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EVALUATION OF PERSONALIZED LEARNING

by

JORLY THOMAS

A dissertation submitted in partial fulfillment
of the requirements for the degree of
School Improvement Ed.D.
Department of Education

Forrest Kaiser, Ed.D., Committee Chair

College of Education and Psychology

The University of Texas at Tyler
August 2023

The University of Texas at Tyler
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Abstract

EVALUATION OF PERSONALIZED LEARNING

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Forrest Kaiser, Ed.D.

The University of Texas at Tyler

June 2023

The persistent challenges surrounding student achievement continue to raise questions about the effectiveness of personalized learning methods, and educators seek a reliable means to determine if the implementation of personalized learning can lead to improved academic outcomes. Improvement science presents a promising approach, providing iterative inquiry cycles and data-driven decision-making strategies that can empower teachers to make informed decisions (Regional Educational Laboratory Program, 2017). The purpose of this study was to examine the effects of personalized learning on reading achievement in sixth-grade students on a Texas middle-school campus. While prior research has demonstrated promising outcomes with this learning method (Pane et al., 2015; Patrick et al., 2016; U.S. Department of Education, Office of Educational Technology, 2017), additional studies are required to validate these findings comprehensively. This mixed-methods approach utilizes both qualitative and quantitative data collection to determine whether personalized education can be considered beneficial for improving students' literacy aptitudes. Personalized learning incorporates multiple components designed to support improved learning outcomes, potentially leading to an overall boost in reading comprehension, as assessed by MAP testing (Benjamin, 2023). The goal was to examine the overall effectiveness of personalized learning by measuring reading outcomes for sixth-grade students on a Texas middle-school campus.

Keywords: Personalized learning, small group instruction, project-based learning, mentoring, reading comprehension, cognitive development

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Chapter 1

The Problem of Practice

Educators are growing concerned about the effectiveness of personalized learning in improving student achievement. To determine its impact, it is essential to use mixed-method research, which allows reliable measurement of academic gains. Improvement science is an approach that can facilitate data-driven decision-making, supporting teachers and schools leaders in making informed choices (Regional Educational Laboratory Program, 2017).

In this study, I investigated the effect of personalized learning on sixth-grade students' reading achievement at a Texas school. While previous research has shown promising outcomes with this approach, further investigation is required to validate these findings fully. I used qualitative and quantitative research methods to assess the potential benefits of personalized education in enhancing student literacy skills. Personalized learning includes various components that promote better learning outcomes, such as enhanced reading comprehension measured by MAP (Measures of Academic Progress) testing (Benjamin, 2023). I evaluated the overall effectiveness of personalized learning by assessing reading outcomes, but my study was limited to one campus and may be influenced by my role, which I will explain in the Positionality section.

Background of the Problem

Academic disparities have continued to persist in reading, math, science, and social studies for many students. These issues can be attributed to factors such as a lack of timely interventions when needed, pedagogy that fails to address individual student learning needs, and increasing levels of disengagement among learners coupled with low self-awareness on their part

regarding socioemotional matters. The latest National Assessment of Educational Progress reading evaluation for 2022 indicates that only 31% of eighth-grade students attained proficiency or higher reading grades. This percentage reflects a decline of 3% from the previous assessment conducted in 2019. These results confirm the need for personalized interventions that enhance student literacy skills, targeting the downward trend in reading achievement. Adopting effective measures that improve reading comprehension among eighth-grade students can significantly increase proficiency levels, elevating the educational standards nationwide.

According to research by the National Assessment Governing Board, only 37% of 12th graders demonstrated adequate academic preparation for reading at the college level in 2019 (Nation's Report Card, 2019). This sobering finding underscores the considerable gap between expected academic achievement levels and actual abilities, emphasizing the critical importance of reading comprehension for college success and beyond. Inadequate high school preparation can prove to be a detriment for students attempting to further their education, as remediation courses may hinder success in completing college programs (National Center for Education Statistics, 2015). As evidenced by Sanabria et al.'s (2020) research findings on 2-year collegiate institutions, being forced into such courses reduces the probability that individuals will earn an associate degree and transfer elsewhere for continued study opportunities. The widening achievement gap and the ongoing need to enhance literacy rates among American youth persist in creating an optimistic and prosperous future for all.

The United States is facing a poverty crisis, with an estimated 37.2 million people living in poverty and 3.3 million more than the previous year (U.S. Census, 2021). Furthermore, research indicated this alarming rate of impoverishment has far-reaching implications for student

achievement; those struggling to subsist at or below the federal poverty line face disadvantageous conditions often leading to gaps in readiness for academic success on multiple levels—cognitively, emotionally, and socially (Wexler, 2014). This sobering reality demonstrates how America lags behind other Western industrialized nations, such as Romania when it comes to providing assurance against childhood deprivation—the percentage of children living under these trying circumstances exceeds 23% in the United States compared to Romania. In 2020, poverty rates among Whites and Hispanics were disparate at 8.1% to 17.0%, respectively (U.S. Census, 2021). While a child must possess various physical health components, motor-skills capacities, emotional stability characteristics, and age-appropriate social abilities for educational success (Ferguson et al., 2007), African American students disproportionately struggle in achieving academic success due to their economic disadvantages. The U.S. Department of Agriculture (2017) poverty demographics showed African Americans endure poverty more than any other race in America.

Poverty poses an especially significant barrier for African American children, with 38% living below the poverty line in 2015 (Alter, 2017). African Americans had a higher rate of 19.5%, although this figure has remained consistent since 2019, according to U.S. Census (2021) data. Pager and Shepard (2008) discovered African Americans experience an uneven playing field when seeking employment compared to other racial groups. This issue of unequal job opportunities disproportionately affects the African American community. These challenges can manifest themselves academically and behaviorally amongst students facing financial insecurity—depriving them of opportunities they deserve regardless of socioeconomic status or race. Teachers can bridge gaps in learning by creating positive relationships with students,

establishing social skills-based lessons, giving their pupils a sense of control over the material and assessment process, as well as making sure there is an overall atmosphere of care within the classroom environment (Budge & Parrett, 2018). To ensure success among those facing financial hardship or living in poverty remains to be seen; however, educators have taken great strides toward finding solutions.

Statement and Definition of the Problem

Improving reading comprehension in schools has become imperative. One Texas school, for instance, noted 41% of sixth-graders performed below grade level in Reading according to the 2019 State of Texas Assessments of Academic Readiness (STAAR) test (Texas Education Agency, 2022b), indicating a significant deficiency in reading comprehension. According to the Texas Education Agency (2022a), demonstrating robust knowledge of course content and being on grade level signifies “Meets Grade Level” (para. 1). Meeting this standard indicates a student is well-positioned to advance to the next grade level. The STAAR performance categories (Texas Education Agency, 2022a) align test performance levels with the expectations outlined in the Texas Essential Knowledge and Skills (Texas Education Agency, 2022c) curriculum mandated by the state.

Although personalized learning programs have been widely adopted, their potential impact on reading comprehension remains unclear. Consequently, in this study of one Texas school, I aimed to explore the effectiveness of personalized learning programs in response to the challenge of improving reading comprehension among sixth graders. Specifically, I evaluated how personalized programs affect students’ abilities to comprehend and identify texts across various genres. I intend to provide insights and evidence-based recommendations concerning the

effectiveness of personalized learning programs in enhancing reading comprehension. This study's findings should inform future education policies and practices.

Embedded experimental models have acknowledged research tools in evaluating complex interventions and are increasingly utilized in personalized learning (Creswell & Plano Clark, 2017). Personalized learning tailors educational experiences to individual students' unique needs, interests, and learning styles. The heterogeneity of students and the variability of instructional practices necessitate a rigorous and comprehensive research design to evaluate the effectiveness of personalized learning. The embedded experimental model provides this design effectively and efficiently using quantitative and qualitative data. The model can overcome traditional practical limitations, such as artificiality and generalizability by embedding the experimental design within naturalistic settings, such as classrooms or online platforms.

Additionally, the embedded experimental model provides detailed insights into the mechanisms of personalized learning (Creswell & Plano Clark, 2017). These insights include interaction effects between student characteristics and instructional strategies and the role of feedback and motivation in promoting learning outcomes. Consequently, the embedded experimental model offers a promising avenue to advance the knowledge and practice of personalized learning, contributing to improved educational outcomes for diverse and disadvantaged students.

Embedded experimental models are research tools used by academic researchers (Creswell & Plano Clark, 2017). To investigate complex topics, this model combines qualitative and quantitative data, making it an invaluable resource for any scholar. Using this method, quantitative methods are prioritized, as qualitative data provides additional insight into the study.

MAP testing provides a valuable tool for educators to assess and track students' reading progress, allowing them to identify areas of success and potential improvement (Benjamin, 2023). By leveraging such insights, educators can optimize their instructional practices, heighten student engagement, and support learners in achieving academic success. MAP testing embodies a sophisticated and data-driven approach to student assessment, providing accurate and insightful evaluations that enable educators to deliver targeted instruction and promote meaningful learning outcomes.

