 2010). Research conducted by Talevski, Janusheva, and Pejchinovska (2011) suggests the implementation of learning teams as a continued approach for professional development. Using this approach, teachers will have continuous learning and planning to utilize new techniques and strategies regularly, while being able to reflect on practices for improvement in their own learning and student learning (Talevski, Janusheva, & Pejchinovska, 2011). Trehearn (2010) also contents that teachers must work together to become "more effective instructors (p. 28).”

Research conducted by Shaha, Glassett, and Copas (2015) studied the impact of professional development on teacher effectiveness and student achievement. The research data showed that teachers who consistently participated in professional development

opportunities had greater gains in student achievement and teacher observation scores (Shaha, Glassett, & Copas, 2015). Those same teachers were observed more frequently by administrators thus given more feedback in regard to specific areas aligned to the professional development undertakings (2015). The implications of this research suggested that teacher observations were conducted with fidelity to the observation rubric and protocol (Shaha, Glassett, & Copas, 2015).

Teacher Performance and Student Achievement

Research has shown that teacher effectiveness is directly related to teacher evaluations (Shaha, Glassett, & Copas, 2015). School districts throughout the United States continue to develop new systems in which to evaluate teachers (Lash, Tran, & Huang, 2016). Over the past decade, the structure of teacher evaluations has been reformed (Batchelor, 2008). The Danielson Framework for Teaching (2013) is a product of this reform and emerged as a standards-based tool for teacher observations. Educators can utilize this evaluation framework to create dialogue with colleagues to learn and advance their current teaching methods to support student achievement (Batchelor, 2008).

Teacher evaluations are more often directly correlated to performance-based monetary bonuses, promotions, and tenure. However, low evaluation scores can lead to dismissal (Lash, Tran, and Huang, 2016). The importance of fidelity to any evaluation framework is a major component in identifying teacher effectiveness. Lash, Tran, and Huang (2016) contend that there may be several reasons that validity of teacher ratings on evaluations could be skewed: 1) principals may not feel comfortable rating teachers low,

2) lack of proficient training on the observation tool and 3) misidentification of the level of teaching skill aligned to the observation tool.

The Danielson Framework for Teaching was used as the observation tool in this research study. The Danielson Framework for Teaching (2019) is an observation tool comprised of four domains and 22 overall components. Scoring is based on four levels: (1) Unsatisfactory, (2) Basic, (3) Proficient, and (4) Distinguished (2019). The overall findings of the research conducted by Lash, Tran, and Huang (2016) suggested that principals scored the majority of the teachers at Proficient and/or Distinguished, but very few teachers were identified as being Unsatisfactory or Basic.

A research study conducted by Sartain, Stoelinga, and Brown (2011) in Chicago Public Schools found startling results with the implementation of the Danielson Framework for Teaching. Outside observers were brought in to conduct teacher observations in Chicago and had no previous knowledge of the teachers or their practices. The outside observers scored teachers on the Danielson Framework for Teaching using primarily the rating levels of 2 or 3. The same teachers were observed by the principal, who rated about half of the teachers using primarily level 3 while splitting the other half of the teachers with rating levels of either 2 or 4 (Sartain, Stoelinga, and Brown, 2011). Perhaps the rationale for this difference in scoring could be that the principals do have knowledge of the teachers from working with them day-to-day and the observers do not have this background knowledge (Sartain, Stoelinga, and Brown, 2011).

While the results of the research studies conducted on the validity of teacher evaluations may give a misconception to the reality of teacher effectiveness, benefits from the overall teacher evaluation cycle also exist (Shaha, Glassett, & Copas, 2015). Teachers who receive frequent feedback in regards to their instructional practices have shown improvements in their craft and student achievement (2015). Professional development opportunities can also be provided to teachers in areas that need improvement for them to become more successful in the classroom (Mitzell, 2010).

One research study involved feedback collected from principals on the purpose of teacher evaluations (Xu, 2001). Xu's (2001). The research found that 21% of the principals studied believed that teacher evaluations were implemented to improve student achievement and learning in the classroom. With the implementation of high-stakes testing in most states within the United States, like Texas, teacher performance and effectiveness are key in student achievement and growth (Batchelor, 2008).

However, other research studies have shown that teacher effectiveness is the most important factor in determining student success (Allen, et. al., 2007). As previously mentioned in this chapter, teacher effectiveness is often associated with teacher evaluation scores (Shaha, Glassett, & Copas, 2015). Unfortunately, teacher evaluation scores are not always a true indicator of teacher performance (Batchelor, 2008). Danielson (2001) suggests that evaluations should focus less on the perception of teacher performance and more on the connections between the teacher and students, as well as student engagement and the classroom environment.

Under the funding of the Bill and Melinda Gates Foundation, a 3-year research study was conducted; The Measures of Effective Teaching Project (MET) (Phillips and Olsen, 2013). According to the MET Project, approximately two-thirds of all teachers within the United States believe that traditional methods of teacher evaluations do not accurately align with what is actually happening in the classroom from day-to-day (The Bill and Melinda Gates Foundation, 2017). Due to this data, the MET research hoped to identify better ways in which to develop more effective teachers (Phillips & Olsen, 2013, p. 3). The researchers involved in the MET Project utilized three determining measures in the identification of effective teachers: classroom observations, student surveys, and student achievement gains (The Bill and Melinda Gates Foundation, 2017). The Danielson Framework for Teachers was utilized as a key component in the classroom observation of teachers for this research (The Bill and Melinda Gates Foundation, 2017). The findings after the 3-year MET Project showed that teachers who were previously determined to be effective generated more productive students. While teachers who were already determined to be less effective caused students to learn less (The Bill and Melinda Gates Foundation, 2017).

Measuring and Supporting Effective Teaching

Based on the research discussed in this chapter's literature review, it is necessary to shift the mindsets of educators throughout the United States in regard to professional development (Mitzell, 2010). Professional development leads to professional learning, which leads to professional growth (Darling-Hammond, Hyler, & Gardner, 2017). For

effective professional development to have a positive impact in the classroom, educators need to receive options and a continuous model of support in their professional learning (Mitzell, 2010). Some question the modes of support mainly due to the issue that this support, in order to be justified, must be measurable data (DuFour, DuFour, Eaker, Many, 2006). This leads to data collection from both classroom observations and student assessments. Two identified data collection methods will be discussed in this chapter include: 1) Instructional Rounds, and 2) Northwest Evaluation Association Measures of Academic Progress (NWEA MAP).

Instructional Rounds

The Instructional Rounds model was developed based upon the medical rounds process in which teams of doctors routinely discussed and developed diagnoses and treatments for patients (City, Elmore, Fiarman, and Tietel, 2016). This practice leads to doctors developing and honing their professional practices and knowledge (City, Elmore, Fiarman, and Tietel, 2016). The Instructional Rounds process is a strategy for continuous improvement for classroom teachers,,school, and district (Meyer-Looze, 2015). The model also focuses on shared learning as opposed to individual learning (City, Elmore, Fiarman, and Tietel, 2016).

The Instructional Rounds model is a valuable tool that schools and districts can use to strengthen educators' skills in both content and pedagogy, and can develop a culture of collaboration (Marzano, 2011). In education, the overall idea of this model centers around the instructional core (Meyer-Looze, 2015). The instructional core

fundamentally is centered upon three questions: 1) What are teachers doing and saying?, 2) What are students doing and saying?, and 3) What is the task? (City, Elmore, Fiarman, and Tietel, 2016, p. 88).

The Instructional Rounds process for schools or districts follows specific steps for implementation. These steps include: 1) identification of the problem of practice, 2) observation of current practice within the instructional core, 3) observation data debrief, and 4) identification of the next level of work (City, Elmore, Fiarman, and Tietel, 2016).

1) Identification of the problem of practice

The first step in the Instructional Rounds process is to identify a problem of practice (City, Elmore, Fiarman, and Tietel, 2016). A school leadership team or a school improvement committee is used to determine the problem of practice (Meyer-Looze, 2015). To identify a problem of practice, initial classroom observations and Instructional Rounds must be conducted. During this time, data should be collected to determine an area of focus that if changed would lead to improved student learning (City, Elmore, Fiarman, and Tietel, 2016). This means that the problem of practice must be aligned to the instructional core (City, Elmore, Fiarman, and Tietel, 2016). The data collected during these initial observations can help leadership teams detect gaps in the overall school and district vision, as well as identify where they are at the current time (Meyer-Looze, 2015). The problem of practice would essentially bridge those gaps if goals are aligned and met (Meyer-Looze, 2015).

2) Observation of current practice within the instructional core

The purpose of any observation is to collect data (Danielson, 2001). During the Instructional Rounds process data is collected from observations that focuse on teaching and learning (City, Elmore, Fiarman, and Tietel, 2016). Again, the focus is always centered around the instructional core, and during observations it is highly recommended to speak with students in regard to their learning (City, Elmore, Fiarman, and Tietel, 2016). This method is important to identify current practices for the content implementation of teachers. Observation data collection from numerous classrooms is also necessary during this step to identify patterns during the debriefing (Meyer-Looze, 2015).

3) Observation debrief

The importance of the observation debrief is to move from focusing on what was seen during the observations to what learning was taking place (City, Elmore, Fiarman, and Tietel, 2016). Three steps are necessary to accurately complete this phase of the instructional rounds process: description, analysis, and prediction (City, Elmore, Fiarman, and Tietel, 2016). Once the observations are completed, each member of the school leadership team must have the time to reflect on the overall description of the classrooms visited and identify the evidence that pertains to what was seen (City, Elmore, Fiarman, and Tietel, 2016). The team must then come to a consensus on what they saw and analyze the data by looking for patterns or consistencies (City, Elmore, Fiarman, and Tietel, 2016). Lastly, the team must predict outcomes based on the instructional core. This is completed by identification of the task presented and linking it to the student learning.

The team must determine what would lead to the student learning that we want to see (City, Elmore, Fiarman, and Tietel, 2016).

4) Identification of the next level of work

Since the Instructional Rounds process is a continuous cycle for improvement, it does not end with the data analysis or prediction stages. The overall goal is to take the data that was analyzed and allow teachers to learn from this process and apply it to everyday practice in order to improve (City, Elmore, Fiarman, and Tietel, 2016). For this process to be successful, collaboration is necessary (City, Elmore, Fiarman, and Tietel, 2016). Team members must disseminate the analyzed data to the teachers and assist them with professional development options to address the problem of practice (Meyer-Looze, 2015).

For the Instructional Rounds process to be effective, it must be implemented to fidelity from beginning to end (Meyer-Looze, 2015). Also, research suggests that the Instructional Rounds process by itself is not recommended (Meyer-Looze, 2015). However, when combined with continuous professional development, effective dialogue on best practices, and professional learning communities, the Instructional Rounds process is a way to present teachers with the current realism of the school or district (Meyer-Looze, 2015).

Northwest Evaluation Association Measures of Academic Progress

Northwest Evaluation Association Measure of Academic Progress (NWEA MAP) is an online computer-based adaptive test that is unique in that the test advances student questions based on student responses (Fleming, 2017). The test generates harder questions as students answer more and more questions correctly, but will generate easier questions if students answer incorrectly (Fleming, 2017). The NWEA MAP test is provided to students in school districts as interim assessments throughout the academic year to measure student growth that is aligned to the state standards (Li and Tran, 2017). Student growth on the NWEA MAP is measured based upon a Rasch Unit (RIT) scale from 100 to 350 (Li and Tran, 2017). The MAP RIT score helps to determine the current level of a student and academic growth over time (Fleming, 2017).

While teachers currently implement formative and summative assessments to continuously monitor student learning, it is often difficult for teachers to determine the levels of learning gaps for individual students (Cordray, Pion, Brandt, Molefe, Tobi, & Garcia, 2012). According to the 2015 NWEA MAP Growth Normative Data Report (2015), MAP RIT scores can assist teachers in targeting the identified needs and levels of each student for an individualized learning plan. Teachers can address learning gaps in understanding and misconceptions with the content while continuing to build on the knowledge necessary to reach the mastery level of the state standards to fill the learning gaps (Bjorklund-Young & Bokoski, 2016). NWEA MAP also serves as an important resource in providing teachers with valid information about student learning so that they can change their teaching practices to meet the individual needs of the students (Bjorklund-Young & Bokoski, 2016).

A case study on how to improve instruction with MAP growth and learning walks (NWEA, June 2019) was conducted by NWEA at Cicero School District 99 located in Illinois. The school district began implanting NWEA MAP within the school in 2011. The school was low performing and had a 90% economically disadvantaged population and about 50% of the student population were English language learners (NWEA, June 2019). Implementation of the NWEA MAP test showed that students were performing at least ten points below the national norm in Math and seven points below in Reading. The superintendent identified needs based on the NWEA MAP data, teacher feedback, and the implementation of focused learning walks. This case study found that by understanding and using the NWEA MAP data consistently, as well as the data collected from learning walks to drive instruction and classroom practices, students showed growth year after year (NWEA, June 2019). The teachers and staff realized the benefits of the data collection and began to request additional professional development to understand the NWEA MAP resources. This led to learning communities throughout the school district (NWEA, June 2019). The school district continues to implement the NWEA MAP and focuses instruction on data while continuing to see student growth each year (NWEA, June 2019).

Another case study was conducted at Oconee County School District in South Carolina that used NWEA MAP data to inform instruction and increase academic success (NWEA, April 2019). Due to the varying levels of students within each classroom, teachers within the district use NWEA MAP data for small group instruction and differentiated activities (NWEA, April 2019). Using the data in this manner allowed the

teachers to determine the starting point for learning for each student and individualize instruction (NWEA, April 2019). With the improved growth levels and student success, the district implemented NWEA MAP at all levels: elementary, middle, and high school. Additional, they continue to use data to inform instruction as well as fill learning gaps through intervention resources (NWEA, April 2019).

With any initiative implementation, there must be fidelity to the practices to see sustained results (Ado, 2013). When looking at the two case studies previously presented, both outcomes were successful and led to increased student achievement and the districtwide implementation of the NWEA MAP and resources consistently for change to occur. In a report presented by the Institute of Education Sciences through the U.S. Department of Education (2012), five school districts showed inconsistencies in the usage of NWEA MAP data to differentiate and individualize instruction. The report findings indicated that with moderate fidelity to the NWEA MAP data, teachers were not more likely than the control group teachers to apply differentiated instructional practices within their classes to meet the identified data needs of the students (Cordray, Pion, Brandt, Molefe, Tobi, & Garcia, 2012).

Often, when educators see the benefits of an initiative such as the Instructional Rounds process or the use of NWEA MAP, they want to learn more and ask for professional development opportunities to advance their own learning (Darling-Hammond, Hyler, and Gardner, 2017). Professional learning options and supports

discussed in this chapter will include: 1) Instructional Best Strategies, 2) Professional Learning Communities), and 3) Micro-credentials.

Instructional Best Strategies

According to Alberta Learning (2002), instructional strategies are "techniques teachers use to help students become independent, strategic thinkers (p. 1)." Lemov (2015) compares great teaching to art in that "great art relies on the mastery and application of foundational skills, learned through diligent study – craftsmanship (p. 1)." For students to relish from the benefits of instructional best strategies, effective teaching needs to take place (Moore, 2015). For this to occur, educators must embrace continuous professional development opportunities to refine their knowledge and skills (Moore, 2015). Instructional best strategies and practices take on many different forms, but several key components resonate from strategy to strategy; the strategies motivate and engage students in their own learning, the strategies are collaborative, and the strategies are reflective (Moore, 2015). Each of these components help to encourage students to take ownership of his or her own learning (Moore, 2015). Lemov (2015) extends these components into more concise and observable measures of instructional strategies that include data usage, academic cultures, ratio, and classroom cultures. When comparing Moore (2015) and Lemov's (2015) ideals regarding best instructional practices, they are inclusive of one another in that each of Moore's key components are a part of each of Lemov's key components.

Lemov (2015) believes that for teachers to master the art of checking for understanding, he or she must move from the idea of "I taught it" to "They learned it (Lemov, 2015, p. 24)." Instructional best strategies used to check for understanding are consistently implemented throughout every class lesson, and more importantly, they are implemented before the students leave the class and the lesson is over (Lemov, 2015). This practice ensures that academic relationships are built between the students and the teachers for constant, clear, and concise immediate feedback (Lemov, 2015). While practices can include exit tickets, quizzes, tests, and homework, checking for understanding while the students are present provides the teachers with "real time" data to more effectively and efficiently meet the needs of the students (Lemov, 2015).

Academic culture, or academic "ethos," determines the levels of rigor expected in the classroom and lesson (Lemov, 2015). Establishing an academic ethos in a classroom is an important instructional best strategy because it strengthens relationships that are built between teachers with students, students with teachers, and students with students (Lemov, 2015). According to Lemov (2015), academic ethos includes setting high academic expectations, planning for success, the structure of the lesson, and the pacing of the lesson. The use of strategies that encompass academic ethos ensures that teachers are planning and preparing lessons that go beyond the norm to develop more complex and rigorous learning opportunities for students (Lemov, 2015).

Ratio is an important factor when used as an instructional best practice (Lemov, 2015). Lemov (2015) differentiates between two styles of ratio: participation ratio and

think ratio. Participation ratio identifies who is participating and how often they participate in the learning. The more that students participate in speaking, thinking, writing, and responding to questions helps to maximize learning opportunities (Lemov, 2015). Think ratio looks at the quality and rigor that the students are engaged in (Lemov, 2015). In this respect, Lemov (2015) argues that participation ratio focuses on engagement and think ratio as focuses on rigor.