The web-based assessment system, MAP Skills, created by the Northwest Evaluation Association (2016) for Grades K–8, evaluates students' progress in four essential subjects: language usage, reading comprehension, vocabulary, and mathematics. With nearly 10,000 items incorporated across these categories, MAP Skills delivers insightful, detailed reports to educators, empowering them to tailor teaching techniques to improve academic outcomes. With a proficiency-based assessment platform that measures progress towards specific standards, MAP Skills draws on instruction areas covered in the MAP Growth curriculum while delivering critical insights pre- and post-instruction. The system supports educators in identifying missing foundational skills impeding students' advancement and provides comprehensive guidance focusing on areas of meaningful impact (Burns & Young, 2019).

MAP Skills purposefully identifies missing foundational skills, provides reading level determinations, directs students towards personalized resources, and validates skill mastery within a comprehensive mastery model assessment that can chart progress (Northwest Evaluation Association, 2016). To drive progress toward academic excellence and unleash the full potential of students, the adoption of MAP Skills by educators is a strategic must.

According to this model, the quantitative experiment is conducted first to gather general information about the studied topic, followed by a qualitative phase for more in-depth analysis. As a result, a wide range of insights can be gained, which would not be possible if others pursued both types of data collection. In addition, this approach also allows for cross-validation between the two types of data, leading to more reliable results. Moreover, this process can address researcher bias, as differences between qualitative and quantitative data can be identified and reconciled (Creswell & Plano Clark, 2017).

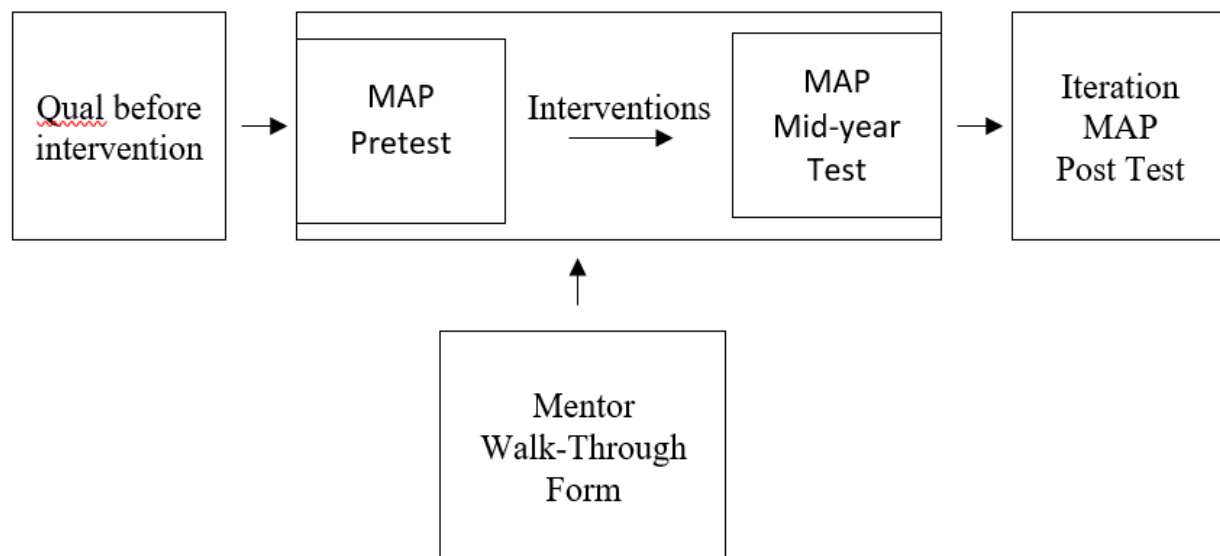
Another advantage of the embedded experimental model is that it facilitates exploratory research. Through its combination of different methodologies, researchers can use this model to investigate a broader range of topics than they otherwise would have been able to do with either one type or another (see Figure 1). Additionally, this approach can simultaneously be used across disciplines to gain insights from different perspectives. Qualitative methods, such as observations and interviews, allow researchers to explore human behavior in detail, while quantitative methods, such as surveys, provide numerical evidence which helps support findings from qualitative sources (Creswell & Plano Clark, 2017).

Using embedded experimental models is a highly effective strategy that numerous esteemed academic scholars employ. This approach integrates quantitative and qualitative research methods, creating a unified study design (Creswell & Plano Clark, 2017). This amalgam of research methods enables researchers to gain a more comprehensive understanding of their research topic, unveiling new insights that would not have been feasible using traditional approaches. Embedded designs are particularly advantageous because they leverage the strengths of both quantitative and qualitative techniques, providing an in-depth understanding of the

phenomenon being studied. By consolidating data from both methodologies, researchers can obtain a comprehensive view of the matter, including identifying linkages between different study aspects. In addition, embedded designs can also be utilized to address questions or issues.

Figure 1

Embedded Experimental Model



Combining Multiple Approaches to Inquiry: Methodology and Justification

This study utilizes an embedded design that combines quantitative and qualitative research methods. By integrating diverse approaches, the research question is explored comprehensively, aiming to understand the phenomenon being investigated. The rationale for selecting this methodology is rooted in its capacity to offer a more nuanced and holistic perspective of the research topic. By merging findings from multiple databases, concealed insights that might otherwise be missed through singular methods are uncovered, enhancing the overall validity and reliability of the findings. As a result, the research outcomes are more robust and impactful (Levitt et al., 2018). Using the causal-comparative/quasi-experimental design, I

aimed to establish cause-and-effect relationships among variables. Unlike true experiments, the independent variable is not manipulated, but its effects on the dependent variable are measured (Winston-Salem State University, n.d.). The qualitative component of the study utilized grounded theory methodology, which systematically collects and analyzes data to generate theory. This approach allows for discovering social processes and relationships based on empirical evidence (Chun Tie et al., 2019).

Instead of randomly assigning groups, I selected naturally formed or pre-existing comparison groups. In this study, two control groups were chosen from 40 comparison groups. The selection process considers factors such as grade levels, economic status, mobility rate, and the population of emergent bilingual or English learner students and students with special needs (Texas Education Agency, 2022d). This ensures accurate comparisons and controls for confounding factors influencing the outcomes.

The study focused on personalized learning, an approach that empowers students to take control of their learning and tailor it to their interests and strengths. By comparing personalized learning to traditional classroom teaching, I aimed to provide valuable insights into personalized learning's effectiveness and potential to improve student outcomes.

By comparing two schools as comparison groups, I strengthened the findings of the study. Each school was paired with a unique comparison group, allowing for a comprehensive comparison between personalized learning and traditional classroom teaching while controlling for other potential confounding factors. This rigorous evaluation method enhanced the validity and reliability of the results.

The careful selection of comparison groups was crucial for accurately assessing the effectiveness of personalized learning. By selecting schools with similar demographics and academic challenges, I controlled for confounding factors and provided policymakers and educators with reliable evidence to inform decision-making.

The grounded theory methodology used in this study ensures the integrity and objectivity of the research process. I constructed abstract categories based on the data through theoretical sampling and analytical memos. This systematic approach allowed for flexibility while maintaining scientific rigor. While grounded theory methodology may be complex, this study encourages novice researchers to engage with its concepts and processes to apply them effectively (Chun Tie et al., 2019). By employing an embedded design and utilizing a combination of research approaches, this study contributes to a comprehensive understanding of the effectiveness of personalized learning in improving student outcomes. Interviewing is a widely used method for collecting data in grounded theory research, a commonly employed approach in qualitative research (Creswell & Poth, 2018). It is the most frequently utilized data collection method in grounded theory, often combined with other methods such as observation and document analysis (Charmaz & Belgrave, 2012). In the past, interviews and focus groups were typically conducted in person, but nowadays, online interviews and focus groups have become common in qualitative research (Foley et al., 2021). When conducting a grounded theory study, semi-structured interviews are particularly suitable when the researcher has identified certain domains that serve as a starting point for the inquiry (Conlon et al., 2015). As a researcher, I employed grounded theory to guide participant interviews, focus groups, and classroom observations.

To enhance sixth-grade students' engagement in reading at a school in Texas, it may be necessary to shift towards personalized learning instruction. Personalized learning tailors the learning experience to individual needs, making content more accessible and engaging for all learners. This approach enables students to explore fascinating topics and gain a deeper understanding of course concepts. Assessing students' prior knowledge and developing individualized instructional strategies are critical components of this strategy. Additionally, teachers should facilitate meaningful interactions and utilize digital learning platforms to encourage collaboration and guide instruction on a personal level. Fostering a personalized learning environment can ensure active engagement, which would ultimately lead to greater comprehension and success in the classroom. Pane et al. (2017) discovered personalized learning instruction could positively impact student outcomes in the reading classroom. Moreover, implementing this approach can promote student engagement, enhancing the personal learning experience. Thus, these findings suggest personalized learning should be considered a valuable strategy to improve student learning in this context.

To address this issue, teachers must adapt their teaching methods and tailor them to meet the needs of each student in the class. The process can be accomplished by integrating various instructional strategies, such as collaborative and project-based learning (PBL). Collaborative learning allows students to take responsibility for their learning by working with their peers to reach a goal or solve a problem (Goodsell et al., 1992). PBL encourages students to explore questions about their subject matter, allowing for further exploration of topics and higher levels of understanding (PBLWorks, 2023). PBL provides students with hands-on experience exploring

a topic or issue in detail, allowing for deeper understanding and more meaningful connections between what they have learned in class and how it applies outside the classroom.

In addition to using different instructional strategies, teachers must ensure that lessons are designed with appropriate difficulty levels while still keeping the material challenging enough to engage all learners in their analysis and thinking skills. By doing so, educators ensure all students have access to lesson content regardless of their prior knowledge or experience that may hinder their participation in class activities. Furthermore, providing differentiated instruction will challenge all learners while providing avenues for success regardless of differing skill levels or academic backgrounds.

Teachers need to utilize technology where possible as it can provide an exciting atmosphere for visual and audio learners alike and appeal to those who prefer tactile learning experiences like gaming systems or interactive prototypes within a classroom setting. Not only does this open up new opportunities for exploration and creativity, but it also provides students with critical skills such as problem-solving, which can be applied outside the classroom environment when exploring real-world issues or challenges facing society today. Adapted materials and robust instruction will enable all learners to benefit from tailored lessons based on individual needs rather than generic one-size-fits-all instructions, which may otherwise limit full participation from some children, leaving them feeling disenfranchised from educational activities.

To better prepare students for academic success, in this study I evaluated the potential of personalized learning programs in improving reading comprehension at a school in Texas. Despite the school receiving state-wide recognition, data analysis revealed a need to improve

student achievement and consequently investigate how personalized instruction may provide more successful results. With this study, I aimed to examine the effects of a personalized learning plan on sixth-grade students' reading performance at a Texas school. By examining various contributing elements, I wanted to discover if this unique educational approach can lead to increased reading comprehension among its pupils.

Theoretical Framework

As a result of the industrial age, it was necessary to develop a systematic approach in separating workers and managers (Collins & Halverson, 2009). Although each student is different from the next, within the educational system, students are given the same amount of time to learn. Thus, students who did not master the content were not given enough time to do so (Bloom, 1987). The educational system must adapt to meet the diverse needs of students and communities in the age of knowledge work (Collins & Halverson, 2009). Lambert and McCombs (1998) proposed that the needs of learners, and not those of teachers, be given top priority in education. This way, a shift in focus toward the needs and development of the learner can make the attainment of successful learning outcomes possible. Additionally, learning should be given greater emphasis over division, which can be achieved by prioritizing learner-centered teaching.

Understanding the rationale behind personalized learning is essential to trace its origins. A synthesis of many psychological and educational theories has led to personalized learning as a systematic approach to classroom instruction. The concept of personalized learning is based on the integration of goal orientation theory, self-determination theory, and flow (Ames & Archer, 1988; Csikszentmihalyi, 2014; Ryan & Deci, 2000).

According to Dweck and Leggett (1988), goal-oriented behavior affects individuals' cognitive, emotional, and behavioral responses to events. As part of personalized learning, students must be able to set their own learning goals. As part of personalized learning, students must be able to set their own learning goals. Teachers can use goal orientation theory to determine how this should function in the classroom. Goal orientation refers to how a person behaves towards developing or validating their capability to achieve or perform a task. Goal orientation theory explores student engagement and achievement motivation from a social cognitive perspective (Cury et al., 2006). Depending on the type of goals a student seeks, there are two types of outcomes they want to achieve in school: mastery goals and performance goals. In contrast, mastery goals refer to the desire to gain new skills, knowledge, and understanding, whereas performance goals refer to the desire to appear competent among peers (Ames & Archer, 1988). According to Ames and Archer (1988), motivating students to master a skill or understand a concept means they feel successful after reaching their mastery goals. Motivation plays a crucial role in the learning process. Students can become motivated learners by the behavior and statements of their teachers (Deci & Ryan, 1985; Dweck, 1998; Lepper & Hodell, 1989; Spaulding, 1992). Based on their findings in conjunction with other research on goal orientation, Ames and Archer (1988) asserted performance goals can cause students to underestimate their abilities leading to a negative self-perception. Setting mastery goals and helping students set realistic goals can benefit students' knowledge acquisition.

Self-determination theory suggests people can self-determine when their needs for relatedness, competence, and autonomy are fulfilled (Ryan & Deci, 2000). Relatedness is feeling cared for and connected to others. Relatedness gives a sense of belonging and value to oneself.

Competence refers to mastery and effectiveness in one's field of practice and is intrinsic to wellness. Individuals who feel autonomous feel they have a choice and are willing to endorse their behavior. In self-determination theory, Ryan and Deci (2000) identified two types of motivation: intrinsic and extrinsic. Intrinsic motivation refers to curiosity, overcoming challenges, exercising, learning knowledge and skills, and contributing to cognitive and social development. On the other hand, social pressures can also drive extrinsic motivation to do things and activities that are not interesting (Ryan & Deci, 2000). As a result, personalizing a student's learning experience supports the psychological needs of the student as well as their intrinsic motivation (Alamri et al., 2020).

A flow state is when one is deeply immersed in an intrinsically enjoyable activity (Csikszentmihalyi, 1990). Flow theory states challenges and the skills necessary to meet them are symbiotically linked. Flow is a state in which one is neither underdeveloped nor overmatched with the skillset required to accomplish a task (Shernoff et al., 2003). As part of the flow process, three prerequisites are needed: concentration, interest, and enjoyment (Csikszentmihalyi, 1997). For flow to occur, the following criteria must be present:

- Setting clear goals is essential.
- Challenges must be tailored to the students' abilities.
- Continual feedback must be provided.

There is an essential relationship between challenge and skill level because a mismatch between the two can lead to apathy or anxiety (Csikszentmihalyi, 1990). An individual in this state of flow feels like their performance is successful and pleasurable, even though no other targets are met (Nakamura & Csikszentmihalyi, 2002). Students who are intellectually engaged in

meaningful inquiry processes that allow them to work on real-life problems beyond the classroom are more likely to be involved in the school than students with usual classroom instruction (Newmann et al., 1992). The Summit Learning (n.d.c) personalized learning platform allows students to work at their own pace and get immediate feedback to get real time data. Students can pick and choose what assignment they want to work on which allows for autonomy. Clear goals are defined with mentor teachers to give direction.