Classroom culture includes systems and routines, high behavioral expectations, and building character and trust (Lemov, 2015). Lemov (2015) identifies five principles of classroom culture: 1) discipline, 2) management, 3) control, 4) influence, and 5) engagement. With a commitment to the implementation of these five principles, classroom culture is expected to be strong (Lemov, 2015) Discipline requires teachers to teach students how to be students and requires planning from the teacher to do so. Management is the reinforcement of behaviors to include rewards and consequences. Control refers to the teachers' ability to have a student do what is asked of him or her (Lemov, 2015). "Influence is the next step beyond control (Lemov, p. 346, 2015)." This principle leads to the students internalizing the ideas that the teacher suggests (Lemov, 2015). Finally, engagement involves the depth at which students are challenged by the lesson (Lemov, 2015).

As with any profession, the art of teaching requires time, attention to detail, professional development, and refinement of professional techniques to master teaching (Lemov, 2015). Instructional best practices are only a piece of the puzzle for effective

teaching to take place. Teachers are forever learning new knowledge, skills, and techniques to reach mastery and grow their students to success (Lemov, 2015).

Professional Learning Communities

Professional Learning Communities (PLCs) are a popular professional development option for educators (Darling-Hammond, Hyler, & Gardner, 2017). Research suggests that when PLCs are implemented to fidelity, teachers improve practices and there are increases in student achievement (Darling-Hammond, Hyler, & Gardner, 2017). Well-implemented PLCs also provide educators with job-embedded professional learning that is active, collaborative, and reflective (Darling-Hammond, Hyler, and Gardner, 2017). The implementation of PLCs is a strong pathway to overall school improvement as they are seen as an essential professional development approach (DuFour, DuFour, Eaker, & Many, 2006). PLCs emerged out of an era of educational reform that called for school improvement and increased student achievement within the United States during the 1980s and early 1990s (DuFour, DuFour, Eaker, & Many, 2006). PLCs refers to educators working in a collaborative environment on a regular and consistent basis to share best practices and skills to enhance student learning and success (DuFour, DuFour, Eaker, & Many, 2006). DuFour, DuFour, Eaker, & Many (2006) believe that a PLC is: 1) a focus on learning, 2) a collaborative culture with a focus on learning for all, 3) collective inquiry into best practice and current reality, 4) learning by doing, 5) a commitment to continuous improvement, and 6) results orientation.

These learning communities help clarify what the students are required to learn and identify ways to monitor student learning (DuFour, DuFour, Eaker, & Many, 2006). According to the researchers (2006), during a PLC, teachers need to be provided with the state standards to align those with learning targets identified within the district curriculum. This strategy of beginning with the required state standard as a target assists educators in developing common assessments that meet the rigor and expectation to be achieved (Trehearn, 2010). Educators participating in the PLCs strive to develop engaging, rigorous and high levels of learning for all students by utilizing results-oriented goals to track progress (DuFour, DuFour, Eaker, & Many, 2006).

Educators must recognize the importance of a collaborative culture and learning environment for all when working in a PLC (DuFour, DuFour, Eaker, & Many, 2006). PLC members' work in a collaborative environment with shared goals linked to the overall learning purpose for all students and PLC members (DuFour, DuFour, Eaker, & Many, 2006). During PLCs, teachers share strategies, discuss methods for implementation, and work together to improve their overall classroom practices to improve student achievement (DuFour, DuFour, Eaker, & Many, 2006). This leads teachers to engage in collective inquiry into what practices and strategies work best in student classroom learning during PLCs. This practice assists PLC members in learning new skills and a focused awareness on shifts in habits and beliefs, which can eventually lead to an entire shift in the culture and climate of the school (DuFour, DuFour, Eaker, & Many, 2006).

Teacher learning and development during PLCs can lead to new sources of knowledge and illicit confidence during the implementation of new strategies within the classroom (Darling-Hammond, Hyler, and Gardner, 2017). PLC members know the importance of learning by doing so that change will occur (DuFour, DuFour, Eaker, & Many, 2006). Teachers also recognize that the PLC process is continuous. Evidence of implementation, which includes common assessments, best practices, and effective instructional strategies, must be collected, discussed and reflected upon to lead to continuous learning and continuous improvement (DuFour, DuFour, Eaker, & Many, 2006). A focus on results leads PLC members to develop measurable goals in alignment with the team vision as well as the overall campus or district vision for learning (DuFour, DuFour, Eaker, & Many, 2006).

Micro-credentials

Another option that is growing in popularity with educators as an alternative form of professional development is the use of micro-credentials. According to the National Education Association's departments of Collective Bargaining and Member Advocacy and Teacher Quality (2018), micro-credentials are job-embedded, competency-based, digital pathways that educators can choose based on their individualized growth needs. While relatively new as an option for professional development, micro-credentials focus on professional learning that teachers choose based on his or her own needs (Acree, 2017). The skills acquired are then easily turned around and implemented in the classroom (DeMonte, 2017). With the high demands for students throughout the United

States to be prepared for 21st century skills, teachers also need to continue to acquire new skills to ensure this learning (Crow & Pipkin, 2017).

Micro-credentials are made up of competencies, or small pieces of a complex instructional skill (Acree, 2017). Teachers have the option of choosing the competencies that are the best fit for his or her own needs. As competencies are completed, teachers bring together all of the necessary skills to demonstrate mastery level of the overall instructional skill being learned (DeMonte, 2017). An outside reviewer then appraises the work presented and awards the competency or requests modifications to reach the mastery level (2017).

Since micro-credentials are a new professional development option for educators, little research exists other than teacher feedback (DeMonte, 2017). The Friday Institute for Educational Innovation out of North Carolina University (Acree, 2017) developed and implemented fifteen micro-credentials. Over a period of three months, the Institute conducted surveys on teachers in relation to the micro-credentials. Teacher feedback included the following: 1) Teachers who completed micro-credentials wanted to earn more micro-credentials, 2) The micro-credentials being earned encouraged teachers to implement the skills in the classroom, and 3) Micro-credentials scaffold teachers to engage at an increased level of rigor (Acree, 2017). Teachers also provided that completion of micro-credentials was not a one-size-fits-all process and that teachers completing the same micro-credential could approach the learning differently while still meeting mastery (Acree, 2017). As most teachers want to participate in professional

development that is directly related to what is happening in their own classroom, micro-credentials peak the interests of teachers (DeMonte, 2013). In a report from Digital Promise (2016), teachers expressed that they liked the format of the micro-credentials and believed that their skills and practices improve by earning a micro-credential.

With the increase in popularity and the need for alternative forms of professional development for educators, state education agencies and school districts across the country are implementing micro-credentials (DeMonte, 2017). According to the report generated by Digital Promise (2016), many school districts are also offering incentives to educators for the completion of micro-credential competencies and pathways. These incentives include converting micro-credentials to continuing education credits, including the equivalency of a Master's Degree. Another incentive includes stipends ranging from $200 to $600, depending upon the micro-credentials being earned (2016).

Summary

Much of the research mentioned throughout this paper manifested as consistent and successful when implemented with fidelity to classroom and teaching practices. This essentially led to improved student achievement and teacher practices. Studies conducted in which there was not consistent implementation or moderate fidelity to the initiate resulted in inconsistent or conflicting findings. The implementation of targeted and focused professional development is only a first step in the process to see increases in student performance on assessments and teacher improvement on evaluation scores. It is also necessary for a culture of learning to be established within the school district and all

educators must support the advancement of their knowledge and skills to achieve, not only effectiveness but also greatness. For the relationship between professional development and best instructional strategies to lead to increased teacher effectiveness and student performance, thorough steps need to be taken and investigated. Chapter 3 explains in detail the methodology of the study.

CHAPTER 3

METHODOLOGY

With the continued emphasis on effective professional development, the utilization of teacher evaluations, and improved student achievement, it is beneficial to continue investigating the affects that professional development and teacher evaluations have on student success. This research study is significant because it will provide an additional understanding of the relationships between the implementation of effective professional development, teacher evaluation scores, and student achievement. This chapter will identify the purpose of the research study, present the setting and participants, and describe the research method and plan that were used. Finally, this chapter will provide an account of data collection, including fiscal implications, and the validity of the research study.

Purpose of the Study

The purpose of this research study was to look at the implementation of targeted professional development planning and delivery based upon the identified problems of practice while focusing on specific instructional strategies. The research identifies the correlation, if any, between the implementation of targeted professional development planning of instructional strategies and teacher effectiveness on evaluation scores based on the district identified Instructional Rounds (IR) problem of practice developed from the Harvard Instructional Rounds Model. The research study focused on the targeted professional development and its effect on teacher effectiveness based upon evaluation

scores and student performance on norm-referenced test results from the Northwest Evaluation Association's Measure of Academic Progress exam (NWEA MAP).

Research Questions

1) What effect does the implementation of targeted professional development, based on Instructional Rounds Problems of Practice, have on teacher evaluation scores?

2) What effect does the implementation of targeted professional development planning, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

3) What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on teacher effectiveness?

4) What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

Setting and Participants

This study included seventeen 3rd through 5th grade elementary Math and Reading teachers from two campuses, Campus A and Campus B, within a West Texas charter school. Nine teachers were included in the sample group from Campus A and eight teachers from Campus B. This sample group included only teachers that had taught the same grade levels and subjects during both the 2018 - 2019 and 2019 - 2020 school years.

Both campuses are located within a large West Texas city near the Mexican/American border. Campus A is a K – 5 campus and Campus B is a K – 12 campus. Table 1 includes the enrollment and student demographic data for each of the campuses for the 2019 – 2020 school year.

Table 1

Student Demographic Data: 2019 – 2020 School Year

Campus	Enrollment	Economically Disadvantaged	White	Black	Hispanic	Asian
A	645	76.74%	2.32%	0.46%	95.65%	0.93%
B	1092	72.40%	10.40%	4.80%	80.50%	4.80%

Table 2 displays the number of students at each campus in third through fifth grades. This data table is being included for assessment data numbers, however, only overall assessment averages of student data will be represented within the results and findings of this research study.

Table 2

Grade Level Demographic Data: 2019 – 2020 School Year

Campus	3rd Grade Enrollment	4th Grade Enrollment	5th Grade Enrollment
A	109	109	109
B	78	101	106

Research Method and Plan

Action research, as defined by Stringer (2014), is "a systematic approach to investigation that enables people to find effective solutions to the problems that confront their everyday lives (p.1)." Based on this definition, this action research study investigated possible solutions to increase teacher effectiveness on evaluations and student growth on assessments through targeted district-level professional development and the use of targeted instructional strategies within the classrooms.

Participatory action research is a type of action research that closely aligns to the research study being conducted. Participatory Action Research (PAR) allows the researcher to have the freedom to explore practices within the scope of the research being conducted (Hendricks, 2017). This type of action research also allows the researcher to challenge unproductive educational work habits, as well as being transformational (2017). Thus, PAR was based on reflection, data collection and action that will improve a situation to make change (MacDonald, 2012).

A quantitative research approach was selected for this research study because all data sources used were quantitative data. All quantitative data was collected, analyzed, and integrated within the research. This study used archival data from the 2018 – 2019 school year to establish a baseline for teacher evaluation scores and the identified districtwide problem of practice. The identified district problem of practice from the 2018 – 2019 school year was utilized as the focus for the beginning of the year professional development plan for teachers based upon the Instructional Rounds process. 2019 – 2020

school year data from professional development and student assessment data from a norm-referenced assessment also used.

This action research focused on the following areas:

- Implementation of targeted instructional strategies through professional development
- Instructional rounds process
- Teacher evaluation and student growth

Implementation of Targeted Instructional Strategies through Professional Development

Implementation of professional development was conducted for third through fifth grade Math and Reading teachers at two elementary campuses, Campus A and Campus B, within the West Texas charter school district. This professional development was implemented throughout the school year beginning in August 2019 and ending in February 2020. Targeted instructional strategies were modeled and taught to the identified teachers throughout the school year during district professional development days conducted in August, September, October, and February. These instructional strategies were based on Doug Lemov's *Teach Like a Champion* (2015) premise and included the following six strategies:

Begin with the End – define an objective, how to achieve the objective, and design activities to get there; high-level planning that is thoughtful, consistent and focused.

Double Planning – cohesive planning and preparation of the actions of both the teacher and of the student; what will the teacher say and do, what will the student say and do.

Plan for Error – plan and prepare for common mistakes that will occur during a lesson in advance.

Turn and Talk – short, paired discussions in order to encourage and ensure that students have an opportunity to better formulate their thoughts.

Everybody Writes – providing students an opportunity to rigorously engage by giving them a chance to reflect in writing before asking them to discuss.

Exit Ticket – formative assessment at the end of class designed in alignment with the objective in order to evaluate student success in mastery.

Follow-through of the implementation for the targeted instructional strategies was on-going, and data was collected through classroom observational data sheets utilizing a pencil and paper data collection process. The instructional strategies were chosen to identify the district's problems of practice.

Instructional Rounds Process

The district-level professional development homed in on targeted instructional strategies based on the district problem of practice. The district problem of practice was determined through the Harvard Instructional Rounds Model. The model, as said before, developed in the medical profession to train doctors but in the education setting, instructional rounds model was designed to assist educators in working together in order

to determine the problems, solve problems and improve practices (City, Elmore, Fiarman, & Tietel, 2016).

The HPS West Texas charter district conducted Instructional Rounds training at both focus campuses for teachers and administrators at the beginning of the 2019 – 2020 school year. Campuses and the district then identified Instructional Rounds teams in order to conduct monthly rounds onsite in schools and to conduct district-wide rounds in order to identify problems of practice. The district Instructional Rounds team included numerous members. The Area Superintendent, Director of Academics, Instructional Content Coaches (4), ESL Coordinator, Special Education Coordinator, Principals, Assistant Principals, and teachers (3) were asked to participate in the district rounds process. Data was collected using an Excel spreadsheet/Google Sheets at both the district and campus levels in order to determine both district and campus problems of practice. For this research study, the district problems of practice were determined to be: 1) planning and preparation and 2) student engagement. These two areas were the focus of the targeted instructional strategies taught and implemented, as well as identified areas for teacher evaluation growth.

Teacher Evaluation and Student Growth

This action research identified possible increases in both teacher effectiveness on evaluation scores and student growth. For the sake of this action research, teacher effectiveness was based on teacher evaluation scores that reflected the identified problem of practice. Currently, the school district utilizes the *Framework for Teaching* from The

Danielson Group as a backdrop for the teacher evaluation system (Danielson, 2019). The Danielson Group (2019) *Framework for Teaching* includes a total of 22 components within 4 domains. The domains and components within *The Framework for Teaching Evaluation Instrument* (2013) are as follows:

- **Domain 1: Planning and Preparation**

  -Component 1a: Demonstrating Knowledge of Content and Pedagogy

  -Component 1b: Demonstrating Knowledge of Students

  -Component 1c: Setting Instructional Outcomes

  -Component 1d: Demonstrating Knowledge of Resources

  -Component 1e: Designing Coherent Instruction

  -Component 1f: Designing Student Assessments

- **Domain 2: The Classroom Environment**

  -Component 2a: Creating an Environment of Respect and Rapport

  -Component 2b: Establishing a Culture for Learning

  -Component 2c: Managing Classroom Procedures

  -Component 2d: Managing Student Behavior

  -Component 2e: Organizing Physical Space

- **Domain 3: Instruction**

-Component 3a: Communicating with Students

-Component 3b: Using Questioning and Discussion Techniques

-Component 3c: Engaging Students in Learning

-Component 3d: Providing Feedback to Students

-Component 3e: Demonstrating Flexibility and Responsiveness

- **Domain 4: Professional Responsibilities**

-Component 4a: Reflecting on Teaching

-Component 4b: Maintaining Accurate Records

-Component 4c: Communicating with Families

-Component 4d: Participating in the Professional Community

-Component 4e: Growing and Developing Professionally

-Component 4f: Showing Professionalism

While the Framework includes four domains and a total of 22 components within those domains, the West Texas charter school district only identifies 5 components within the evaluation system for the teachers. These components, including the domains utilized from *The Framework for Teaching Evaluation Instrument* (2013) are:

- **Domain 1: Planning and Preparation**

-Component 1c: Setting Instructional Outcomes

- **Domain 2: The Classroom Environment**

  -Component 2c: Managing Classroom Procedures

- **Domain 3: Instruction**

  -Component 3b: Using Questioning and Discussion Techniques

  -Component 3c: Engaging Students in Learning

  -Component 3d: Providing Feedback to Students (Danielson, 2013)

Within each domain and component from *The Framework for Teaching Evaluation Instrument* (2013), teachers were evaluated using ratings which ranged from a score of 1 to 4:

- 1 – Unsatisfactory
- 2 – Basic
- 3 – Proficient
- 4 – Distinguished

Historical teacher evaluation data from the 2018 – 2019 school year was used as a baseline for data collection. For the sake of this research study, and the district identified problems of practice, the focus will be on *The Framework for Teaching Evaluation Instrument* (2013) Components 1c: Setting Instructional Outcomes, and 3c: Engaging Students in Learning when analyzing data from teacher evaluations. The teacher evaluation data comprised of an average score from the focus teachers' evaluation scores

based on the targeted domain(s) and component(s). These averages were then compared with the teacher evaluation averages data from the 2019 – 2020 school year to determine outcomes. For calibration purposes in regards to fidelity to *The Framework for Teaching Evaluation Instrument* (2013), all academic administrators (Principals and Assistant Principals of Academics) participated in a two-day, face-to-face Danielson professional development training. These professional development training days took place at the two focus campuses, and actual classroom and teacher data was collected for training purposes. Day one of the Danielson training focused on observational skills. According to the My Learning Plan (MLP) Support Specialist (Yasmin, 2019), the observational skills training focused on the following:

- Review of the foundational skills for quality observations
- Hone in on the ability to apply the Framework for Teaching rubrics accurately and consistently to increase teacher growth and student learning
- Develop a better understanding of the key rubric attributes that define each component utilizing the Evaluation Tool
- Strengthen the skills necessary to collect objective evidence efficiently and without judgment of what occurs in the classroom
- Identify, in a lesson, the evidence related to the components within the evaluation tool rubric
- Align evidence to the correct component and assign a Level of Performance based on the preponderance of evidence

- Compare and analyze the evaluation of classroom videos to master scorers and identify reasons for any differences

The second day of the Danielson professional development focused on conducting learning walks with a Framework Specialist. This professional development day included:

- A review of the steps in order to conduct an effective observation
- The Framework Specialist and the administrator(s) observed a classroom and collected instructional evidence
- The Framework Specialist and the administrator(s) compared evidence and aligned the evidence to the appropriate component and Level of Performance then discussed the rationale behind the alignment
- The teacher was sent a copy of the evidence collected
- The Framework Specialist and the administrator(s) analyzed the evidence and developed priority-area questions based on the evidence which was then discussed in the Reflective Conference between the administrator(s) and the observed teacher
- The Framework Specialist modeled the conference with the classroom teacher
- The Framework Specialist and the administrator(s) debriefed the experience (Yasmin, 2019)

Student growth was based upon NWEA MAP Rasch UnIT (RIT) averages. NWEA is a research-based company that develops student assessments in order to assess

the growth of students in Reading, Math, Language usage and Science (NWEA, 2019). The NWEA MAP RIT score "represents a student's achievement level at any given moment and helps measure their academic growth over time (2019)." The Reading and Math RIT score averages will be compiled from the beginning of the year assessment (Fall NWEA MAP) given to students in September 2019 and compared with average Reading and Math RIT scores compiled from the middle of the year assessment (Winter NWEA MAP) data given to students in late January 2020 in order to measure overall student growth.

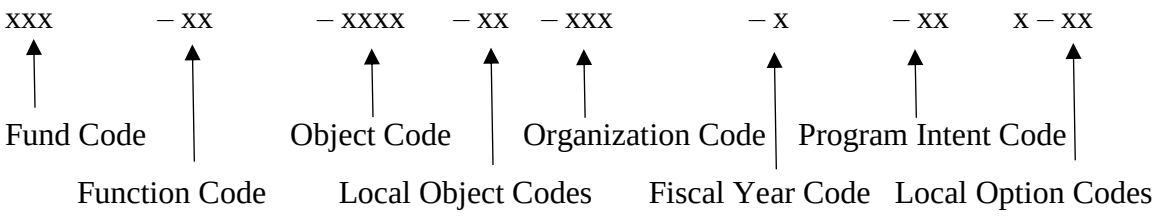
Fiscal Implications

DOCTORAL CAPSTONE PROJECT BUDGET

ACCOUNT	DESCRIPTION	BUDGET
420-11-6119-00-006-0-11-0-04	Teacher Salaries Campus A (for 9 District PD Days)	$21,428.55
420-11-6119-00-002-0-11-0-04	Teacher Salaries Campus B (for 9 District PD Days)	$19,047.60
420-13-6119-00-999-0-11-0-04	Instructional Coach Salaries (for PD Days)	$18,721.46
420-13-6291-00-999-0-11-0-04	Danielson Framework Training for Teachers	$4,000.00
420-23-6291-00-999-0-11-0-04	Danielson Framework Training for Administrators	$8,000.00
420-11-6219-00-006-0-11-0-04	NWEA MAP Software (3rd - 5th Grade Students Campus A)	$3,786.66
420-11-6219-00-002-0-11-0-04	NWEA MAP Software (3rd - 5th Grade Students Campus B)	$3300.30
420-41-6399-00-750-0-99-0-04	Professional Development Materials & Supplies	$1,680.00
TOTAL		**$79,964.57**

Budget Narrative & Indirect Costs

All budget codes represented within the table above follow criteria for the State of Texas charter school finance compliances. Each budget code was representative of the following details (Sampson, et. al., 2013):



Teachers from two elementary campuses, Campus A and Campus B, were the focus for the research, however, indirectly. Nine teachers from Campus A were included in the study, and eight teachers from Campus B for seventeen teachers. Salary averages were $50,000 for this group of teachers (HPS, 2018). District professional developments were implemented a total of nine days throughout the 2019 – 2020 school year. The teacher budgets were determined by the teacher daily rate of $264.55 per day (189 work days total in school year). This number was then multiplied by the number of teachers at Campus A and then Campus B, then multiplied again by the number of days of district professional development, which is nine. Resulting in the total budget for teacher salaries from Campus A and Campus B to be $40,476.15.

Instructional coaches implemented all of the district level professional developments. Therefore, the coach budget for salaries was determined the same way as was the budget for the teachers. However, the instructional coach salary was determined

to be $63,890.70, and the instructional coaches work a total of 215 days (HPS, 2018). Seven district instructional coaches provided the nine days of district professional development. There daily rate was determined to be $297.16. This amount was then multiplied by the number of coaches, and then by the number of days of professional development for a total amount of $18,721.46.

During district professional development, teachers and administrators were trained on the Danielson Framework. Danielson Framework for teachers provided services at a flat fee daily rate of $4,000.00. Teachers received one day of Danielson training and that is the basis for the teacher evaluation. Administrators also received Danielson Framework Training for Administrators to accurately implement the teacher evaluations. Administrators received two days of training from the Danielson group for a total of $8,000.00. The administrator training from the Danielson Group was a new form of professional development implemented this year for administrative staff. In previous school years, this same calibration training was conducted virtually using demonstration classroom videos in which the administrators were able to collect instructional evidence, assign the evidence to domains and components and finally assign a Level of Performance (Yasmin, 2019).

Student growth was determined by implementing the Northwest Evaluation Association's Measure of Academic Progress exam (NWEA MAP). Costs for this software for the total district was $40,000. For this research study, a total of 612 student NWEA MAP RIT score averages were the focus in order to see possible growth. The

total cost was divided by the total number of students within the district to get a cost per student. The cost per student was determined to be $11.58. Campus A represented a total of 327 students, for a total of $3,786.66. Campus B represented a total of 285 student, for a total of $3,300.30. The total cost of the NWEA MAP software for the focus student groups at the two campuses was determined to be $7086.96.

The overall total budget for this research study was $79,964.57. All expenses for this research study were indirect costs. All of the costs were necessary, but standard based upon previous years. However, the implementation of strategic and targeted instructional strategies and the data collection based upon those strategies were added to gauge the effectiveness of current professional development.

Methods of Data Collection

The data collected for this research study were provided by the district office of the West Texas charter school district. The instructional practices modeled, taught, and implemented by classroom teachers were recorded and monitored through a Word document data table (Appendix A). The data table included columns with a category labeled as *Observable Instructional Strategies* and valued as Yes (observed) and No (not observed). This data was collected using a paper and pencil method during walk-throughs and observations conducted by the researcher of this study. Teacher participant Consent Forms (Appendix B) were collected from all focal group teachers who agreed and signed off in order to take part in this research study in regards to receiving walk-

throughs, observations and provided consent to use his/her evaluation averages from the 2018 – 2019 and 2019 – 2020 school years.

An Excel spreadsheet and Google Sheets spreadsheet was used to document the Instructional Rounds data collection (Appendix C) to identify the problem of practice. A district Instructional Rounds team was chosen to conduct the process in alignment with the Harvard Instructional Rounds Model at the beginning of the 2019 – 2020 school year. Instructional Rounds data from April 2019 was used as baseline data for the August 2019 – 2020 professional development sessions. This assisted with the chosen instructional strategies implemented as well as the domains and components selected as the focal areas for this research study. Again, in early September 2019, the district Instructional Rounds process took place in order to obtain more current data for continued improvement in the area of instruction and student achievement. The analysis of instructional practices were based upon the instructional rounds and walk through data. This data was analyzed through discussions from the Excel spreadsheet and Google Sheets spreadsheet data. In addition, the *Observable Instructional Strategies* was used monthly with the use of percentages of observed techniques within each identified and focused classroom. It was decided by the researcher of this study that higher recorded percentages of observed instructional techniques during observations would show evidence of fidelity and regular practice of such instructional strategies.

Formal teacher evaluation scores were gathered, and an overall average was compiled in the Danielson domain(s) and component(s) which identified in correlation

with the district problem of practice. This data was kept in an Excel spreadsheet titled as *Teacher Evaluation Averages* (Appendix D) and analyzed at the end of each school semester, December and May. Student NWEA MAP RIT data was also kept in an Excel spreadsheet titled *Student NWEA MAP Averages* (Appendix E) and updated after each assessment administration. Instructional Review Board (IRB) approval can be viewed in Appendix F.

The data was compiled, averaged, and analyzed based upon the grade level focus and subject. The Instructional Rounds data was used to determine the district problem of practice. All data averages from the teacher evaluation, instructional practices percentage sheets, and student assessment averages were compared and analyzed for successful results. The data collected will be analyzed as a whole focus group comparison, as well as analyzed at each campus level. An increase in the mean score (teacher evaluations and NWEA MAP RIT) and a reduction in variability would show success in the action research.

Timeline

Baseline data from the 2018 – 2019 school year was used in regard to teacher evaluation performance. This data was an average of two components within the Danielson Framework for Teachers evaluation rubric. The two focus components used as baseline data and for the entirety of this research project were: 1) Component 1c: Setting Instructional Outcomes, and 2) Component 3c: Engaging Students in Learning. These two components were identified in alignment with the district problem of practice, as

previously mentioned. The timeline below provides a structured approach to the implementation of the study and data collection.

August 5 – August 9, 2019: Delivered professional development based on the district problem of practice from end of 2018 – 2019 school year

August 7, 2019: Day 1 of Danielson training for Administrators (Principals, Assistant Principals of Academics) on observational skills

August 26 – August 30, 2019: Historical data reviewed (2018-2019 Teacher Evaluation Score Averages, teacher retention rate and instructional rounds data)

August 26 – September 11, 2019: Gathered baseline data from Fall NWEA MAP RIT student averages, adjusted/updated current data on district problem of practice based upon Instructional Rounds data collection, collected data averages from teacher walk-throughs on observable instructional strategies

September 13, 2019: Delivered targeted professional development based on the district problem of practice

September 25, 2019: Day 2 of Danielson training for Administrators (Principals, Assistant Principals of Academics) on learning walks

September 16 – October 4, 2019: Gathered and reviewed data from instructional practices taught in the September 13 PD based upon teacher classroom walk-throughs on observable instructional strategies

October 11, 2019: Delivered targeted professional development based on the district problem of practice

October 15 – November 22, 2019: Gathered and reviewed data from instructional practices taught in the October 11 PD based upon teacher classroom walk-throughs on observable instructional strategies, and gather teacher evaluation score averages

January 6, 2020: Delivered targeted professional development based on the district problem of practice

January 8 – February 7, 2020: Gathered and reviewed data from instructional practices taught in the January 6 PD based upon teacher classroom walk-throughs on observable instructional strategies

January 13 – January 24, 2020: Gathered and reviewed Winter NWEA MAP RIT student averages

February 14, 2020: Delivered targeted professional development based on the district problem of practice

February 18 – March 13, 2020: Gathered and reviewed data from instructional practices taught in the February 14 PD based upon teacher classroom walk-throughs on observable instructional strategies

March 23 – May 17, 2020: Data from instructional practices taught throughout the 2019 - 2020 school year based upon teacher classroom walk-throughs on observable instructional strategies and teacher evaluation score averages were analyzed for results

Validity

Validity in action research has been criticized for its perception of being of lesser quality because this research it often conducted by educators and not by researchers (Mertler, 2019). However, this is not necessarily the case as long as the researcher ensures that the research is of sound practice (Mertler, 2019). While there are both pros and cons involving the validity of action research, controls must always be taken to ensure the validity, or rigor of the results. These controls include the quality of the study, the accuracy of data collection, and the credibility of the action research and its findings (Mertler, 2019).

As previously mentioned, this action research model is based on participatory action research (PAR) which is considered as emancipatory (Hendricks, 2017). Even with the use of the PAR model, all research has limitations. The major limitations of this study consisted of how teachers applied the instructional practices and training in the classroom, the perception of the observation, and data collection of the administration on teacher evaluations. Other limitations were specific to the individual campuses and pertained to student testing environments.

Despite the research's limitations, controls were used to ensure the validity of the research study results. The research parameters were relatively comparable at each of the focus campuses (see Tables 1 and 2). Although there were some differences, there were enough common attributes (same assessment, same evaluation model, same grade levels

and subjects). This research study also analyzed data on the individual school level and as a whole in order to identify any patterns or potential outliers.

While Campus A was a K – 5 campus and Campus B was a K – 12 campus, only teachers and students within grades 3 – 5, Reading and Math were the focus of the research. Both campuses had similar student demographics as well. Teachers at both Campus A and Campus B were trained on the implementation of the instructional practices and strategies using the same evaluation system by their administration. All administrative staff at Campus A and Campus B received the same observation and data collection training from the Danielson Group to calibrate for teacher effectiveness when conducting observations. This also assisted in maintaining fidelity to the evaluation rubric. Lastly, a district testing coordinator oversaw all testing schedules and environments to ensure commonality for students and teachers during testing.

Summary

The quantitative research approach described in this chapter was selected for this study because of the limited number of variables. Also, this research approach identified the relationship between the implementation of effective professional development, teacher evaluation scores, and student achievement. Chapter 4 will explain the data analysis and interpretation of the information based on the results.

CHAPTER 4

RESULTS

As stated in Chapter 1, this research study examined the affects that effective professional development and teacher evaluations have on student success at two different elementary campuses located in a West Texas charter school district. Chapter 4 will begin with a description students' demographic data from the two campuses included in this study and descriptive statistics of the teachers from the two schools as well. The results will be organized in terms of the four research questions and address the significant statistical conclusions concerning each question. A summary of key findings to each of the research questions and the collected data will also be discussed within this chapter.

Research Questions

The research questions for this research study were:

1. What effect does the implementation of targeted professional development, based on Instructional Rounds Problems of Practice, have on teacher evaluation scores?

2. What effect does the implementation of targeted professional development planning, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

3. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on teacher effectiveness?

4. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

Demographic Data

The West Texas charter school district within this research study contains five campuses; two K – 8 campuses, one K – 5 campus, one K – 12 campus, and one 6 – 12 campus. In total, the five campuses have an enrollment of 3,566 students. Two campuses, Campus A and Campus B, agreed to participate in this research study with participation from the 3rd through 5th grade Math and Reading teachers. Campus A is a K – 5 grade campus and Campus B is a K – 12 campus. These campuses and specific grade levels represented a total of 612 students; 327 students from Campus A and 285 students from Campus B. 17 teachers were included in this research study; nine teachers from Campus A and eight teachers from Campus B.

Teacher and Student Demographics

This section will provide an overview of the third, fourth and fifth grade NWEA MAP assessment demographic data of the students within this research study. The student data within this section includes the number of students who took the NWEA

MAP assessment at each grade level, as well as a breakdown of gender, economically disadvantaged percentages, ethnicity, and special population identification. This section will also include teacher demographics based on the teacher participation for this research study. The teacher demographics includes the number of teachers at each campus by the subject area represented and the number of years of teaching experience and education level attained. The teachers within the focus group for this study taught either Reading or Math during the 2018 – 2019 and 2019 – 2020 school years. Baseline data from teacher evaluations was used from the 2018 – 2019 school year.

The two schools included in this research study are high-achieving urban elementary campuses located El Paso, Texas near the United States and Mexico border. The elementary school campuses are a part of the West Texas statewide charter school organization with 59 total campuses. The two focus campuses are a part of a cluster, or area, within the state-wide charter organization that accounts for five campuses within the entire school system. While the West Texas cluster has been titled an "A-Rated" district by the State Board of Education for three consecutive school years based on scores from state assessment data, the campuses have a high population of students categorized as Economically Disadvantage. In addition, over 80% of the clusters population are of Hispanic ethnicity, with approximately 25% of the student population categorized as English Language Learner (ELL) students.

Table 3 displays grades 3-5 student NWEA MAP assessment data at Campus A from September 2019 and February 2020. 109 students are enrolled in grades third

through fifth, out of a total of 327 students. In this study, Campus A has 45% of its students identified as ELL, while the Economically Disadvantaged student population is at 74%, and approximately 1% of the school children represented are categorized as Special Education students.