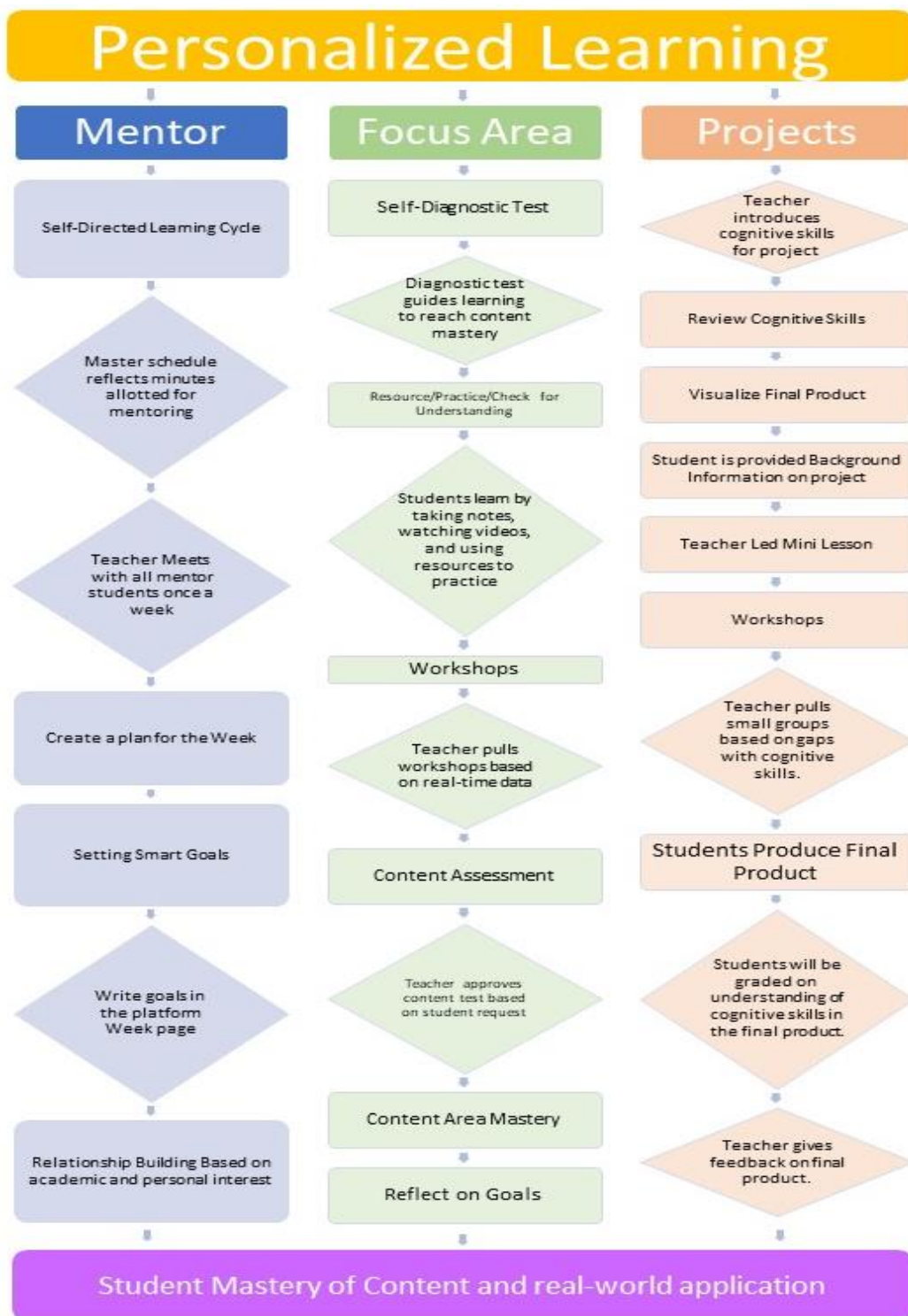
The System

The organization's problem requires analysis of multiple systemic forces, further clarified by a process map (see Figure 2). The personalized learning platform is the central hub for student learning activities, incorporating elements like mentoring, focus areas, and PBL (Summit Learning, n.d.c). At the platform's core is mentoring, which guides students in discussing their academic progress and setting weekly goals. Allocating time for mentoring through the master schedule is essential for personalized learning. To support the framework for mentoring, the mentorship process uses SMART goals to align objectives with achievable targets (Summit Learning, n.d.a, n.d.b).

The platform also provides a self-diagnostic focus area tool to guide content mastery, offering various resources and assessment tools like notes, video lessons, practice tests, workshops, and small group instruction (Summit Learning, n.d.a). Real-time data analytics and targeted interventions ensure struggling students receive the necessary support to remain on track with their learning goals.

Figure 2

Personalized Learning Process Map



PBL is also crucial and represents a significant portion of the platform, requiring students to apply cognitive skills to interdisciplinary and real-world contexts (PBLWorks, 2023). Mini-lessons, workshops, and small group instruction are used to develop critical thinking, collaboration, and communication skills required for future success. The platform strongly emphasizes cognitive skills to build a learning culture that values content mastery and competency development (Summit Learning, n.d.a).

Despite the platform's advantages (Summit Learning, n.d.a), external forces can play a role in student and parent engagement. Community attitudes should be considered alongside broader educational policies and funding priorities to ensure optimal resources and support.

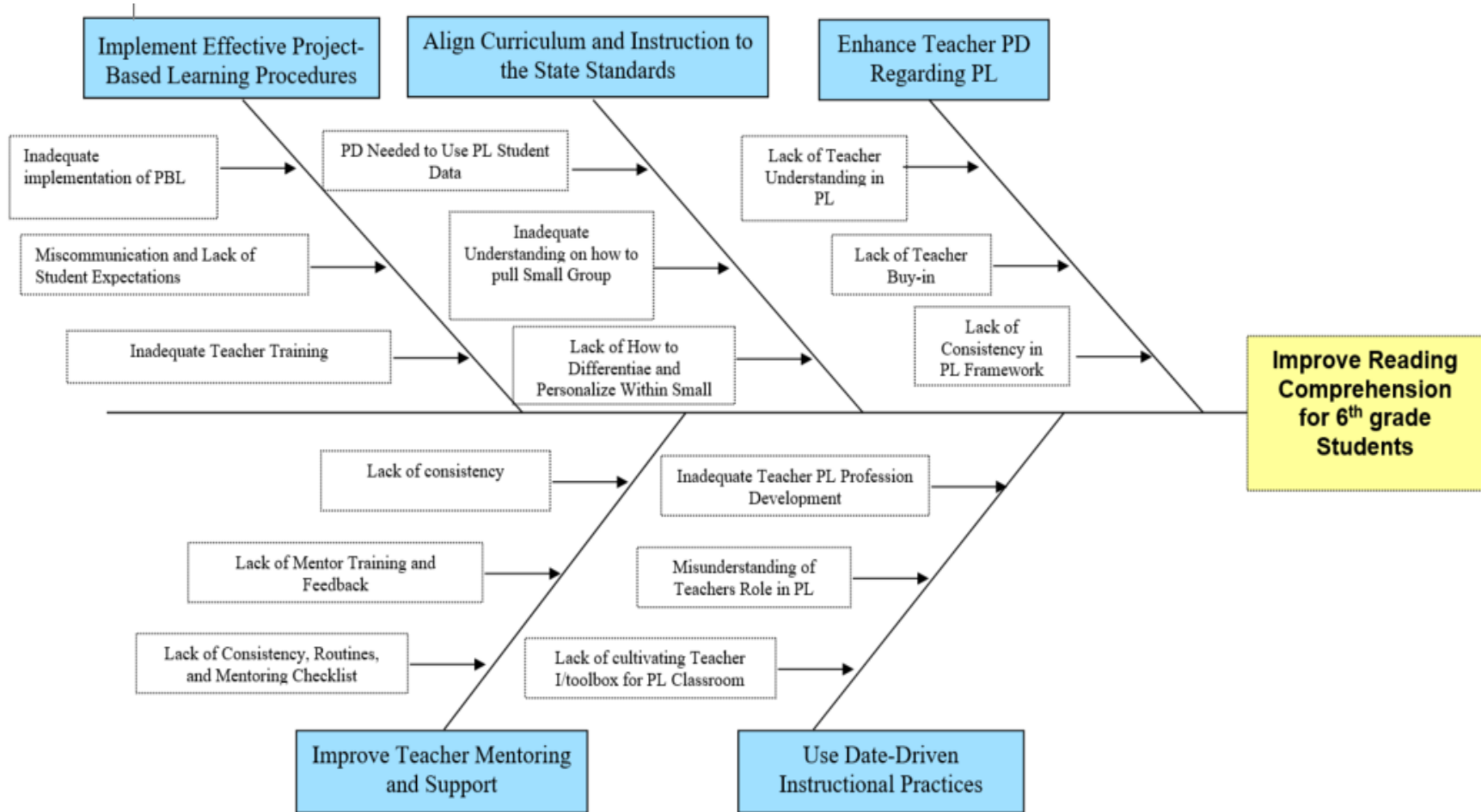
Root Cause Analysis

Improvement science is a systematic approach to analyzing and solving complex organizational problems (Regional Educational Laboratory Program, 2017). The focus is on continuous improvement using data-driven decision-making and stakeholder collaboration rather than one-off fixes. Improvement science utilizes a structured problem-solving process, which includes defining the problem, gathering data, identifying root causes, testing interventions, and measuring outcomes.

To better understand the root causes of poor reading comprehension among students at a school in Texas, I created a Fishbone diagram (see Figure 3). The Fishbone diagram is a visual tool used in improvement science to identify the underlying causes of a problem. It is also known as an Ishikawa diagram or a cause-and-effect diagram. The diagram consists of a horizontal line representing the problem with diagonal lines extending from it, representing possible causes.

Figure 3

Improve Reading Fishbone



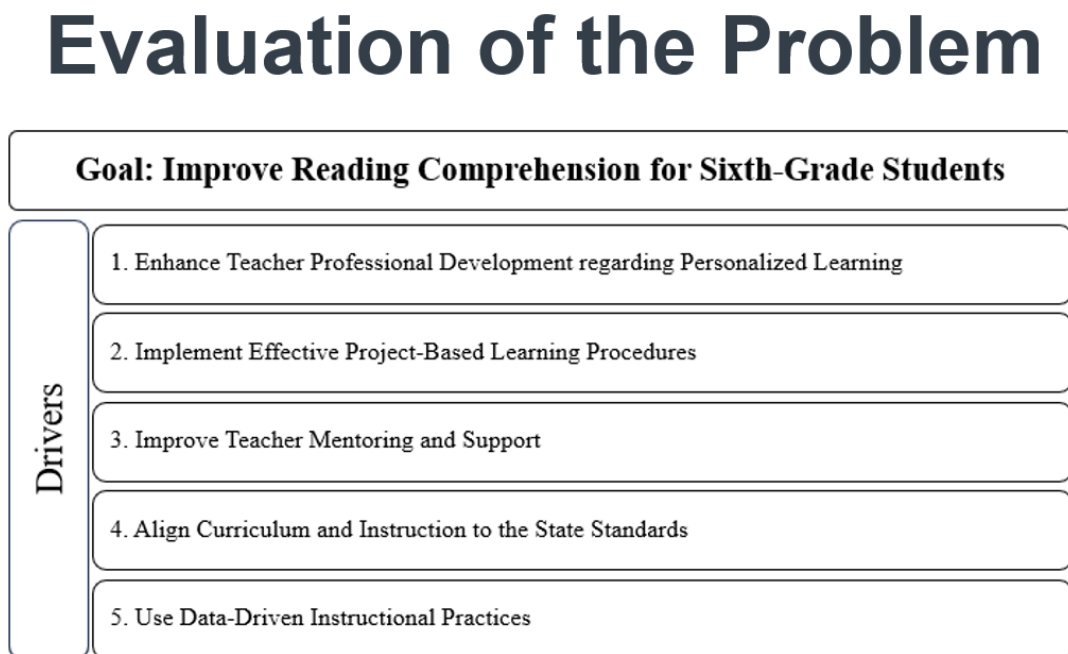
Each diagonal line is further divided into smaller lines that represent sub-causes. Based on data collection, I identified several root causes of poor reading comprehension at a school in Texas. These include inadequate teacher professional development regarding personalized learning, implementation of PBL procedures, and ineffective teacher mentoring and support.