Table 3

Student Demographic Data Campus A – NWEA MAP Assessment: September 2019 and February 2020

Campus A	Enrollment	Female	Male	Black	Asian	Hispanic	Multi-Racial	White	ELL	Special Education	Econ. Dis.
3rd Grade	109	46	63	1	0	103	2	3	52	9	88
4th Grade	109	55	54	0	0	105	0	4	50	14	80
5th Grade	109	56	53	0	1	106	1	1	46	11	75

Table 4 displays grades 3 – 5 student NWEA MAP assessment data at Campus B from September 2019 and February 2020. 285 students are enrolled in grades third through fifth at Campus B. In this study, Campus B has 25% of its students identified as ELL, while the Economically Disadvantaged student population is at 72%, and approximately 9.8% of its school children represented are categorized as Special Education students.

Table 4

Student Demographic Data Campus B – NWEA MAP Assessment: September 2019 and February 2020

Campus B	Enrollment	Female	Male	Black	Asian	Hispanic	Multi-Racial	White	ELL	Special Education	Econ. Dis.
3rd Grade	78	32	46	3	1	65	2	7	19	12	60
4th Grade	101	52	49	5	1	82	3	10	23	6	69
5th Grade	106	53	53	2	0	87	4	13	30	10	75

Table 5 displays the years of teaching experience for educators assigned to each grade level at Campus A and Campus B. Grades 3 – 5 at both Campus A and Campus B

are departmentalized for scheduling purposes. Departmentalized for the sake of this study, refers to separate teachers for each content subject taught. This study will examine educators teaching grades 3 -5 Reading and Math at both campuses. 66.7% of Campus A teachers having taught between 5 – 10 years and 11% have taught for more than 15 years. In addition, 88.9% of Campus A's teachers predominantly held a bachelor's degrees, while 50% of teachers at Campus B held bachelor's degree and 50% held a master's degree.. 50% of Campus B's teachers having taught between 3 – 5 years and 11% having taught between 11 – 15 years.

Table 5

Teacher Demographics: Campus A and Campus B

Campus	Total Number of Teachers	Years of Experience					Education		
		0 – 3	3 – 5	5 – 10	11 – 15	16 +	Bachelor's	Master's	PhD/EdD
A	9	2	0	6	0	1	8	1	0
B	8	2	4	1	1	0	4	4	0

Table 6 shows the subject taught by teachers that participated in the research study. Campus A teachers represented 44.4% of educators within the focus group that taught Reading and 55.6% of teachers teaching Math. Campus B educators accounted for 62.5% of teachers within the focus groups that taught Reading and 37.5% of teachers teaching Math. Student placement for all pupils at both Campus A and Campus B was conducted by a scheduling system using a heterogeneous distribution. Class sizes for the campuses and all classrooms do not exceed 28 students. Just over 40% of the teachers within this study have between 5 and 10 years of teaching experiences. While

approximately 30% of the teachers in the focus group have earned advanced degrees past the bachelors.

Table 6

Teacher Subject Taught

Campus	Reading	Math
A	4	5
B	5	3

Teacher Evaluation Data

As discussed in Chapter 3, both Campus A and Campus B utilized a teacher evaluation system that rated each teacher on a four-point scale using a teacher effectiveness rubric:

- 1 – Unsatisfactory
- 2 – Basic
- 3 – Proficient
- 4 – Distinguished

The Framework for Teaching Evaluation Instrument (2013) was used as the guide to score teachers. Both Campus A and Campus B used the following Domains and Components when conducting both walk-throughs and formal observations of teachers within this research study:

- **Domain 1: Planning and Preparation**

  -Component 1c: Setting Instructional Outcomes

- **Domain 2: The Classroom Environment**

  -Component 2c: Managing Classroom Procedures

- **Domain 3: Instruction**

  -Component 3b: Using Questioning and Discussion Techniques

  -Component 3c: Engaging Students in Learning

  -Component 3d: Providing Feedback to Students (Danielson, 2013)

For the purpose of this research study, the following Domains and Components were utilized in data collection based upon the problems of practice identified:

- **Domain 1: Planning and Preparation**

  -Component 1c: Setting Instructional Outcomes

- **Domain 3: Instruction**

  -Component 3c: Engaging Students in Learning (Danielson, 2013)

Table 7 displays the baseline teacher evaluation data collected from the Domains and Components within this research study from the end of 2018 – 2019 school year. Table A shows that the baseline teacher evaluation score from the focus Domains and Components at 2.95 for Campus A, while Campus B had a slightly lower average teacher evaluation score of 2.85. This baseline data was used as a starting point in order to compare any changes in averages throughout the 2019 – 2020 school year in teacher evaluation scores.

Table 7

2018 - 2019 Teacher Evaluation Baseline Data

Campus	Baseline Average
Campus A	2.95
Campus B	2.85

Instructional Rounds Data

For this research study, overall averages on teacher evaluations were used to see teacher growth in the domains and components related to the district problems of practice. Table 8 displays the data collected through the West Texas (WT) District Instructional Rounds process in September 2019 to establish a baseline for the district problem of practice. This data was used to create training workshops for teachers during their professional development days throughout the 2019 – 2020 school year. The WT District Instructional Rounds data was collected from both Campus A and Campus B, grades 3 – 5, in order to identify the district problems of practice during the Instructional Rounds process, which was also discussed in Chapter 3.

After following the protocol for the Instructional Rounds process, which included discussions amongst the Instructional Rounds team, the district problems of practice were identified as Planning and Preparation and Student Engagement. These problems of practice were then identified to fall under the Domains and Components:

- **Domain 1: Planning and Preparation**

-Component 1c: Setting Instructional Outcomes

- **Domain 3: Instruction**

-Component 3c: Engaging Students in Learning (Danielson, 2013)

Tables 8 and 9 display district Instructional Rounds data collected by the WT District Instructional Rounds team in September 2019, used as baseline data, and January 2020. The Instructional Rounds process took place after the implementation of the August 2019 professional development. The data collected during the September 2019 Instructional Rounds identified the problems of practice areas of weakness as:

- **Domain 1: Planning and Preparation**

-Component 1c: Setting Instructional Outcomes

- **Domain 3: Instruction**

-Component 3c: Engaging Students in Learning (Danielson, 2013)

Based on discussions from the Instructional Rounds team members, it was determined that teachers showed an area of weakness in student questioning, as seen in Table 8. While some higher-level questions were begin asked, 74% of the questions asked were categorized as lower-level questions. The root cause for this was a lack in teacher planning and preparation to foresee probable student responses in order to develop higher-level questions or scaffolded questions. In addition, only 38% of students observed during the Instructional Rounds process were identified as engaged at a higher level of learning, and 58% of students observed were considered at an engagement level

of ritual compliant, meaning they were only doing what they were being told because they had to. Based on team data discussions, this resulted from a lack of planning and preparing engaging activities for student learning. Thus, the two problems of practice were determined to fall under the realms of the above referenced Danielson (2013) domains and components.

Table 9 displays the mid-year Instructional Rounds data collected from the two focus campuses in January 2020. Higher-level questions were being asked more frequently by the classroom teachers, and 25% of questions asked were categorized as lower-level questions. 68% of students observed during the January 2020 Instructional Rounds were at a higher level of engagement than those identified as being ritual compliant.

Table 8

District Instructional Rounds Data – September 2019

	Combined Total	
# of Classes Visited	19	
Teacher in Power Zone		**%**
Sitting at Desk	2	11%
Standing	4	21%
Circulating	8	42%
Small Group	9	47%
Student Engagement		
# of Students	482	
# Engaged	185	
Percent Engaged	38%	
Level of Engagement		**%**
Engagement	6	32%
Strategic Compliance	5	26%
Ritual Compliance	11	58%
Retreatism	0	0%
Rebellion	0	0%
Rigor of Instruction		**%**
Higher Level	1	5%
Mid Level	10	53%
Lower Level	8	42%
Not Applicable	2	11%
Rigor of Activity		**%**
Higher Level	3	16%
Mid Level	9	47%
Lower Level	9	47%
Not Applicable	1	5%
Teacher Questioning		
# of Questions Asked	88	
# of Open Ended Questions Asked	27	
Percent of Open Ended Questions	31%	
Student Questioning		
# of Questions Asked	13	
Level of Questioning		**%**
Higher Level	2	11%
Mid Level	3	16%
Lower Level	10	53%
Not Applicable	4	21%

Table 9

District Instructional Rounds Data – January 2020

	Combined Total	
# of Classes Visited	24	
Teacher in Power Zone		**%**
Sitting at Desk	0	0%
Standing	1	4%
Circulating	7	29%
Small Group	16	67%
Student Engagement		
# of Students	482	
# Engaged	376	
Percent Engaged	68%	
Level of Engagement		**%**
Engagement	7	37%
Strategic Compliance	12	63%
Ritual Compliance	5	26%
Retreatism	0	8%
Rebellion	0	0%
Rigor of Instruction		**%**
Higher Level	2	11%
Mid Level	13	68%
Lower Level	9	38%
Not Applicable	0	0%
Rigor of Activity		**%**
Higher Level	3	16%
Mid Level	12	50%
Lower Level	9	47%
Not Applicable	0	0%
Teacher Questioning		
# of Questions Asked	100	
# of Open Ended Questions Asked	66	
Percent of Open Ended Questions	66%	
Student Questioning		
# of Questions Asked	25	
Level of Questioning		**%**
Higher Level	7	37%
Mid Level	13	68%
Lower Level	4	21%
Not Applicable	0	4%

Targeted Instructional Strategies Data

Professional development days were implemented for the third -fifth grade Math and Reading teachers within this study at the two focus elementary campuses, Campus A and Campus B, within the HPS West Texas charter school district. Six targeted instructional strategies focusing on the identified teachers and problems of practice were implemented during the district professional development days throughout the school year beginning in August 2019 and ending in February 2020. These targeted instructional strategies previously discussed in Chapter 3 included; Begin with the End, Double Plan, Plan for Error, Turn and Talk, Everybody Writes, and Exit Ticket. These targeted instructional strategies were chosen in alignment with the following Danielson domains and components identified as the problems of practice within the district:

- **Domain 1: Planning and Preparation**

  -Component 1c: Setting Instructional Outcomes

- **Domain 3: Instruction**

  -Component 3c: Engaging Students in Learning (Danielson, 2013)

Follow-through of the implementation for the targeted instructional strategies was on-going and data was collected through classroom observational data sheets. Figure 1 displays data collected from walk-throughs and observations of the classroom teachers identified within this study by month and percentage of overall visible usage of the targeted instructional strategies. Campus A showed a higher percentage in the

implementation of the instructional strategies from September 2019 to March 2020 when the data was collected. . September represented the lowest implementation percentage of instructional strategies for both Campus A and Campus B, while February showed the highest percentage for the implementation of these strategies. Over the research period, both Campus A and Campus B demonstrated an increase in the percentage of implementation during September, October, and November, before decreasing the application of instructional strategies in December. Campus A was consistent in the execution of these strategies during January, February and March. Campus A also displays a slightly higher overall average evaluation score in the domains and components targeted.

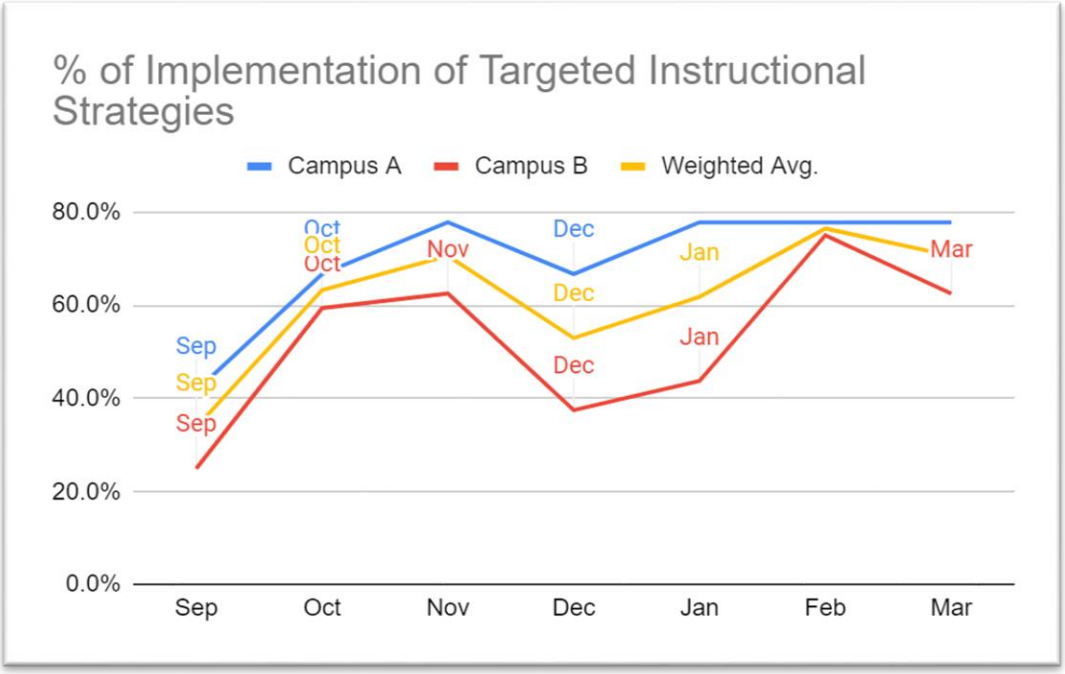


Figure 1 – Percent of Implementation of Targeted Instructional Strategies – This figure displays month-by-month data collected from both campuses of the percent of implementation of the targeted instructional strategies.

Table 10 and Figure 2 display the same data points. The data represented below was collected from walk-throughs and observations of classroom teachers identified within this research by month and percentage of overall visible usage. In addition, Table 10 and Figure 2 also show the overall average evaluation scores from teacher observations by campus. These teacher evaluation scores were based on two formal teacher observations conducted within each of the two semesters during the 2019 – 2020 school year. Due to the global pandemic of 2020, the teacher observations conducted during the second semester were completed within a virtual live classroom. All teacher observation and evaluation data collected during both semesters focused upon the targeted Domains and Components previously stated.

As previously viewed in Table 7, Campus A had a baseline evaluation score average at the end of the 2018 – 2019 school year of 2.95. Table 10 and Figure 2 show an increase in the overall evaluation score average, 3.063, for the 2019 – 2020 school year. Campus B had a baseline evaluation score average of 2.85 and displayed a slight increase to 2.938 for the 2019 – 2020 school year.

Table 10

Percent of Implementation of Targeted Instructional Strategies vs. Average Evaluation Scores – September 2019 – March 2020

Campus	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Eval. Score Avg. 1C & 3C
Campus A	41.7%	66.7%	77.8%	66.7%	77.8%	77.8%	77.8%	3.063
Campus B	25.0%	59.4%	62.5%	37.5%	43.8%	75.0%	62.5%	2.938
Weighted Avg.	33.8%	63.3%	70.6%	53.0%	61.8%	76.5%	70.6%	3.001

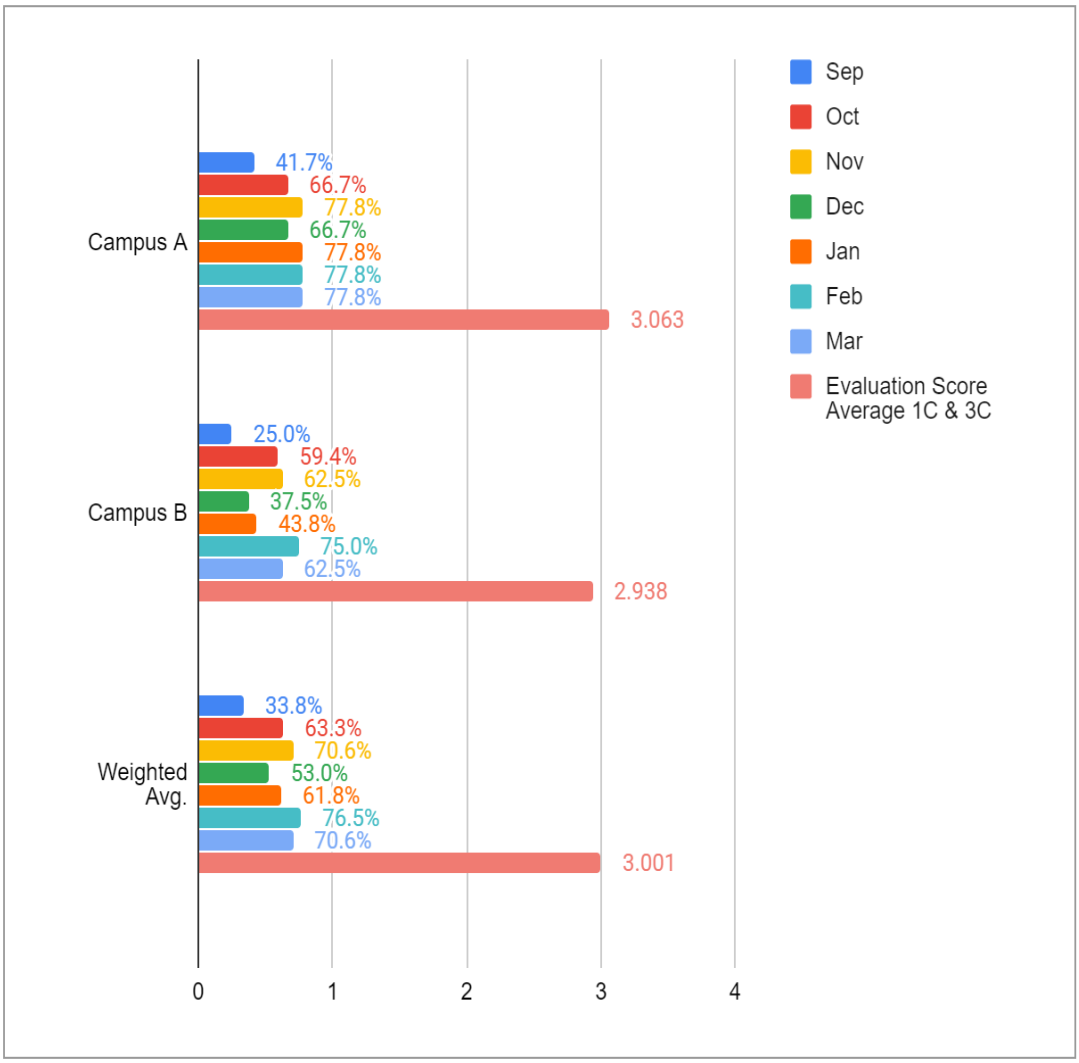


Figure 2- Percent of Implementation of Targeted Instructional Strategies vs. Average Evaluation Scores – September 2019 – March 2020 – This figure displays the percent of implementation of targeted instructional strategies each month within the study and the comparison of the average score on teacher evaluations at the conclusion of the study.

NWEA MAP Data

NWEA MAP RIT, or Rasch UnIT, is a measurement scale that assists in understanding the NWEA MAP assessment scores and relates directly to the grade level scale in each subject area (NWEA, 2015). NWEA MAP RIT data averages from the beginning of the year NWEA MAP assessment given to students in August/September 2019 were collected, analyzed, and compared with the Mid-Year NWEA MAP assessment given to the students in January 2020. These averages included Reading and Math NWEA MAP RIT data from the focus 3rd - 5th grade level groups at both Campus A and Campus B. The charts below (NWEA, 2015) display the NWEA MAP RIT Student Status Norms for both Reading and Math RIT means from assessments implemented during the academic year. For this research study, only the beginning of the year and middle of the year NWEA MAP assessments were implemented. Both Campus A and Campus B used these charts to identify a starting grade level of skills mastery for individual students to show the growth of students throughout the school year. These charts helped identify students who needed specific learning plans as well as show how the student has progressed throughout the year. This assists the campuses in evaluating and modifying the school intervention plan.

2015 READING Student Status Norms						
	Begin-Year		Mid-Year		End-Year	
Grade	Mean	SD	Mean	SD	Mean	SD
K	141.0	13.54	151.3	12.73	158.1	12.85
1	160.7	13.08	171.5	13.54	177.5	14.54
2	174.7	15.52	184.2	14.98	188.7	15.21
3	188.3	15.85	195.6	15.14	198.6	15.10
4	198.2	15.53	203.6	14.96	205.9	14.92
5	205.7	15.13	209.8	14.65	211.8	14.72
6	211.0	14.94	214.2	14.53	215.8	14.66
7	214.4	15.31	216.9	14.98	218.2	15.14
8	217.2	15.72	219.1	15.37	220.1	15.73
9	220.2	15.68	221.3	15.54	221.9	16.21
10	220.4	16.85	221.0	16.70	221.2	17.48
11	222.6	16.75	222.7	16.53	222.3	17.68

2015 MATHEMATICS Student Status Norms						
	Begin-Year		Mid-Year		End-Year	
Grade	Mean	SD	Mean	SD	Mean	SD
K	140.0	15.06	151.5	13.95	159.1	13.69
1	162.4	12.87	173.8	12.96	180.8	13.63
2	176.9	13.22	186.4	13.11	192.1	13.54
3	190.4	13.10	198.2	13.29	203.4	13.81
4	201.9	13.76	208.7	14.27	213.5	14.97
5	211.4	14.68	217.2	15.33	221.4	16.18
6	217.6	15.53	222.1	16.00	225.3	16.71
7	222.6	16.59	226.1	17.07	228.6	17.72
8	226.3	17.85	229.1	18.31	230.9	19.11
9	230.3	18.13	232.2	18.62	233.4	19.52
10	230.1	19.60	231.5	20.01	232.4	20.96
11	233.3	19.95	234.4	20.18	235.0	21.30

NWEA MAP Reading Assessment Data

Table 11 and Figure 3 display the same data points based upon 3rd grade Fall to Winter semesters Mean RIT scores in accordance with the NWEA MAP Reading assessment data. The data denoted that Teacher 1A, Teacher 1B, and the WT District shows percent changes from Fall to Winter that were above the National Norm RIT, while Teacher 2B showed a percent change from Fall to Winter that was below the National Norm RIT. Both Campus A and Campus B as well as the WT District met or exceeded the National Fall and Winter Mean RIT scores.

Table 11

3rd Grade Reading NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	3	Norm RIT	187.1	194.9	7.8
Campus A	3	Teacher 1A	191.5	199.9	8.4
Campus B	3	Teacher 1B	188.3	196.7	8.4
Campus B	3	Teacher 2B	191.4	197.0	5.6
District	3	WT District	187.7	196.4	8.7

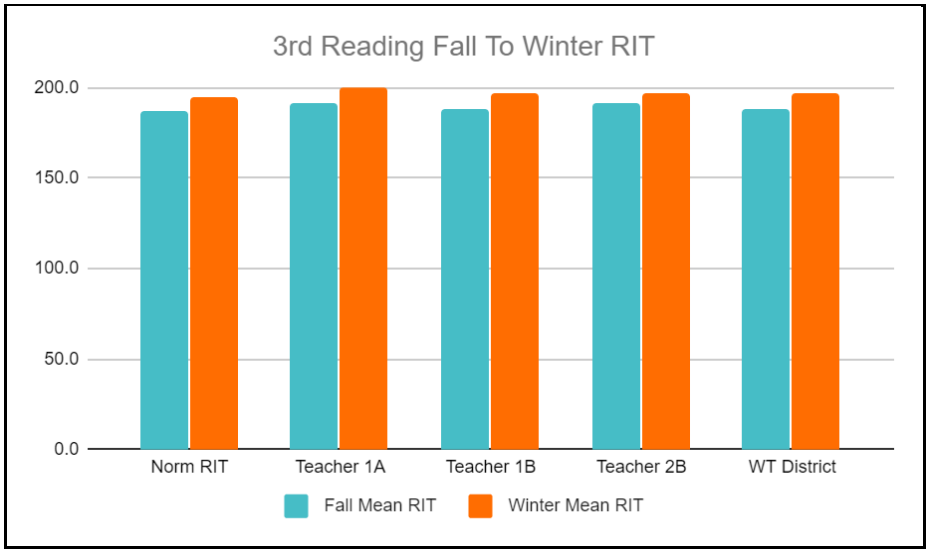


Figure 3 – 3rd Grade Reading NWEA MAP Fall to Winter RIT – This figure displays the 3rd grade Reading RIT scores by teacher from the Fall to Winter assessments.

Table 12 and Figure 4 display the same data points based upon 4th grade Fall to Winter Mean RIT scores in accordance to the NWEA MAP Reading assessment. This data represents Teacher 2A, Teacher 3B, and the WT District percent changes from Fall to Winter that met or were above the National Norm Mean RIT, while Teacher 4B was below the National Norm Mean RIT. Campus A and Campus B exceeded the National Fall and Winter Mean RIT score. The WT District met the National Fall Mean RIT and scored just above the National Winter Mean RIT.

Table 12

4th Grade Reading NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	4	Norm RIT	197.3	203.1	5.8
Campus A	4	Teacher 2A	203.0	209.1	6.1
Campus B	4	Teacher 3B	204.2	210.0	5.8
Campus B	4	Teacher 4B	199.5	203.3	3.8
District	4	WT District	197.3	203.5	6.2

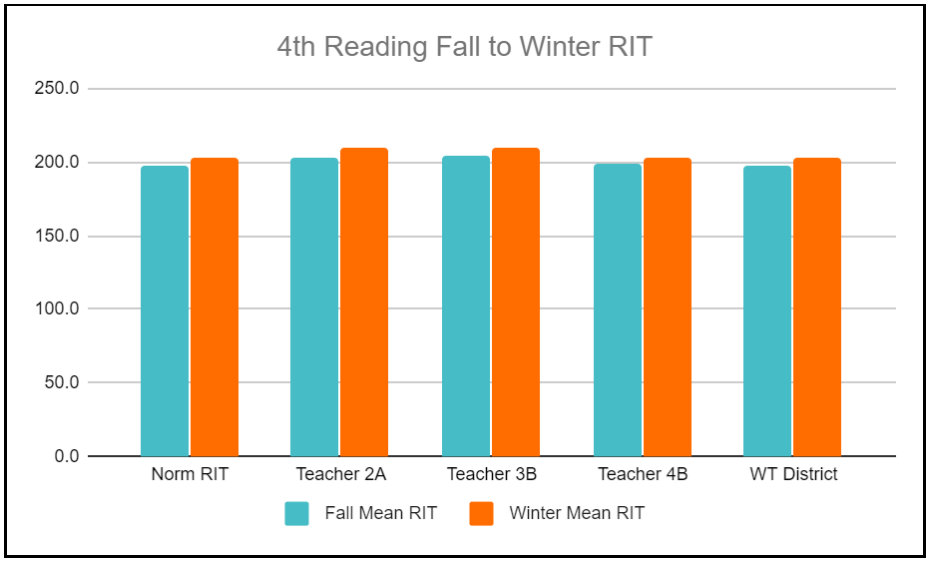


Figure 4 – 4th Grade Reading NWEA MAP Fall to Winter RIT – This figure displays the 4th grade Reading RIT scores by teacher from the Fall to Winter assessments.

Table 13 and Figure 5 display the same data points based upon 5th grade Fall to Winter Mean RIT scores in accordance to the NWEA MAP Reading assessment data. Campus A and Campus B teachers, as well as the WT District exceeded the National Norm Mean RIT for both Fall and Winter. Campus A and the WT District exceeded the overall change in National Norm and Mean RIT from Fall to Winter, while Campus B fell short with a 2.6 change in Norm and Mean RIT. Campus B had a higher Fall and

Winter Mean RIT than both the WT District and the National Norm Mean RIT scores. In addition, Teacher 3A, Teacher 4A, and Teacher 5B exceeded the National Norm Mean RIT and the WT District Norm Mean RIT for both Fall and Winter.

Table 13

5th Grade Reading NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	5	Norm RIT	205.0	209.4	4.4
Campus A	5	Teacher 3A	209.2	216.7	7.6
Campus A	5	Teacher 4A	209.5	215.3	5.8
Campus B	5	Teacher 5B	214.0	216.5	2.6
District	5	WT District	207.5	213.1	5.6

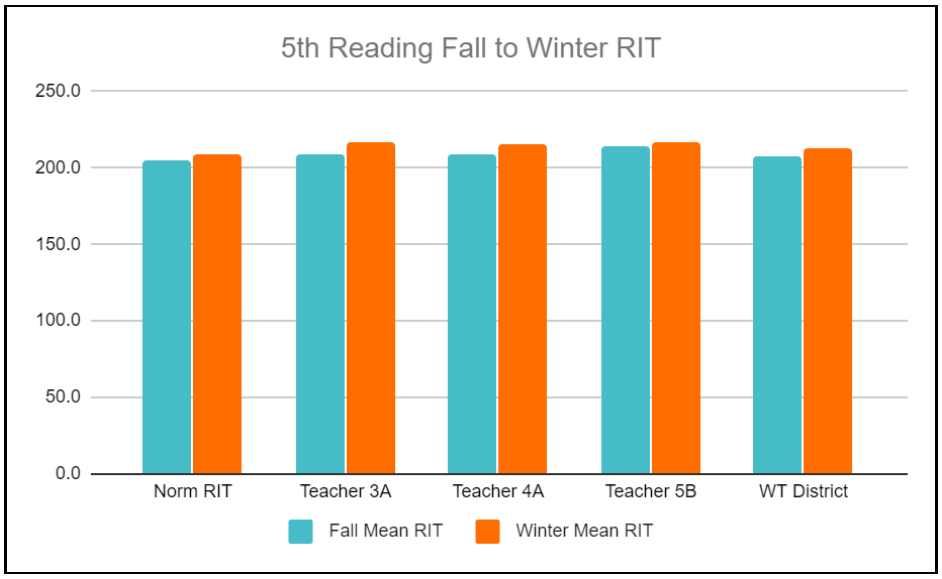


Figure 5 – 5th Grade Reading NWEA MAP Fall to Winter RIT – This figure displays the 5th grade Reading RIT scores by teacher from the Fall to Winter assessments.

Table 14 and Figure 6 display the same data points based upon the WT District and 3rd -5th grade Fall to Winter percentages of students who were above the National

Mean RIT in accordance to the NWEA MAP Reading assessment. Based on the data tables, two out of four teachers from Campus A showed a positive change in the percent of students who were above the National Norm RIT from Fall to Winter and the other two teachers at Campus A showed a negative change in percent of students who were above the National Norm RIT from Fall to Winter. The data for Campus B displays that three out of five teachers showed a positive change in the percent of students who were above the National RIT from Fall to Winter. While one of the five teachers remained the same in the percent of students who were above the National Norm RIT. The data also showed that one of the five teachers from Campus B showed a negative change in percent of students who were above the National Norm RIT from Fall to Winter. Overall, the WT District showed an increase of 1% of students were above the National Norm RIT from Fall to Winter.

Table 14

3rd - 5th Grade Reading NWEA MAP % of Students above Norm RIT Fall to Winter

Campus	Grade	Teacher	Fall National Norm RIT	Fall % of Students above Norm RIT	Winter National Norm RIT	Winter % of Students above Norm RIT	Changes in Student Growth
Campus A	3	Teacher 1A	187.1	56%	194.9	64%	8%
Campus B	3	Teacher 1B	187.1	58%	194.9	58%	0%
Campus B	3	Teacher 2B	187.1	56%	194.9	60%	4%
Campus A	4	Teacher 2A	197.3	76%	203.1	68%	-8%
Campus B	4	Teacher 3B	197.3	73%	203.1	74%	2%
Campus B	4	Teacher 4B	197.3	57%	203.1	58%	1%
Campus A	5	Teacher 3A	205.0	77%	209.4	65%	-12%
Campus A	5	Teacher 4A	205.0	66%	209.4	69%	3%
Campus B	5	Teacher 5B	205.0	78%	209.4	71%	-8%
District	3,4,5	WT District		59%		60%	1%

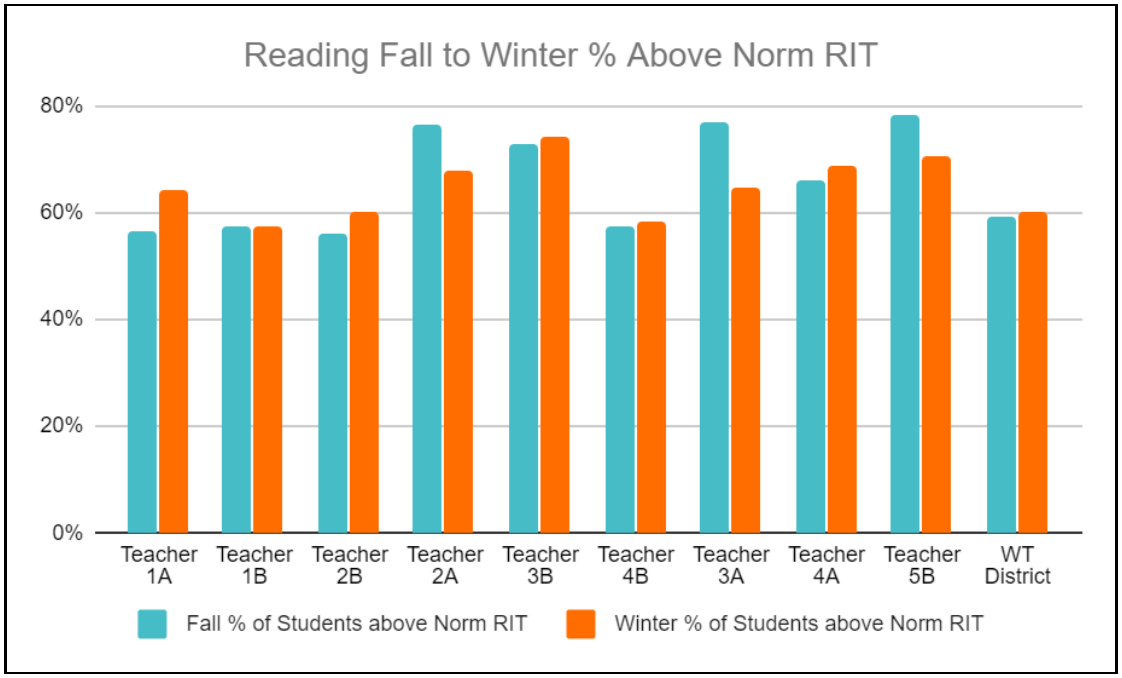


Figure 6 – 3rd - 5th Grade Reading NWEA MAP % of Students above Norm RIT Fall to Winter– This figure displays the 3rd – 5th grade Reading RIT scores by teacher from the Fall to Winter assessments of those students who were above the Norm RIT score.