First, inadequate teacher professional development regarding personalized learning is a root cause since many teachers at the school need help to understand how to implement the approach effectively. This led to clarity and consistency in personalized learning policies and practices, resulting in suboptimal outcomes.

Second, inadequate implementation of PBL procedures is another root cause since many teachers must follow proper PBL protocols, leading to miscommunication and unclear student expectations. Third, ineffective teacher mentoring and support undermines student achievement since teachers need more consistent and structured mentoring routines, checklists, and feedback to develop their skills and knowledge.

A driver diagram is a tool in Improvement Science to represent a theory of change visually (YouthTruth, 2020). It is a high-level plan that outlines the critical drivers necessary to accomplish a specific goal. In the context of a school in Texas's effort to improve reading comprehension, a driver diagram goal and drivers are shown in Figure 4.

The driver diagram, developed by the Network Improvement Communities (NICs), offers a comprehensive framework for grasping the intricate connections between the drivers required to enhance reading comprehension for all students. One Texas school adopted this strategic approach to tackle the complex issue of poor reading comprehension.

Figure 4*Driver Diagram*

The NICs employed a systematic methodology, employing fishbone diagrams to meticulously analyze the internal and external systemic forces impacting student achievement. Utilizing these tools and approaches, the school successfully devised practical solutions targeting the underlying causes, prioritizing key drivers needing training and support. The driver diagram, acting as a visual representation of the driver hierarchy, facilitated a focused and well-coordinated implementation of interventions. The NICs' development and application of the driver diagram played an integral role in achieving the school's objective of enhancing reading comprehension for all students, effectively showcasing the value and efficacy of this approach in addressing multifaceted educational challenges.

Each of these drivers is necessary to achieve the goal of improving reading comprehension for all students. The driver diagram provides a high-level framework for understanding how these drivers are interconnected and work together to influence the outcome. The fishbone diagram (see Figure 3) structured methodology and tools are for analyzing complex problems such as poor reading comprehension at a school in Texas. Using these tools and approaches, a school in Texas can develop practical solutions that address internal and external systemic forces and improve student achievement.

Positionality

As a researcher in the field of education, I am keenly aware of the critical role that positionality plays in shaping the research process. In striving to tackle the Problem of Practice of reading comprehension at the middle and intermediate grade levels, I believe it is vital to acknowledge and examine my positionality to understand better how my identity, experiences, values, and beliefs may shape my approach to this critical issue.

Regarding my identity as an Asian American male, I recognize my cultural background may impact how I approach this work. For example, my Asian heritage strongly emphasizes education and academic achievement, which may influence my perspectives on the importance of reading comprehension as a foundation for success in all subjects. Additionally, my gender and experiences as a male educator may impact my leadership style and approach to working with students, staff, and colleagues.

Beyond my identity, my professional experiences as both an assistant principal and principal have significantly shaped my perspective on the issue of reading comprehension. Over my 16 years in school leadership roles, I have seen firsthand the struggles many students face

when reading and comprehending challenging texts. I have also witnessed strong reading skills' impact on academic success and overall achievement. As such, I am deeply committed to addressing this problem and finding practical solutions to help students at all levels succeed.

Finally, my formal position as a school principal may impact the research process in several ways. As a school leader, I am responsible for creating a culture of academic excellence and student achievement, and my research on reading comprehension is one way I can help fulfill that responsibility. Additionally, my position within the school system gives me access to valuable resources, such as expert staff, data, and funding, that can support the research process and help ensure its success.

In all these ways, my positionality is essential in shaping my approach to the Problem of Practice of reading comprehension. By acknowledging and examining my own identity, experiences, and position within the educational system, I aim to approach this research with a greater sense of curiosity, empathy, and rigor and ultimately help students succeed in achieving their full potential.

Chapter 2

Literature Review

Personalized learning is an innovative educational approach that tailors the learning experience to meet every student's unique needs, preferences, and capabilities (Basham et al., 2016; Shemshack & Spector, 2020). This learner-centric strategy delivers a more effective and engaging learning environment, promoting the development of critical skills essential to succeed in today's world. By fostering self-paced discovery and autonomy in knowledge acquisition, personalized learning encourages students to take ownership of their learning process (Shemshack & Spector, 2020). Learners can expand their knowledge and understanding by providing individually personalized approaches that align with each student's objectives.

Including technology in personalized learning environments presents promising opportunities to promote bespoke learning experiences catering to each learner's needs. Digital learning tools offer students increased access to information, improved collaboration, and efficient data management (Shemshack & Spector, 2020). By tailoring learning pathways, formative and summative assessments, and adaptive testing strategies, digital learning environments help educators achieve desired learning objectives. Spector (2014) argues personalized digital learning environments present opportunities to acquire customized learning experiences that cater to the learner's needs. Integrating technology into personalized learning environments enables teachers to provide practical, efficient, and engaging instructional experiences.

Personalized learning is a significant technological advancement that has the potential to revolutionize the education sector (Daruwala et al., 2020; Gallagher, 2014). To understand

personalized learning better, educators can explore its various aspects, such as personalized learning policy, small-group instruction within the classroom, PBL, mentors for every student, teachers' role in personalized learning, a framework for comprehensive student development, and habits of success. Educators can maximize the benefits of personalized learning by incorporating such topics into personalized learning environments. Personalized learning, coupled with the integration framework of various instructional strategies and social and emotional components of the program, offers a promising approach to meeting the unique needs of every learner (Lee et al., 2018).

In light of the inadequacy of traditional approaches to education in our rapidly changing world, educators and scholars seek to create learning activities tailored to each student's unique needs, strengths, and interests (Lee et al., 2018). Technological advancements have nurtured the development of personalized learning, a solution that has shown great potential in augmenting students' learning outcomes (Shemshack & Spector, 2020). Hence, an in-depth inquiry into personalized learning is essential to harness its many advantages and amplify the impact of education.

Personalized Learning

Since the dawn of time, it has been customary for educators to differentiate and customize instruction to meet the needs of each student. Personalized learning is typically defined as using technology and digital tools to enhance student's learning at various levels (Subban, 2006). Traditionally, education has been a one-size-fits-all approach, and the educational experience is the same for all students who simultaneously progress through the same curriculum. Students should have the opportunity to be involved in the design of their

learning process, which encourages educators to reverse engineer their approaches to meet the needs of their students (Patrick et al., 2013). According to Bingham et al. (2016), personalized learning consists of “a technology-based instructional model designed to tailor instruction to student needs, strengths, and interests to promote mastery of skills and content” (p. 455).

Personalized instruction and support are most likely to be effective, efficient, and engaging for students with varying prior knowledge levels, backgrounds, and interests (Spector, 2014). Per the U.S. Department of Education, Office of Elementary and Secondary Education (2013), personalized learning enables students to learn and master skills at their own pace. Through personalized learning, students can build on their strengths, needs, motivations, and goals to reach their educational goals. In other words, it allows students to customize their education to fit their personal needs. Even so, educators and policymakers in the United States are attracted by its individualized, targeted, just-in-time learning opportunities (Blackboard, 2016). Learning objectives, instructional approaches, and content sequencing may all be determined by the learner’s needs. As a result, learners are engaged in meaningful, relevant, and self-directed learning activities that are relevant to them. Personalized learning allows educators to adapt instruction in real-time to meet learners’ needs based on frequent informal assessments of students’ progress, needs, motivations, and goals (Pane et al., 2015; U.S. Department of Education, Office of Educational Technology, 2017). K–12 education has only recently embraced personalized learning. Research by RAND revealed personalized learning had improved student reading performance. Study participants showed significant gains in reading achievement due to the study. Within 2 years, students developed to surpass national norms for their age (Pane et al., 2017). Personalized learning can be a practical method of increasing

motivation, engagement, and understanding of a course (Pontual Falcão et al., 2018).

Instructional methods are connected to interests, motivation, and aspirations in a personalized learning environment. In the past, schools have allocated the same amount of instructional time to every student, leaving struggling students at a significant academic disadvantage, especially if they have not mastered the learning outcome (Lee et al., 2018).

Throughout the country, there is a growing trend toward personalized learning that is taking place. The idea of personalized learning can be traced back to the 19th century. In 1889, Pueblo Colorado School District implemented a program where students would learn at their own pace to succeed in the classroom (C. Brown, 2019). In education, technology has been used to personalize instruction for a long time. Skinner (1958) demonstrated how “teaching machines” can be used to encourage improved learner freedom by allowing pupils to work freely and at their own pace. During the 1960s, Fred Keller developed the personal systems of instruction for use in the Brazilian classroom (C. Brown, 2019). Through this method, students were in the driver seat in their own learning, and the teachers become the facilitators. Teachers can pull students into small groups to close the learning gap by collecting real-time data through formative assessment. The coursework was repeated until a student demonstrated mastery of that skill whenever they failed a unit (C. Brown, 2019). A vision was formed for how technology may support the classroom learning environment. According to Basham et al. (2016), computer-assisted instruction has introduced a paradigm shift in learning, enabling customized education through digital platforms. This is in stark contrast to teacher-dominated classrooms. With modern computer-assisted instruction, students are directed to different pathways based on their unique performance. This personalized approach to learning makes the educational experience

more engrossing and amplifies its effectiveness. In these personalized learning systems, essentially updated versions of computer-assisted instruction, students are often directed along various learning pathways based on their performance (Basham et al., 2016).

Personalized learning allows students to experience the classroom differently and work at their own pace, which is a shift from the traditional school setting (Pane et al., 2015).

Nevertheless, personalized learning is more than a platform; it allows students to have one-to-one mentoring, self-paced learning, and teachers who serve as facilitators of the learning. This approach consists of a project-based curriculum of all core subjects in which students learn at their own pace (Summit Learning, n.d.c). Personalized learning tailors instruction to the needs of each student. The personalized learning platform offers a variety of different resources to meet each child's learning identity. Attempts to personalize learning need to be supported by system-level scaffolds and tools that are capable of fostering self-directed learning (Dabbagh & Kitsantas, 2005). The teacher's role flips from a traditional presenter of information to a guide-on-the-side to help students take ownership of their learning (Pane et al., 2015).

Pane et al. (2015) found personalized learning significantly improved math and reading results during the past 2 years compared to almost identical comparison groups from comparable schools. According to research, students with lower starting achievement levels showed significant growth, particularly in mathematics. Statistically positive results were found in most of the 62 charter schools. Most of the schools included in the implementation analysis were urban and serve a large proportion of minorities among their students. According to school-level data, 80% of students are eligible for free or reduced-price lunches, and 75% are students of color. Pane et al.'s data indicated students with low reading levels had growth. Three elements

had the best results from the personalized learning model: flexible student grouping, variations of learning spaces created throughout the school, and students utilizing data to collaborate about their progress (Pane et al., 2015). With the variety of data that personalized learning provides, teachers could use data to differentiate, personalize, and tailor instruction to meet student needs.

Personalized Learning Policy

Educational policy experts have been relying more heavily on accountability systems in recent years to measure the success of school improvement plans (Daruwala et al., 2020). Standardized assessments and proficiency benchmarks serve as data points that can be used to assess an individual school's outcomes, creating an institutional logic rooted in accountability. However, these traditional accountability metrics may no longer be appropriate for gauging the effectiveness of an educational system in today's fast-paced world. New research into organizational theory has revealed the importance of personalized learning as a method of improving student outcomes, with districts and schools increasingly adopting relative measures and cognitive development rather than absolute levels to measure progress. According to Daruwala et al. (2020), the main discrepancy between the traditional accountability environment and this new personalized approach is the conflicting expectations encountered when trying to unite homogeneous performance indicators with heterogeneous interpretations of student growth.

Small-Group Instruction Within the Classroom

By utilizing the personalized learning platform, small group instruction has proven to be an efficient tool for closing learning gaps. According to Burns et al. (2020), effective implementation of reading intervention within these groups can result in marked improvement. This finding is corroborated by Hall and Burns (2018), who also noted this type of instructional

setting allows students with literacy issues to receive tailored educational services which are more likely to meet their individual needs. Academic research has revealed small-group instruction is viable for young students with reading challenges (Burns et al., 2020; Hall & Burns, 2018). Hall and Burns (2018) suggest keeping the group to three pupils during a simultaneous whole-class activity to maximize its efficacy. This notion was further supported through an examination of 499 second and third-grade children from six urban schools in which results showed positive impacts on students' reading proficiency (Burns et al., 2020). Small-group instruction has been established as a cornerstone of closing the gap in academic reading attainments. By engaging students on an individual level, educators can craft personalized interventions that foster improved literacy and comprehension (Burns et al., 2020; Hall & Burns, 2018). This approach provides data-driven feedback for targeting needs with greater accuracy—essential factors when working towards attaining literacy goals amongst learners.

It is essential to consider students' unique developmental and individual characteristics when teaching them (Case, 1978; Chen et al., 1998; Gardner, 1991, 2011). To optimize learning during small-group instruction, teachers must be aware of the level of understanding possessed by each student (Bransford, 1979; National Research Council, 1999), as well as carefully integrate any new information with their prior knowledge. Although prior knowledge can support comprehension, it may also potentially hinder acquisition if not managed correctly. As learners sharpen their skills to identify and address discrepancies, they must also be prepared to adjust former understandings as needed (Voss & Carretero, 1994; Vosniadou & Brewer, 1992). To ensure successful small-group instruction experiences, teachers must be aware of each

student's level of understanding combined with any relevant data that could bolster the learning process.

Project-Based Learning

Another aspect of a personalized learning curriculum is students working together in reading, science, social studies, and math lessons through projects (Summit Learning, n.d.a). It is essential that learners participate actively and constructively for learning to take place (Elmore et al., 1996; Piaget, 1978; Scardamalia & Bereiter, 1991). Socialization is a critical component of learning effectively, and participation in the school's social life is also essential (Collins et al., 1987; Rogoff, 1990; Vygotsky, 1978). This contrasts with traditional schools' dissemination and delivery of academic content, which has not changed much in how they engage students from what worked in the past, such as grading, learning space, and classroom structure. Students tended to drop out of school because they are disconnected and subsequently lost interest in school (Cervantes et al., 2015). However, Barron and Darling-Hammond (2008) found students who do not perform well in traditional educational learning, such as direct teaching, often thrive in a project-based instructional model. PBL allows students to gain the necessary academic skills and content knowledge to perform better on a complex task (Mergendoller, 2016).

Whether it is adults or children, learning takes place most effectively when they engage in a real-life activity with a culturally relevant context that is useful to them in their daily lives (J. S. Brown et al., 1989; Heath, 1983). It is the role of the teacher to provide students with the necessary tools to learn how to transfer effectively so they will be successful in their learning. Putting lessons to use in real-life situations makes them more meaningful (Bereiter, 1997; Bruer,

1994; National Research Council, 1999). Penuel et al. (2016) explained PBL aims to captivate student interests by creating real-world challenges that require complex and multilevel thinking to construct and organize knowledge. Student learning is improved when teachers emphasize understanding over memorizing material. In contrast to memorizing isolated facts and procedures, learning is better when the material is based on general principles (Halpern, 1992; Perkins, 1995; Resnick & Klopfer, 1989). Barron and Darling-Hammond (2008) researched students experience a higher learning level by applying content knowledge to solve complex real-world problems. “Within the tenets of PBL, students pursue solutions to problems by asking and refining questions, debating ideas, making predictions, designing plans, collecting and analyzing data, drawing conclusions, communicating ideas, asking new questions, and creating artifacts” (Cervantes et al., 2015, p. 53). Not only does PBL allow students to learn at high levels, but it also opens the doors for learning to extend beyond the classroom walls to real-life situations (Barron & Darling-Hammond, 2008). PBL allows students to work in small groups to learn through investigating problems and building an artifact to demonstrate knowledge (Barron & Darling-Hammond, 2008). By adopting a PBL model, students are actively reading through several books, journals, and articles to find clues to solve their investigation. For students to develop expertise, the learning process is complex, cannot be rushed, and requires a great deal of practice and attention (Bransford, 1979; Chase & Simon, 1973; Coles, 1970). The PBL approach allows students to hone in on understanding a written text and writing to learn, contributing to higher reading comprehension (Shiraz & Larsari, 2014).

Cervantes et al. (2015) studied 87 seventh-grade and 84 eighth-grade students in a school that implemented PBL. The data collected was STAAR mathematics and reading achievement

scores. The outcome data indicated the PBL student group achieved a higher achievement level in reading and math than their counterparts who were not in project-based classes (Cervantes et al., 2015).

Mentors for Every Student

Mentorship is an invaluable asset to young people's lives; it provides academic and non-academic support, a more personal connection with their teachers, and a feeling of importance (Booker & Brevard, 2017). Yet despite its worth, one in three kids grows up without someone they can rely on for guidance or hold them accountable academically (Summit Learning, n.d.b). Bruce and Bridgeland (2014) noted those who have weekly meetings with mentors are 52% less likely to miss school than other students lacking such connections—showing just how powerful mentoring relationships can be in improving attendance rates. At-risk youth often struggle to find successful mentors in their lives, making formal mentoring programs a feasible solution. Bruce and Bridgeland found students with mentor support were more likely to attend college and achieve greater academic success than those who lacked such provision. Mentors play an essential role in encouraging the learning journey of at-risk young people—this is particularly challenging since providing positive feedback without jeopardizing self-esteem is a delicate balance! Experienced mentors understand that providing constructive comments can be a delicate balancing act between being direct and gentle. It is crucial to take the time before offering feedback so as not to overwhelm or discourage mentees but rather provide meaningful remarks coupled with praise, allowing them an opportunity for growth (G. L. Cohen et al., 1999). G. L. Cohen et al. (1999) emphasize the importance of providing critical feedback across racial lines.