NWEA MAP Math Assessment Data

Table 15 and Figure 7 display the same data points based upon 3rd grade Fall to Winter Mean RIT scores in accordance to the NWEA MAP Math assessment. This data showed that Campus A scored above the Fall and Winter Norm RIT and had the highest increase in change at 10.5 points from Fall to Winter on the NWEA MAP Math assessment. Campus B scored just below the Norm Mean RIT during both the Fall and Winter implementation. The WT District was just below the NWEA MAP Math Norm RIT during the Fall assessment but scored above the Norm Mean RIT during the Winter

assessment. Campus A, Campus B and the WT District exceeded the National change in Mean RIT from Fall to Winter on the NWEA MAP assessments.

Table 15

3rd Grade Math NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	3	Norm RIT	189.4	197.3	7.9
Campus A	3	Teacher 5A	191.2	201.8	10.5
Campus B	3	Teacher 6B	187.3	196.3	9.0
District	3	WT District	188.8	198.8	10.0

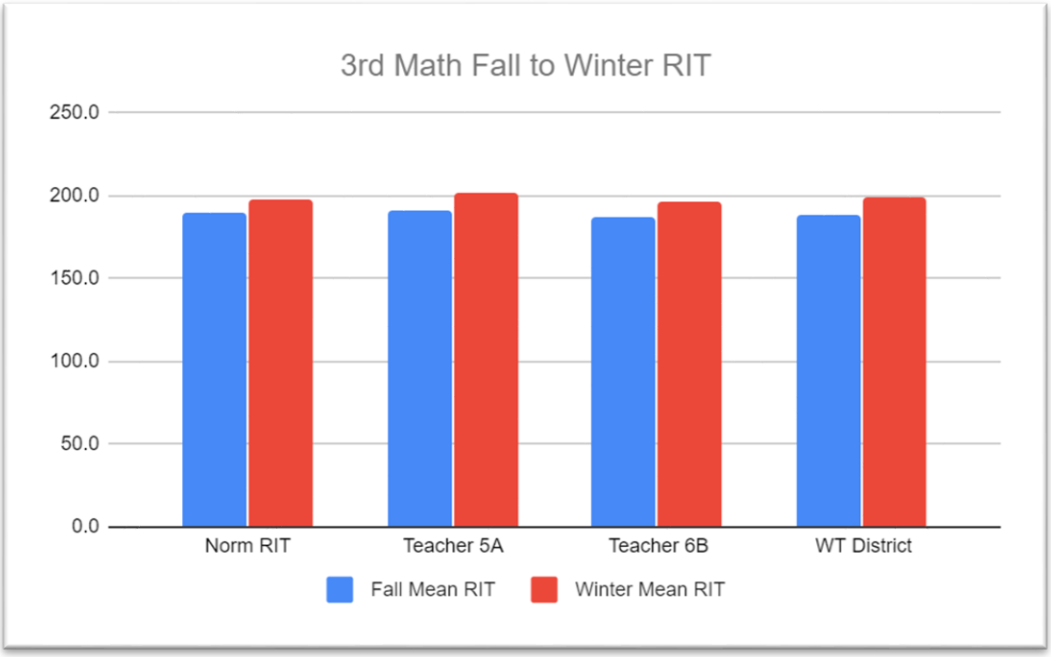


Figure 7 – 3rd Grade Math NWEA MAP Fall to Winter RIT – This figure displays the 3rd grade Math RIT scores by teacher from the Fall to Winter assessments.

Table 16 and Figure 8 display the same data points based upon 4th grade Fall to Winter Mean RIT scores in accordance to the NWEA MAP Math assessment. This data

displayed Campus A, Campus B and the WT District exceeded the Norm Mean RIT during the Fall administration of the NWEA MAP assessment. Both Campus A and Campus B exceeded the Norm Mean RIT during the Winter administration of the NWEA MAP assessment, while the WT District was just below the Norm Mean RIT for Winter. Teacher 7A showed the greatest change from Fall to Winter in RIT scores, however this teacher was still below the National Norm RIT average change from Fall to Winter. Campus A, Campus B and the WT District showed changes that were below the Norm RIT change from Fall to Winter.

Table 16

4th Grade Math NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	4	Norm RIT	201.1	207.9	6.8
Campus A	4	Teacher 6A	204.7	210.0	5.4
Campus A	4	Teacher 7A	206.0	211.8	5.8
Campus B	4	Teacher 7B	203.2	208.0	4.8
District	4	WT District	201.5	207.4	5.9

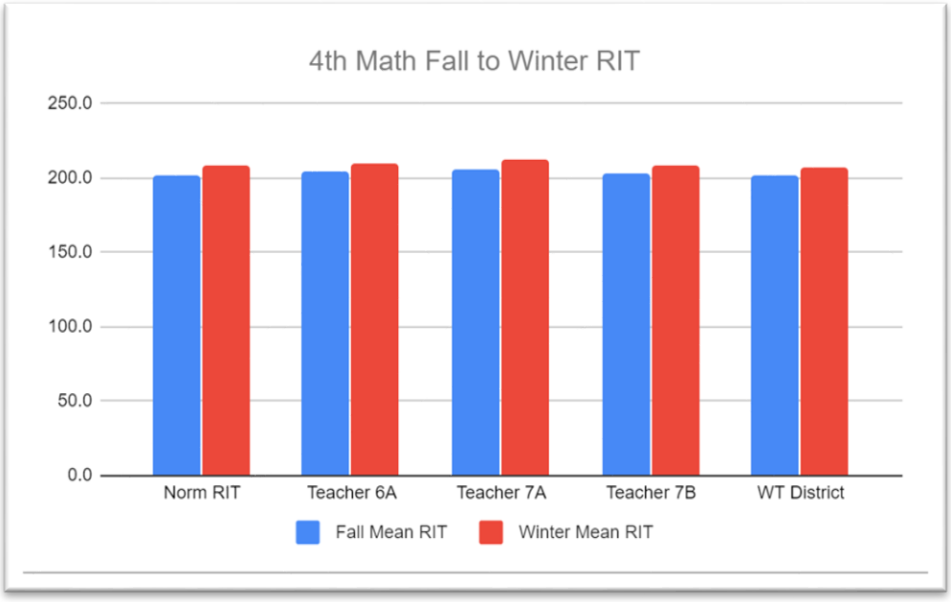


Figure 8 – 4th Grade Math NWEA MAP Fall to Winter RIT – This figure displays the 4th grade Math RIT scores by teacher from the Fall to Winter assessments.

Table 17 and Figure 9 display the same data points based upon 5th grade Fall to Winter Mean RIT scores in accordance to the NWEA MAP Math assessment. The data displayed shows that Campus A, Campus B, and the WT District scored above the National Norm RIT for both Fall and Winter. Also, both campuses and the WT District met or exceeded the National Norm RIT change from Fall to Winter. Teacher 8A and Teacher 9A showed the greatest change in RIT scores from Fall to Winter.

Table 17

5th Grade Math NWEA MAP Fall to Winter RIT

Campus	Grade	Teacher	Fall Mean RIT	Winter Mean RIT	Changes Fall to Winter
National	5	Norm RIT	210.7	216.5	5.8
Campus A	5	Teacher 8A	213.9	221.0	7.1
Campus A	5	Teacher 9A	213.6	220.3	6.7
Campus B	5	Teacher 8B	212.8	218.6	5.8
District	5	WT District	211.1	217.4	6.3

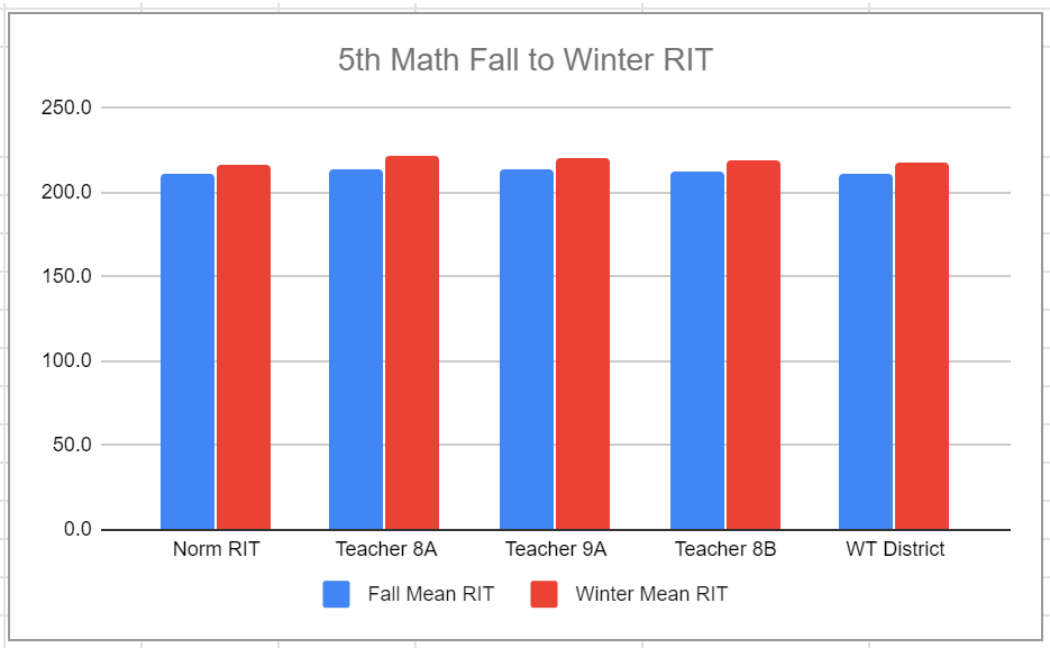


Figure 9 – 5th Grade Math NWEA MAP Fall to Winter RIT – This figure displays the 5th grade Math RIT scores by teacher from the Fall to Winter assessments.

Table 18 and Figure 10 display the same data points based upon the WT District and 3rd through 5th grade Fall to Winter percentages of students who were above the National Mean RIT in accordance to the NWEA MAP Math assessment. This data displayed that four of the eight teachers within the focus group showed negative changes in student

growth in NWEA MAP RIT scores from Fall to Winter. Two of the five teachers from Campus A showed a negative change in student growth from Fall to Winter, while two of three teachers from Campus B showed a negative change in student growth in the same period. Teacher 5A showed the greatest change in student growth of all the Math teachers within the focus group at 21% growth. While Teacher 6B showed a 9% increase in change in student growth, that teacher also had the lowest percentage of students above Norm RIT for both the Fall and Winter NWEA MAP assessment. The WT District displayed an overall change of 1% in student growth from Fall to Winter.

Table 18

3rd - 5th Grade Math NWEA MAP % of Students above Norm RIT Fall to Winter

Campus	Grade	Teacher	Fall National Norm RIT	Fall % of Students above Norm RIT	Winter National Norm RIT	Winter % of Students above Norm RIT	Changes in Student Growth
Campus A	3	Teacher 5A	189.4	51%	197.3	72%	21%
Campus B	3	Teacher 6B	189.4	38%	197.3	47%	9%
Campus A	4	Teacher 6A	201.1	73%	207.9	69%	-4%
Campus A	4	Teacher 7A	201.1	72%	207.9	76%	4%
Campus B	4	Teacher 7B	201.1	61%	207.9	55%	-6%
Campus A	5	Teacher 8A	210.7	70%	216.5	63%	-7%
Campus A	5	Teacher 9A	210.7	62%	216.5	64%	2%
Campus B	5	Teacher 8A	210.7	61%	216.5	60%	-1%
District	3,4,5	WT District		59%		60%	1%

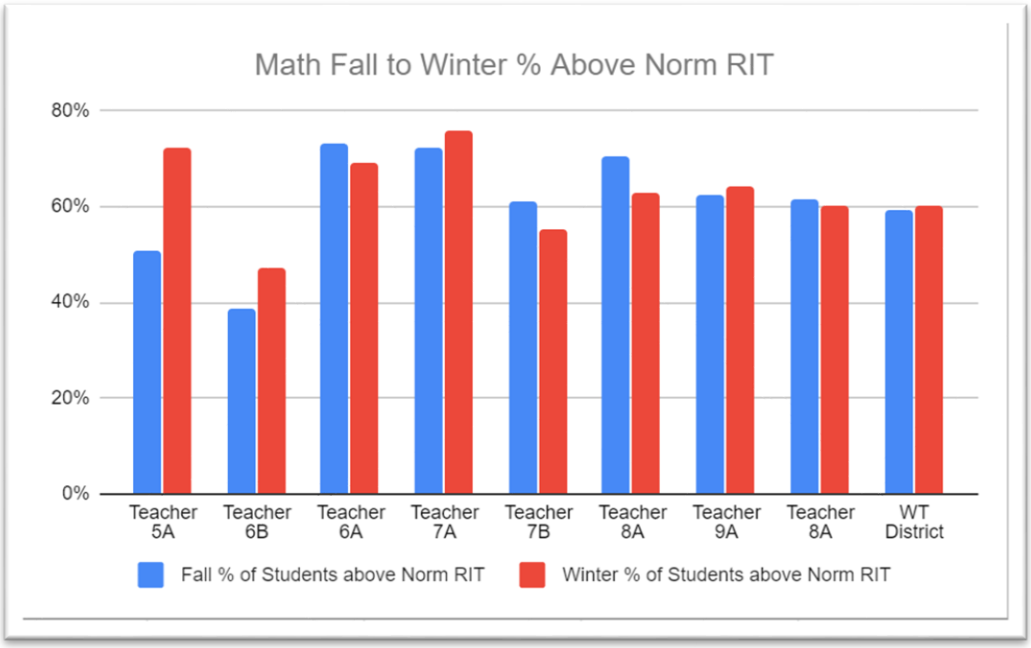


Figure 10 – 3rd - 5th Grade Math NWEA MAP % of Students above Norm RIT Fall to Winter– This figure displays the 3rd – 5th grade Math RIT scores by teacher from the Fall to Winter assessments of those students who were above the Norm RIT score.

Data Triangulation

Table 19 and Figure 11 display the same data points based on the teacher evaluation averages. These data points include the baseline data averages collected from teacher evaluations at the end of the 2018 – 2019 school year from the focus teachers within this study. During the 2018 – 2019 data collection, Campus A had an overall average evaluation score slightly above that of Campus B at 2.95. During Semester 1 of the 2019 – 2020 school year, both Campus A and Campus B had an overall average of 3.125. At the end of the second semester, Campus A had an overall evaluation average that was slightly higher than Campus B. However, Campus A and B showed a slight

decline in the overall average score from Semester 1 to Semester 2.It should be mentioned that the Semester 1 teacher evaluations at both campuses were announced evaluations, meaning that teachers were notified of the date and time that the administration would be collecting the evaluation data. Semester 2 teacher evaluations were unannounced, meaning that the teachers were unaware of the date and time that he or she would be observed. Also, due to the global pandemic, Semester 2 teacher evaluations were conducted during live, virtual class lessons.

Table 19

Teacher Evaluation Data including 2018 - 2019 Baseline and 2019 - 2020

Semester	Campus A	Campus B
Baseline 2018-2019	2.95	2.85
Semester 1	3.125	3.125
Semester 2	3.063	2.938

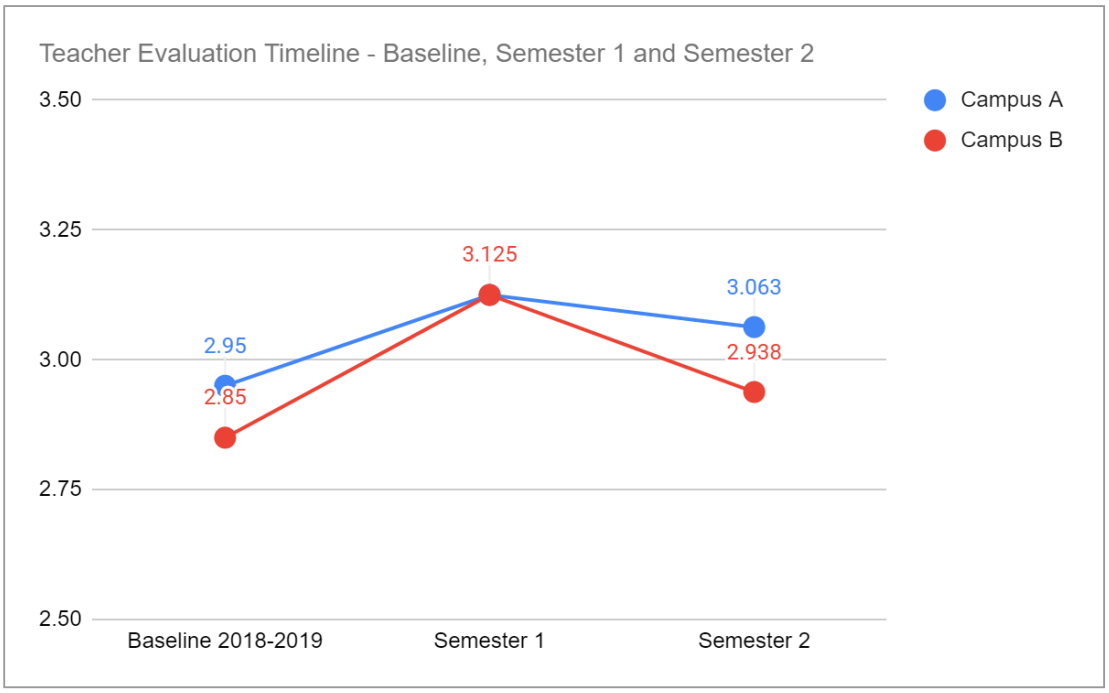


Figure 11 – Teacher Evaluation Timeline – Baseline, Semester 1 and Semester 2 - This figure displays teacher evaluation score averages for Campus A and Campus B beginning with the baseline data averages, leading to the Semester 1 and Semester 2 data averages.