A crucial part of this process is for mentors to combine the invocation of high standards with an assurance that the student can reach those standards. Through this two-pronged approach, mentors can foster an environment where students are encouraged to take risks and challenge themselves. Giving constructive feedback on student performance can be arduous as a mentor. While it is necessary to point out shortcomings and suggest improvements, this must be done in such a way that does not crush the learner's confidence or quench their determination to succeed. Striking the perfect balance between gentle criticism and encouragement requires excellent skill from any educator (G. L. Cohen et al., 1999).

Critiquing with care can make all the difference for traditionally underrepresented mentees. As an intelligent mentor, it is essential to simultaneously demonstrate high expectations of your students and confidence in their ability to live up to them. In other words, when providing critical feedback, the wise mentor invokes high standards while at the same time conveying their beliefs in the student's potential to meet them (Cohen et al., 1999). According to Isik et al. (2018), this method results in higher academic achievement and improved motivation among students of all backgrounds, including minority groups. Usher and Kober (2012) found a significant link between increased motivation to learn and outstanding academic performance, better comprehension of course concepts, greater satisfaction with school, increased self-esteem, successful social adjustment, and higher academic program completion rates. Encouraging motivation in learners can have several advantages that extend beyond academic grades. Additionally, empirical research supports the implementation of motivation-based strategies in classrooms. Boosting learners' intrinsic motivation through fulfilling their basic psychological needs (such as autonomy, competence, and relatedness) can

foster long-term engagement with education and academic success. Motivation and self-regulation positively correlate, implying that motivated learners can regulate their learning processes effectively. Ultimately, fostering motivation in learners is critical to their overall development, improving their chances of long-term academic and social success. The results indicate the importance of combining high expectations with assurance to create a learning environment that encourages success for all students, regardless of their race. By doing so, mentors can equip their students with the necessary tools to achieve academic excellence and cultivate a sense of self-efficacy and confidence in their abilities. Mentoring has a positive ripple effect on students' educational pathways (Summit Learning, n.d.b). Students who have a mentor will have a systematic safety net to catch them early if they fall off-track. Having a mentor gives early intervention for students who struggle with reading and math. Students who have a committed mentor can have crucial conversations about academic progress and intervention. Mentors and students set goals that help guide academic trajectory (Bruce & Bridgeland, 2014). For learners to self-regulate and reflect, they must plan and monitor their learning, establish their own learning goals, and correct errors as they occur (Boekaerts et al., 2000; A. L. Brown, 1975; Marton & Booth, 1997). Mentors allow students to have a safe space for students to speak freely about their learning data (Pane et al., 2015).

Teacher's Role in Personalized Learning

With the rise of personalized learning in educational settings, teachers play a unique role as “guide-on-the side” (Stanton, 2019, para. 1). To ensure optimal engagement and development on behalf of each student, individualized sequencing must be employed based on assessment data and observed behaviors. By tracking progress through adaptive software programs that adjust

difficulty according to mastery level, students receive tailored instruction which promotes self-directed exploration within an empowered learning environment (Kliger & Pfeiffer, 2011). To personalize education in the classroom, teachers must adapt their strategies and instructional methods based on the learning environment. While some research has been conducted regarding instructors' use of technology, further exploration is needed to evaluate its impact on teaching practices (Amro & Borup, 2019; Klobas & McGill, 2010). In personalized learning, teachers play an essential role in getting students to maximize the potential of technology and software.

Research identified five typical teacher roles in such settings: (a) orienting learners to expectations related to the digital resource, (b) resolving any technical issues, (c) encouraging full involvement with said tech/software, (d) observing student behavior within it, and (e) offering additional instruction on a one-on-one or small group basis (Amro & Borup, 2019). Teachers are critical in orienting students to personalized learning software or technology, equipping them with the knowledge and skills needed for successful navigation. This entails demonstrating features that can differ from one platform to another; guiding learners through accessing course materials, understanding how data tracking operates within it; providing instruction on submitting assignments efficiently; plus, clarifying expectations around tasks while creating meaningful deadlines (Amro & Borup, 2019).

Lowes and Lin (2015) argued that students who learn from a personalized learning format often need more support than those in a traditional classroom setting. These students must also become familiar with the learning format to understand a given subject. The authors used locus of control theory to explain how giving students control over their learning can help them become successful online learners and better adjust to this environment (Lowes & Lin, 2015).

Locus of control states individuals who believe they control their fate are more likely to succeed than those who rely on external factors such as luck or chance. Therefore, by giving students a greater sense of autonomy concerning the material they study and how they approach it, instructors can help them become successful in an online or blended course setting. Furthermore, providing suggestions on effective study strategies, such as breaking down tasks into smaller goals and learning from mistakes, can further support student success. Ultimately, Lowes and Lin's research showed that having a more significant locus of control increases feelings of self-efficacy in students within an online or blended course environment.

Teachers must ensure their classrooms run smoothly and remain free of distractions. They must possess a strong understanding of the software, technology, and systems utilized to offer rapid troubleshooting when errors or installation problems arise during personalized learning activities—enabling students to stay on track with lessons without disruption (Amro & Borup, 2019). Graham et al. (2019) conducted a study to develop a model and instrument to evaluate the readiness of K–12 teachers for blended teaching. The authors identified technical literacy as a critical factor in being prepared to teach in this format (Graham et al., 2019). Their research aimed to look at how specific characteristics such as teacher knowledge, attitude, experience, and skills impacted the idea of blended teaching readiness. To gain more insight into the topic, Graham et al. developed an instrument that was made up of two parts: an item pool and scales derived from items that represented fundamental competencies related to blended teaching readiness. Their study showed technical literacy played a prominent role in the overall blended teaching readiness level among K–12 teachers.

Teachers must develop creative strategies to inspire students as they navigate personalized learning. From incentivizing satisfactory completion of tasks to promoting conversation among peers working collaboratively, teachers must keep learners captivated and excited about the material presented in this new instruction (Amro & Borup, 2019). Furthermore, educators should consider opportunities for differentiated teaching within activities; ensuring those who need extra support or more complex assignments get appropriate accommodations is essential for successful personalized learning outcomes (Amro & Borup, 2019).

To keep students engaged and motivated, it is important to have the blended teachers work closely with them daily (Amro & Borup, 2019). This type of close engagement is essential for students to make the most out of their learning experience and to reach their maximum potential in their academic pursuits. When students are adequately motivated and can see tangible results from their hard work, it will ensure they remain encouraged and enthusiastic about learning. Moreover, blended teachers should also consider the unique needs of each student and should be prepared to adjust their instruction accordingly to maximize student success. Overall, providing tailored instruction and ensuring frequent contact between teacher and student through a blended teaching model can significantly boost student motivation and foster a positive learning environment (Amro & Borup, 2019).

Assessing students' data is a crucial part of teaching, enabling educators to address areas in need before they become obstacles and measure progress from start to finish. Through regular individual or group interactions during remote learning instruction, teachers ensure that all students follow the curriculum while adapting well to personalized education systems (Amro & Borup, 2019). In Chubb (2012) and Pfeiffer et al. (2012), teachers used technology to combine

assessment data with instruction to provide more personalized instruction to small groups of students. In their research, they found that while this may sound like a beneficial solution, it could be difficult for teachers to effectively monitor each student's learning progress and use this data to plan effective instruction that would target the learning gap of each student (Chubb, 2012; Pfeiffer et al., 2012). Such a task requires an immense amount of time, effort, and energy that can be difficult for teachers who are already tasked with many responsibilities. Despite this difficulty, it is possible to create an environment where technology is used successfully to provide personalized instruction tailored to each student's needs. For example, instructors could utilize video clips to introduce new material or reinforce topics already covered during lectures; these clips could also help guide students through complex concepts that may have been difficult for them to understand otherwise (Amro & Borup, 2019). Additionally, teachers can use assessment data collected from online quizzes and other activities to better gauge the comprehension level among their students and thus tailor their instruction accordingly. By combining traditional approaches with modern technology, educators can help ensure that all their students receive proper attention regardless of their levels of understanding.

A Framework for Comprehensive Student Development

Building Blocks for Learning: A Framework for Comprehensive Student Development provides valuable insight into how social emotional learning can benefit students if implemented effectively in schools—academically, emotionally, and socially (Stafford-Brizard, 2016a). Leaders must recognize the importance of social-emotional learning and strive towards creating comprehensive educational models, ultimately resulting in higher student achievement levels throughout their school districts.

Academic tenacity in the classroom and the advancement in closing the gap rely on cognitive and social-emotional skills (Stafford-Brizard, 2016b). Without these skills, students often struggle with behavior issues, falling behind in core classes, or mental stability (Flores, 2011). This is why developing social-emotional skills can be crucial in promoting academic success. Research has shown that when students feel safe in their classrooms, they are far more likely to engage with their peers and work to improve academic performance (Greene & Ablon, 2005). Additionally, by establishing strong social-emotional foundations for learning, educators can create an environment where students can take risks and grow academically. Ultimately, building social-emotional skills not only helps to support academic success but also creates a safe space for students to learn and grow holistically as individuals.