Table 20 displays the individual teacher data including teacher evaluation data from the baseline, Semester 1 and Semester 2, and an individual overall average. This individual teacher data also in overall student NWEA MAP RIT data difference from the Fall to Winter MAP assessment. Based on the data table, 6 out of the 17, or 35% of teachers showed a negative RIT difference, meaning that those students showed an overall decline in learning for the 2019 – 2020 school year. Of those six teachers, four were from Campus B and two were from Campus A. Teacher 6A and Teacher 7A showed the lowest overall evaluation average with 2.75 and 2.25, respectively, as well as both teachers show a negative RIT difference, -1.44 and -0.97, respectively. Teacher 3A

showed the highest RIT difference of 3.15 with an overall evaluation average of 3.00. Teacher 9A displayed the highest overall evaluation average at 3.75 with an increase in RIT difference of 0.88.

Table 20

Teacher Evaluations 1C, 3C Averages vs. RIT Differences

Campus	Teacher	Baseline 1C, 3C Avg.	First Semester 1C, 3C Avg.	Second Semester 1C, 3C Avg.	Overall 1C and 3C Average	RIT Difference
Campus A	1A	3	4	3	3.50	0.64
Campus B	1B	3	3	3	3.00	0.59
Campus B	2B	3	3	3	3.00	-2.20
Campus A	2A	3	3	3	3.00	0.32
Campus B	3B	3.5	2.5	3.5	3.00	0.01
Campus B	4B	3	3	3	3.00	-1.97
Campus A	3A	3	3	3	3.00	3.15
Campus A	4A	3	3	3	3.00	1.40
Campus B	5B	3	3	3	3.00	-1.84
Campus A	5A	3.5	3.5	3.5	3.50	2.62
Campus B	6B	3	3	3	3.00	1.10
Campus A	6A	3	2.5	3	2.75	-1.44
Campus A	7A	2.5	2	2.5	2.25	-0.97
Campus B	7B	3	3	3	3.00	-1.99
Campus A	9A	4	3.5	4	3.75	0.88
Campus B	8B	3.5	3	3.5	3.25	0.01

Table 21 and Figure 12 presents the same data points based on the teacher evaluation averages data and the overall percent averages for the targeted instructional strategies (TIS) by campus. Both Campus A and Campus B show the same teacher evaluation average of 3.125 for Semester 1. Campus A, however, shows just above a 17% higher implementation of the targeted instructional strategies. During Semester 2, both Campus A and Campus B saw a decrease in overall teacher evaluation averages, with Campus A showing a higher average of the teacher evaluation and a higher percentage of increase in the implementation of the targeted instructional strategies. Campus A and

Campus B displayed an increase in the rate of implementation of the targeted instructional strategies from Semester 1 to Semester 2. Campus A and Campus B also had an increase in its application of about 14% from Semester 1 to Semester 2.

Table 21

Teacher Evaluation Averages vs. % of Implementation of Targeted Instrucitonal Strategies (TIS)

Campus	Semester	Teacher Evaluation Avg.	% TIS Implementation
Campus A	1	3.125	63.23%
Campus B	1	3.125	46.10%
Campus A	2	3.063	77.80%
Campus B	2	2.938	60.42%

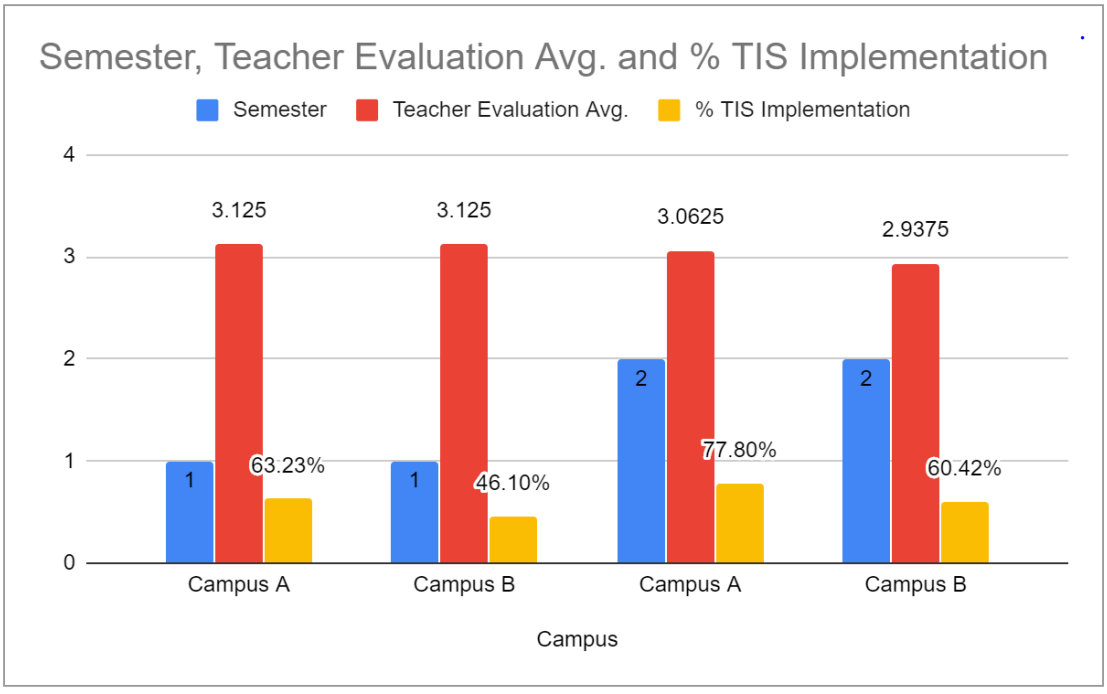


Figure 12 – Teacher Evaluation Averages and Percentage of Targeted Instructional Strategies Implementation by Semester - This figure displays teacher evaluation score averages for Campus A and Campus B for Semester 1 and Semester 2 as well as the overall percentage of targeted instructional strategies.

Summary

This research study provided results for each of the four research questions addressed and Chapter 4 discussed the results collected. The data collected and analyzed resulted in identifying the effects of targeted professional development, and its implementation on teacher effectiveness and student achievement. Due to a global pandemic, the end of year teacher evaluations were conducted in a virtual atmosphere, however, the in person evaluation protocols still followed the district and campus requirements. In addition, the end of year district Instructional Rounds were not able to occur, but data was able to be analyzed based on initial Instructional Rounds data and other data points in order to achieve results.

If possible, continuing this research study would provide additional data to support findings to better determine the effects that targeted professional development, and its implementation have on teacher effectiveness and student achievement. Chapter 5 will discuss the results and the effects of the data collected and analyzed in drawing conclusions, implications, and recommendations for future research.

CHAPTER 5

CONCLUSIONS & REFLECTIVE PLANNING

This research study examined in detail the affects that effective professional development and teacher evaluations have on student achievement at two different elementary campuses located in a West Texas charter school district. Chapter 5 begins with an overview of the problem, research questions, and the purpose for the research study. Sections within this chapter include a review of the methodology and a summary of the major findings. The final sections of the chapter will provide findings related to the literature from Chapter 2, fiscal implications, recommendations for future and concluding remarks.

Overview

Professional development provides advanced learning opportunities to develop more effective teachers and insure growth in student learning and achievement. Inconsistencies in the development and implementation of professional development often hinders teacher growth in the classroom, essentially leading to a lack of student achievement on state or local assessments. The problem addressed in this study was whether teacher and student performance data was effected by the implementation of professional development based on an targeted problem of practice.

Research Questions

The research questions for this research study were:

1. What effect does the implementation of targeted professional development, based on Instructional Rounds Problems of Practice, have on teacher evaluation scores?

2. What effect does the implementation of targeted professional development planning, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

3. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on teacher effectiveness?

4. What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

Purpose of the Study

The purpose of this research study was to look at the implementation of targeted professional development planning and delivery based on the identified problems of practice while focusing on specific instructional strategies. The research identifies the correlation, if any, between the implementation of targeted professional development planning of instructional strategies and teacher effectiveness on evaluation scores using the district identified Instructional Rounds (IR) problem of practice developed from the Harvard Instructional Rounds Model. Lastly, the study is also based on evaluation scores

and student performance on norm-referenced test results from the Northwest Evaluation Association's Measure of Academic Progress exam (NWEA MAP).

Methodology Review

This action research study used quantitative data that was collected, analyzed, and integrated within the research. The information collected in this study was provided by the HPS district and central offices of the two elementary campuses. This study used archival data from the 2018 – 2019 school year to act as a baseline for teacher evaluation scores and the identified districtwide problem of practice. The identified district problems of practice from the 2018 – 2019 school year were utilized as the focus data for the beginning of the year professional development plan for teachers using the Instructional Rounds process. Information from the 2019 – 2020 school years professional development and student assessment data from a norm-referenced assessment was used as well.

In order to analyze the effects of professional development on teacher evaluations and student achievement, walk through evaluation data was collected from the focus teacher's classrooms on a weekly basis by the researcher to see how the implementation of the targeted instructional strategies coincided with the district problems of practice. This data was then triangulated with the focus teacher's 2019 – 2020 school year evaluation scores and the average student NWEA MAP RIT scores from the Fall and Winter assessments.

Summation of Major Findings

This research study provided significant results for one out of the four research questions addressed. By using the Instructional Rounds process to develop targeted professional development and planning, this research identified interesting relationships between teacher evaluations and the application of targeted instructional strategies. While all of the teachers in this study implemented the targeted instructional strategies, the results varied between the two focus campuses. Both campuses showed increases in average teacher evaluation scores from the baseline information to the end of the year data.

Three out of the four research questions addressed resulted in mixed results. Each of these three questions involved student data averages from the NWEA MAP assessments administered in the Fall and Winter at each of the focus campuses. While some student and teacher focus groups showed increases in assessment data, other groups did not. Due to this assessment data, no significant results were found.

Findings Related to the Literature

This study strengthens the understanding between the implementation of targeted professional development and its connection to teacher effectiveness and student achievement. Previous research examined the relationships between the implementation of effective professional development, the impact of professional development on teacher effectiveness, and teacher performance and student achievement through student assessments. While these studies had mixed results, the consistency in the findings

showed that there were positive and negative relationships between the identified topics researched. Another finding from the literature reviewed in this project was a lack of triangulation in regards to all research investigated within this study. This study was conducted to address the gap in the literature by linking previously published scholarly data and focusing on the effects of targeted professional development on teacher effectiveness and student achievement.

Compared to previous research in this area of education, this study's research data focused on the impacts of targeted professional development on teacher effectiveness and student achievement at two elementary campuses in El Paso and West Texas. Specifically, this study examined the affects that targeted professional development based on the identified district problems of practice has on teacher evaluation scores.

The study also looked at the outcomes of student data from the NWEA MAP assessment based on the implementation of the targeted strategies taught during the district's professional development days. In addition, this research triangulated targeted instructional strategies, teacher evaluation scores, and NWEA MAP assessment scores to determine overall teacher effectiveness. Lastly, the research study investigated the implementation of targeted instructional strategies and student success rates on NWEA MAP assessments. This research study was conducted during the 2019 – 2020 school year and included two campuses within a West Texas charter school district, grades 3 – 5, focusing on 17 teachers and the average assessment data from a total of 612 students. The

results of this study, in relation to the literature from Chapter 2, were presented by addressing each of the research questions.

Question 1: What effect does the implementation of targeted professional development, based on Instructional Rounds Problems of Practice, have on teacher evaluation scores?

In Chapter 2, the review of literature presented mixed results between the affects that professional development and the implementation of the learned strategies had on teacher evaluation scores. Studies that showed negative results discussed the professional development trainings in isolation to the teachers, meaning a one and done approach (Howard, 2009). In addition, when teachers did not receive follow-up support in regard to the professional development and the strategies learned, they often became frustrated and did not continue to implement the learned practices (Howard, 2009, Mitzell, 2010). Research conducted by Shaha, Glassett, & Copas (2015) indicates that teachers who consistently and continuously participated in professional development opportunities had greater gains in teacher evaluation scores. Positive research findings in studies suggest that professional development leads to professional learning and growth (Darling-Hammond, Hyler, & Gardner, 2017). Lemov's (2015) asserts that teachers are forever learning new knowledge, skills, and techniques to reach mastery and grow their students to success.

The data included in this research study concerning the implementation of targeted professional development and the effects on teacher evaluation scores revealed

positive results in contrast to several of the research studies used in this project.. While instructional strategies implementation percentages varied between campuses and teachers, teacher evaluation score averages did increase from the baseline averages to the end of the year averages. While limitations need to be factored into these findings, there was a positive increase in teacher evaluation averages with some percentage of implementation of the instructional strategies by all focus teachers in this research study.

Several data points were discussed in order to present the overall findings in regard to the effects of targeted professional development on teacher evaluation scores. Figure 1 from Chapter 3 showed a varying degree of instructional strategy implementation from each of the two focus campuses from the beginning to the end of this study. However, it was visible that Campus A implemented the instructional strategies to a higher degree than that of Campus B's implementation during this research. When a comparison chart was presented, as referenced in Figure 2, with the addition of the overall averages in teacher evaluation scores from the focused evaluation components, 1C and 3C, Campus A increased in the overall average from a baseline of 2.95 to 3.063. Campus B also showed an increase in the overall average teacher evaluation scores from the baseline score of 2.85 to 2.938.

Both Campus A and Campus B showed positive increases in teacher evaluation scores with the implementation of the instructional strategies learned from the targeted professional development. Campus A implemented targeted instructional strategies with higher percentages as seen in Figure 1, than Campus B. This resulted in Campus A

having a positive increase in the overall average of teacher evaluation scores from the baseline average to the end of the year average of 0.113. However, Campus B still showed a positive increase in the overall average of teacher evaluation scores from the baseline average to the end of the year average of 0.088. These averages reinforce the findings from the previously mentioned research studies which argue that consistently participating in professional developments and adhering to the fidelity of the learned strategies leads to increase teacher evaluation scores (Shaha, Glassett, & Copas, 2015, Darling-Hammond, Hyler, & Gardner, 2017).

Question 2: What effect does the implementation of targeted professional development planning, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

In order to investigate the correlation between targeted professional development planning and student assessment performance, Instructional Rounds data was collected to determine instructional areas of weaknesses. The information was then utilized to create professional development trainings and used for teacher planning in their professional learning communities. Student NWEA MAP assessment score averages, specifically RIT scores and growth percentage averages were used in conjunction with the Instructional Rounds and used to determine a correlation. The data from the Instructional Rounds process from September 2019 and January 2020 showed improvements in the areas of weakness. While the data from the Instructional Rounds process from the beginning of the 2019 - 2020 to January 2020 did show increases in the identified areas in need of

improvement, the information provided varying Instructional Round data and student NWEA MAP assessment results. While some student groups displayed increases from the Fall to Winter administrations of the assessment, other student groups displayed decreases.

As previously answered in Research Question 1, consistently providing teachers with professional development training and allowing them to continuously practice learned strategies leads to improvement in teacher growth and classroom effectiveness (Shaha, Glassett, & Copas, 2015). The research conducted by Shaha, Glassett, and Copas (2015) concluded that this leads to student success in assessment scores. Chapter 2 findings concluded that teacher planning and preparation was not only a key component in teacher effectiveness, but it also increased student achievement (Danielson, 2019, Marzano, 2007). In addition, planning and preparing to fill individual student learning gaps aides the teacher in building on the knowledge necessary for the students to reach the mastery level of concepts being taught (Bjorklund-Young & Bokoski, 2016).

The literature in Chapter 2 also presented findings in regard to the Instructional Rounds process and the positive results for continuous improvement for the classroom teacher and entire schools and districts (Meyer-Looze, 2015). These conclusions were built on the idea that the Instructional Rounds process focused more on shared learning as opposed to individual learning in order to strengthen educators' content and pedagogy skills and can assist in developing a culture of collaboration (Marzano, 2011, City, Elmore, Fiarman, and Tietel, 2016). The research conducted on the Instructional Rounds

process suggested that this practice should not be recommended without continuous professional development trainings, effective dialogue on best practices, and professional learning communities (Meyer-Looze, 2015).

Building on previous scholarship, the implementation of norm-referenced assessments, such as the NWEA MAP, utilizing data from instructional rounds, implementing professional learning communities to discuss data, and faithfulness to these practices will lead to improved student achievement by filling learning gaps (NWEA, April 2019). While the research on the implementation presented mixed results, the commonality for the positive results utilized all previously mentioned components; Instructional Rounds, Professional Learning Communities, and fidelity to these practices. In addition, the case studies conducted on the NWEA MAP assessment concluded that when educators see the benefits of Instructional Rounds process or the use of NWEA MAP, they want to learn more and ask for professional development opportunities to advance their own learning (Darling-Hammond, Hyler, and Gardner, 2017).

Instructional Rounds data and NWEA MAP data were used to review the relationship between targeted professional development planning and student performance. Since the areas of weakness were previously identified as the district problems of practice, these areas were analyzed within the Instructional Rounds data. The identified district problems of practice were:

- **Domain 1: Planning and Preparation**

  -Component 1c: Setting Instructional Outcomes

- **Domain 3: Instruction**

-Component 3c: Engaging Students in Learning (Danielson, 2013)

The Instructional Rounds data presented in Chapter 4 included combined data from September 2019 and January 2020 for both Campus A and Campus B, as displayed in Table 8 and Table 9. When analyzing this data in terms of the district problems of practice, the levels of questions asked had a low percentage of higher-level questions. 21%, were asked during the September 2019 Instructional Rounds process and lower-level questions asked during the September 2019 rounds were at 58%. After the implementation of the targeted professional development, which applied targeted instructional strategies with a focus on the district problems of practice, as well as teacher planning and preparation during professional learning communities, the level of lower-level questions decreased to 17%, a drop of 41%. Mid-level to high-level questions asked increased from 21% to 83%, an increase of 62%. Student engagement increased overall from 38% during September 2019 to 68% during the January 2020 rounds, an increase of 30%. Students at the ritual compliant engagement level decreased from 58% to 26% respectively, a decrease of 32%, while the percentage of student at higher levels of engagement increased from 46% to 79% from September 2019 to January 2020, an increase of 33%.

The NWEA MAP data presented in Chapter 4 showed the implementation of the assessment and data collected from the Fall and the Winter 2019 – 2020 school year. The NWEA MAP data included grades 3 – 5 Reading and Math assessment data as displayed

in Chapter 4 in Tables 11 through 18 and Figures 3 through 10. The date shows that the district as a whole positively increased with varying results in certain campuses. Some students groups showed larger gains in Norm Mean RIT averages and changes in overall Norm Mean RIT scores from Fall to Winter, while other groups of students showed small gains in Norm Mean RIT averages and changes in overall Norm Mean RIT scores from Fall to Winter.

The 3rd – 5th grade Reading and Math focus groups has varying results in overall averages. The WT District displayed a 1% increase in the percentage of students above the Norm RIT from Fall to Winter in both Reading and Math. During the Fall semester administration of the NWEA MAP assessment, 59% of district students scored above the Norm RIT in both Reading and Math. In the Winter semester, 60% of the students scored above the Norm RIT for both Reading and Math during administration of the NWEA MAP

Question 3: What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on teacher effectiveness?

In order to examine the relationship between the implementation of specific instructional strategies and teacher effectiveness, several data points needed to be used and triangulated. As detailed in Question 1, the implementation of the instructional strategies varied between campuses and teachers, however, teacher evaluation score averages did increase from the baseline averages to the end of the year averages. As

mentioned, while limitations need to be factored into these findings, there was a positive increase in teacher evaluations with some percentage of implementation of the instructional strategies by all focus teachers. To further the idea of teacher effectiveness, this research study included the teacher contributions the focus student groups achievement (Allen, et.al., 2007). Therefore, focus teacher data from the NWEA MAP assessment was included. Question 2 thoroughly discussed the NWEA MAP results in regard to student focus group averages. This research question was designed to provide conclusive date to the overall student growth in NWEA MAP RIT percentages from the Fall to Winter administration for both Reading and Math. The NWEA MAP data presented showed varying results in regards to contributions made by teachers for student achievement because some educators displayed positive growth and negative growth in student achievement.

Table 14 and Figure 6 from Chapter 4 displayed the same data points based upon the WT District and 3rd through 5th grade Fall to Winter percentages of students who were above the National Mean RIT in accordance to the NWEA MAP Reading assessment data. Based on the data tables, 50% from Campus A showed a positive change in percent of students who were above the National Norm RIT from Fall to Winter and 50% of teachers at Campus A showed a negative change in the percent of students who were above the National Norm RIT from Fall to Winter. The data for Campus B displays that 60% of teachers showed a positive change in the percent of students who were above the National RIT from Fall to Winter. Further one of the five teachers had no percentage increase or decrease and remained the same in the percent of students who were above

the National Norm RIT. The data also showed that one of the five teachers from Campus B showed a negative change in the percent of students who were above the National Norm RIT from Fall to Winter. Overall, the WT District showed an increase of 1% of students were above the National Norm RIT from Fall to Winter. Approximately 66.7% of the study's focus teachers were above the overall average percent of increase for the WT District, in regards to the changes in student growth.

Table 18 and Figure 10 from Chapter 4 displayed the same data points based upon the WT District and 3rd through 5th grade Fall to Winter percentages of students above the National Mean RIT according to the NWEA MAP Math assessment data. This data displayed that 50% of teachers within the focus group showed negative changes in student growth in NWEA MAP RIT scores from Fall to Winter. 40% of teachers from Campus A showed an adverse shift in student growth from Fall to Winter, while approximately 66.7% of teachers from Campus B showed a negative change in student growth from Fall to Winter. The WT District displayed an overall change of 1% in student growth from Fall to Winter. Approximately 50% of the focus teachers in this research study were above the overall average percent of increase for the WT District, regarding the changes in student growth.

Question 4: What effect does the implementation of specific instructional strategies in Math and Reading classrooms, based on Instructional Rounds Problems of Practice, have on student performance on assessment results?

This research study utilized the data from the instructional strategies implemented at each of the two focus campuses and student averages from the NWEA MAP assessments to investigate the relationship between targeted professional development and its effects on student assessment performance. As previously stated in Questions 1 and 3, varying results occurred in regard to the NWEA MAP assessment data when investigating student averages regarding growth. Execution of the instructional strategies varied between campuses and teachers, as displayed in Chapter 4, Figure 1. Limitations need to be factored into these findings, concerning classroom environment, testing environment, and commitment to the implementation of instructional strategies. Several student groups did show growth in NWEA MAP Norm RIT data, as well as overall growth in the percent of students identified above the Norm RIT; however, several student groups displayed little to no increase in these areas.

Fiscal Implications

The overall total budget for this research study was $79,964.57. All of the costs for this research study were indirect costs. All of the costs were necessary, but standard based upon previous years. However, the implementation of strategic instructional strategies and the collection of data collection were included in order to gauge effectiveness of current professional development.

Recommendations for Future Plans

This study was conducted to determine that planning targeted teacher professional developments based on the identified district problems of practice would lead to more

effective classroom educators and teacher evaluation scores. By having effective teachers in classrooms implementing specific instructional strategies that tie into the identified problem of practice for the district, the study hoped to conclude that students show growth on NWEA MAP data.

Several areas should be considered for further research within this study to develop a better understanding of effective professional development planning and its impact on teacher evaluations and student growth. The main areas for further investigation include identifying other schools who have implemented the NWEA MAP assessment to expand the size of the focus groups and increase the confidence in the results. Additional research should expand the analysis of the NWEA MAP assessment scores and teacher evaluation scores to include individualized teacher evaluation scores and student NWEA MAP RIT scores to identify more individualized increase or decreases. Further, testing environments were not investigated or discussed within this research study, however, this researcher would recommend implementing this aspect into future research to adhere to the fidelity of the NWEA MAP assessment administration. This would also require the research to continue over a longer period.

The two campuses involved in this research were provided with the targeted professional development and targeted instructional strategies training. While each of the focus group teachers did implement the instructional strategies within the classroom to some degree, it was not a requirement of the individual school to enforce the implementation. Additionally, due to the global pandemic of 2020, this researcher was

not able to identify new areas of weaknesses or growth from the end of year district instructional rounds. While instructional rounds were conducted by the campuses and the district monthly throughout this study, the concluding data used to determine areas of growth and areas in need of improvement was concluded in January 2020. For future studies, due to these addressed factors, this researcher would recommend only including campuses that utilize the taught instructional strategies as a common practice. This will help to provide more reliable implementation data. In addition, end of year instructional rounds data would be included in future research in order to determine overall yearly areas of growth and new areas that require improvement.

Concluding Remarks

This research was designed to explore the effects of targeted professional development, based on the Instructional Rounds problems of practice, on teacher evaluation scores, student assessment results, and teacher effectiveness. In some cases, these research results identify teacher effectiveness in regard to student assessments and evaluation scores. The strongest and most consistent findings indicate increased teacher evaluation scores based on the implementation of the targeted instructional strategies taught during the targeted professional development days. These results reinforce previous scholars that state that teachers who participate in on-going professional development and implemented it training in their classrooms to fidelity showed improved evaluation scores.

Further areas of examination addressed in this research study are recommended by this researcher, not only due to the necessity of gathering additional data to strengthen the overall results, but also due to the global pandemic of 2020; COVID- 19. With the closing of educational institutions across Texas and the world, districts were forced to change practices from face-to-face instruction in school buildings to virtual learning. The virtual learning atmospheres were new to many districts in Texas, therefore, the learning experience differed from virtual classroom to virtual classroom. Teacher evaluations were conducted differently as well, also virtually. Exploring further components within this research during a regular school year with consistent face-to-face classroom instruction could result in additional data that supports or solidifies the mixed and positive findings from this study.

Appendix

Appendix A

Observable Instructional Strategies Observed		
DATE	**YES (observed)**	**No (not observed)**

Appendix B

Participant Consent Form for Walk-throughs, Observations, and Evaluation Averages

The Effectiveness of Professional Development Planning with The Implementation of Targeted

Instructional Strategies and The Impact on Teacher Evaluation and Student Growth

The purpose of the study:
I understand that the purpose of this study is to understand more about professional development planning and implications on teacher evaluation scores and student growth. This is not an experiment. The researcher will not attempt to change the manner in which this class is taught.
I agree to the following during the 2019-2020 school year.

1. The researcher may request to speak with me about my understanding of specific strategies implemented in this class and my attitudes toward the instructional strategies utilized. I can accept or decline this invitation without repercussions and still participate in other parts of the study.

I understand that:
1. Participation is strictly voluntary. I can refuse to answer any questions that I do not wish to answer.
2. The information gathered will not affect other evaluations made by the campus administration.
3. The information gathered will be confidential. Student and teacher names or any other identifying factors will be removed from any report or publication of the data or results.
4. I may opt out of the project at any time and for any reason I deem necessary with no repercussions if I give written notice to the researcher.
5. Approximately 20 teachers over 2 campuses in grades 3 - 5 have been asked to participate.
6. Participation in this study will not directly provide any benefits to me. Declining participation in this study will not cause adverse actions to be taken against me or my grades.
7. The researcher will observe some class sessions during the semester but will not audio or video tape the classes.

I understand that this research study will be reviewed and approved by the Institutional Review Board at both Harmony Public Schools and California University of Pennsylvania. For research-related problems or questions regarding subjects' rights, I can contact the Institutional Review Board through Dr. Melissa Sovak, Chair, Instructional Review Board, instreviewboard@calu.edu.

____X_I am 18 (eighteen) years old or older.

_____I am 17 (seventeen) years old or younger. (Your parents will need to sign this form as well).

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been given a copy of this consent form.

Teacher's name PRINTED _____

Teacher's Signature _____ Date_____

ONLY For students 17 years old and younger:
I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to allow my child to participate in this study. I have been given a copy of this consent form.

Parent's Signature _____ Date_____

If I do NOT wish to participate, I will not return this form. No adverse actions will be taken against me or my grades if I choose this option. I will still participate in all the same tests, assignments, and other classroom activities as the rest of the class.

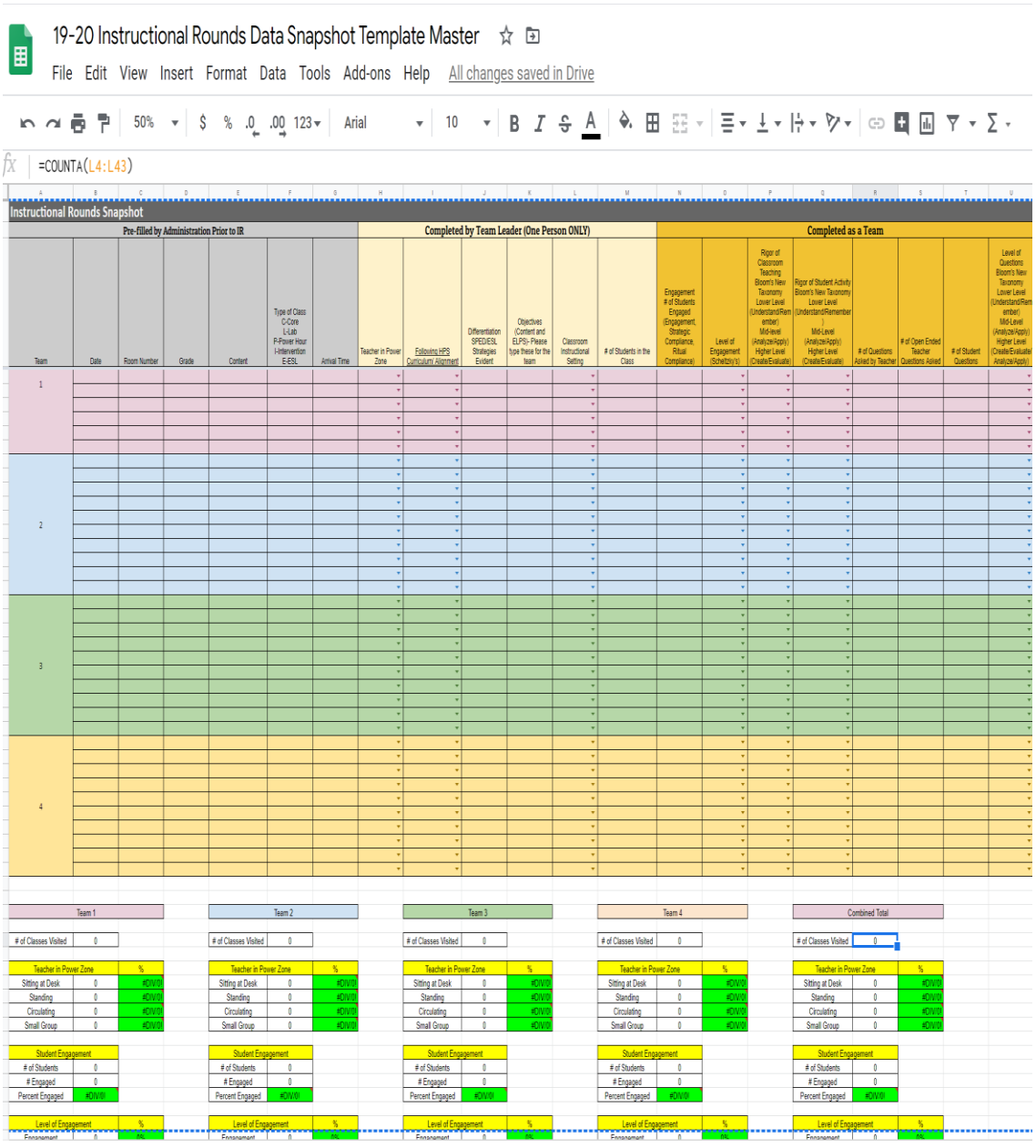
Researcher's Signature _____ Date _____

If you have any questions or concerns, please contact:

Researcher: Michaelene Sepesy (915)500-2861, sep4971@calu.edu

THE EFFECTIVENESS OF PROFESSIONAL DEVELOPMENT PLANNING WITH THE IMPLEMENTATION OF TARGETED INSTRUCTIONAL STRATEGIES AND THE IMPACT ON TEACHER EVALUATIONS AND STUDENT GROWTH

Appendix C



Appendix D

Teacher Evaluation Averages

Row Labels	Level of Performance from Rubric	Average of Score from identified components/domains
Campus A Averages		
Teacher 1A		
Teacher 2A		
Teacher 3A		
Teacher 4A		
Teacher 5A		
Teacher 6A		
Teacher 7A		
Teacher 8A		
Teacher 9A		
Campus B Averages		
Teacher 1B		
Teacher 2B		
Teacher 3B		
Teacher 4B		
Teacher 5B		
Teacher 6B		
Teacher 7B		
Teacher 8B		
Overall Averages		

Appendix E

Student NWEA MAP RIT Averages

Fall 2019 Reading

Campus	Teacher	Grade	# of Students	# of Students above Norm RIT	Mean RIT	Norm RIT	RIT Difference	% of Students above Norm RIT	% of Growth Points Earned

Fall 2019 Math

Campus	Teacher	Grade	# of Students	# of Students above Norm RIT	Mean RIT	Norm RIT	RIT Difference	% of Students above Norm RIT	% of Growth Points Earned

Winter 2020 Reading

Campus	Teacher	Grade	# of Students	# of Students above Norm RIT	Mean RIT	Norm RIT	RIT Difference	% of Students above Norm RIT	% of Growth Points Earned

Winter 2020 Math

Campus	Teacher	Grade	# of Students	# of Students above Norm RIT	Mean RIT	Norm RIT	RIT Difference	% of Students above Norm RIT	% of Growth Points Earned

Appendix F

Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.

Dear Michaelene,

Please consider this email as official notification that your proposal titled "The Effectiveness of Professional Development Planning with the Implementation of Targeted Instructional Strategies and the Impact on Teacher Evaluation and Student Growth" (Proposal #18-100) has been approved by the California University of Pennsylvania Institutional Review Board as amended.

The effective date of approval is 9/13/19 and the expiration date is 9/12/20. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 9/12/20 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board

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