Stafford-Brizard (2016b) demonstrated how social and emotional skills could be incorporated into a school's curriculum to increase student progress. The author argued traditional schools which focus solely on academics are likely to see less progress than those that recognize the importance of social and emotional development. According to Stafford-Brizard et al. (2017), it is essential for schools to understand the relationship between the mind and science to bridge the gap between theoretical knowledge and practical applications.

Stafford-Brizard (2016b) proposed teachers should design curricula with an emphasis on social and emotional learning, as well as academic knowledge. Suggesting teaching cognitive skills about decision-making and problem-solving and social and emotional competencies such as communication and collaboration will provide students with the best possible outcomes. Moreover, incorporating social and emotional learning activities into the classroom setting can help create an environment of collaboration, respect, empathy, confidence, and self-awareness.

Furthermore, Stafford-Brizard (2016b) noted certain components must be present for this type of educational model to be successful. These include an effective assessment system focusing on students' growth; a commitment to standards that promote positive youth development; effective intervention strategies tailored to specific student needs; professional support services provided by school counselors; quality instruction from highly trained teachers; engaging learning activities; parent involvement; access to appropriate technology; community engagement opportunities; engaging afterschool programs; a safe physical environment; sufficient resources for all stakeholders in education including funds for supplies or materials needed by students or staff members. All these elements must be considered when developing a comprehensive educational program focused on social and emotional learning.

Finally, Stafford-Brizard (2016b) emphasized that leadership is required for this type of approach to work successfully within schools. The leader should have the ability to coordinate different stakeholders from various areas, including administrators, teachers, parents, community leaders, business partners, and more, to ensure high-quality implementation across all levels of education delivery—from policy formation at the district level down through day-to-day classroom practices (Stafford-Brizard et al., 2017).

Habits of Success

Part of the personalized learning model is incorporating the Building Blocks for the Learning framework (Habits of Success) into the fabric of school culture and lessons (Stafford-Brizard, 2016a). This framework was established by Turnaround for Children, a nonprofit organization that seeks to improve education using evidence-based research and developmentally informed approaches (Stafford-Brizard, 2016a). The Habits of Success are a set of skills and

mindsets grounded in developmental science to help students develop college and career readiness skills (Yeager, 2018). By providing students with evidence-based tools, they can better prepare themselves for academic achievement in all areas (Stafford-Brizard, 2016a).

The Habits of Success focuses on developing learning strategies that foster understanding, reasoning, memorization, and problem-solving skills (Mayer, 1987; Palinscar & Brown, 1984; White & Frederiksen, 1998; Stafford-Brizard, 2016a). These strategies include self-regulation techniques such as goal setting and self-monitoring in order to track progress toward goals; collaboration techniques such as communication skills related to group work; critical thinking techniques such as analysis and synthesis of various types of data; creativity techniques such as brainstorming ideas or imagining new solutions to problems; problem-solving techniques such as breaking down significant problems into smaller parts in order to solve them effectively (White & Frederiksen, 1998); and open-mindedness which encourages exploration beyond existing boundaries or norms (Mayer, 1987). Moreover, successfully implementing the Habits of Success requires teachers to provide a supportive environment that allows learners to make mistakes without fear or judgment so they can effectively adopt necessary strategies (Palinscar & Brown, 1984).

Incorporating the Habits of Success framework into the fabric of school culture will require teachers to be equipped with the knowledge and methods necessary to use this system effectively (Mayer, 1987; Palinscar & Brown, 1984; White & Frederiksen, 1998; Stafford-Brizard, 2016a). Additionally, parents can play an essential role by reinforcing positive strategies their children use at home. Other stakeholders involved in this process must recognize the importance of providing resources for schools that support personalized learning models

designed around implementing this framework. All these pieces must come together to achieve lasting results where students can better understand concepts taught in class and apply them later.

Personalized learning models are increasingly being adopted across different educational institutions due to their potential impact on academic performance (Alamri et al., 2020; Pane et al., 2015, 2017). The Habits of Success framework provides a solid foundation upon which these models can be built as it gives students evidence-based tools that enable them to gain college and career readiness skills (Mayer, 1987; Palinscar & Brown, 1984; White & Frederiksen, 1998; Stafford-Brizard, 2016a). Although there is no one-size-fits-all solution since each student has unique needs, this framework allows educators to customize instruction according to specific challenges learners face while ensuring its effectiveness.

Limitations

This study encountered several limitations that require addressing. Firstly, the data collection process was constrained to a single site, raising concerns regarding the findings' generalizability. Additionally, the sample size was relatively small, comprising only eight educators, potentially limiting the representativeness of the broader population. The departure of the principal during the research process may have also influenced the results. Furthermore, the COVID-19 pandemic necessitated distance learning for over 70% of students, underscoring the need for further analysis of the impact of virtual learning on the education landscape.

Moreover, it is crucial to acknowledge the limitations associated with selection bias. This bias commonly arises in observational studies, including cohort studies, case-control studies, and cross-sectional studies, where participants are not randomly selected. It can also occur in interventional studies or clinical trials due to inadequate randomization (Oster, 2019).

In the context of this study, although two control groups were selected for comparison, there may still be underlying selection bias. The Texas Education Agency employs a comprehensive methodology to identify comparable schools considering grade levels, economic status, mobility rate, emergent bilingual or English learner population, students with special needs, and enrollment in early college high school programs. However, it remains crucial to remain vigilant against selection bias, ensuring the collected data is representative and appropriately sourced.

In conclusion, selection bias represents a form of systematic error that can impede group comparisons and unbiased findings. Diligent consideration of its presence is vital when analyzing the relationship between variables and ascribing causality (Oster, 2019).

Conclusion

Personalized learning is an innovative approach to education that seeks to tailor instruction to meet student's unique needs, strengths, and interests. It utilizes digital tools, technology, and real-time assessment data to personalize instruction, making it more efficient, effective, and engaging for diverse learners. Through personalized learning, students can progress at their own pace and have more control over their educational experience. Various studies conducted over the years have shown that personalized learning positively impacts student achievement, motivation, and engagement. Despite its potential benefits, personalized learning comes with challenges, including equity issues and access to technology. Educators and policymakers must work closely to ensure that all students, regardless of their background and socioeconomic status, have access to quality personalized learning opportunities. As personalized learning continues to evolve and gain popularity nationwide, it is critical to keep

exploring the different aspects of personalized learning and how it can be leveraged to optimize students' educational experiences.

Chapter 3

Materials and Methods

With this study, I examined the effects of personalized learning on sixth-grade students' reading comprehension abilities. There are layers of factors that propel students to improve reading comprehension, such as personalizing instruction, captivating student interest, developing cognitive and emotional skills, and pulling students to small group instruction to close reading gaps in real-time. The purpose of this study was to investigate the effectiveness of a personalized learning platform in improving reading comprehension abilities for sixth-grade students undergoing the challenging transition from middle school to intermediate school. By analyzing the impact of the personalized learning platform on students' reading proficiency, my goal is to determine the applicability of personalized learning platforms in enhancing educational outcomes for this demographic. With this study, I evaluated if personalized learning enhanced student learning in reading comprehension and paved the way for optimized learning processes during a critical period in students' academic journeys.

This research explored the multifaceted aspects involved in assessing how personalized learning affects the reading comprehension skills of sixth-grade students. Two fundamental questions were formulated as a guide for the research inquiry to achieve this goal. These questions led to the exploration of the diverse dimensions of the personalized learning approach and its impact on academic achievement in reading comprehension for students in this age group.

RQ1. How has personalized learning impacted sixth-grade student reading comprehension?

RQ2. How does implementing individualized mentoring strategies for sixth-grade students affect their reading comprehension abilities?

Methodology

This paper aims to foster a deeper understanding of how personalized learning can support students who struggle academically when leaving the sixth grade. This year, a fifth and sixth-grade middle school in a large suburban district implemented personalized learning schoolwide by leveraging technology to help students learn at their own pace. Personalized learning is an online learning platform embedded with interactive digital resources, intended to individualize instruction to allow students to learn at their own pace (Bingham, 2017). Personalized learning embraces the belief that students must be the center of all learning while teachers become the-guide-on-the-side, thus empowering students to be self-directed learners (Pane et al., 2015). This learning method includes flexible classrooms and one-to-one mentors that check-in on students academically and personally. The platform's curriculum is aligned with the district's scope and sequence; however, students can work through a series of digital content at their own pace and assess for mastery. Students join forces and engage in projects that allow for cognitive-lift, experimentation, and meaningful real-world challenges.

Long-Term Goal

This study investigated the efficacy of personalized learning approaches among sixth-grade students in a Texas school in enhancing their reading comprehension abilities. The primary purpose was to evaluate the impact of the personalized learning model on students' learning outcomes and determine whether these pedagogical strategies have a valuable role in improving students' reading comprehension skills. By scrutinizing the influence of personalized learning platforms on reading comprehension, I intend to facilitate opportunities for students to meet

grade-level reading standards. An increase in reading comprehension will allow students to be at grade-level reading.

Assumptions

One assumption of this study was teachers have the skills to differentiate in workshops/small groups for personalized support of student misunderstanding. Another assumption was teachers differentiated and personalized learning for sixth-grade students. An additional assumption was teachers have a plethora of data from the personalized platform to pull students into small groups to close academic gaps in reading.

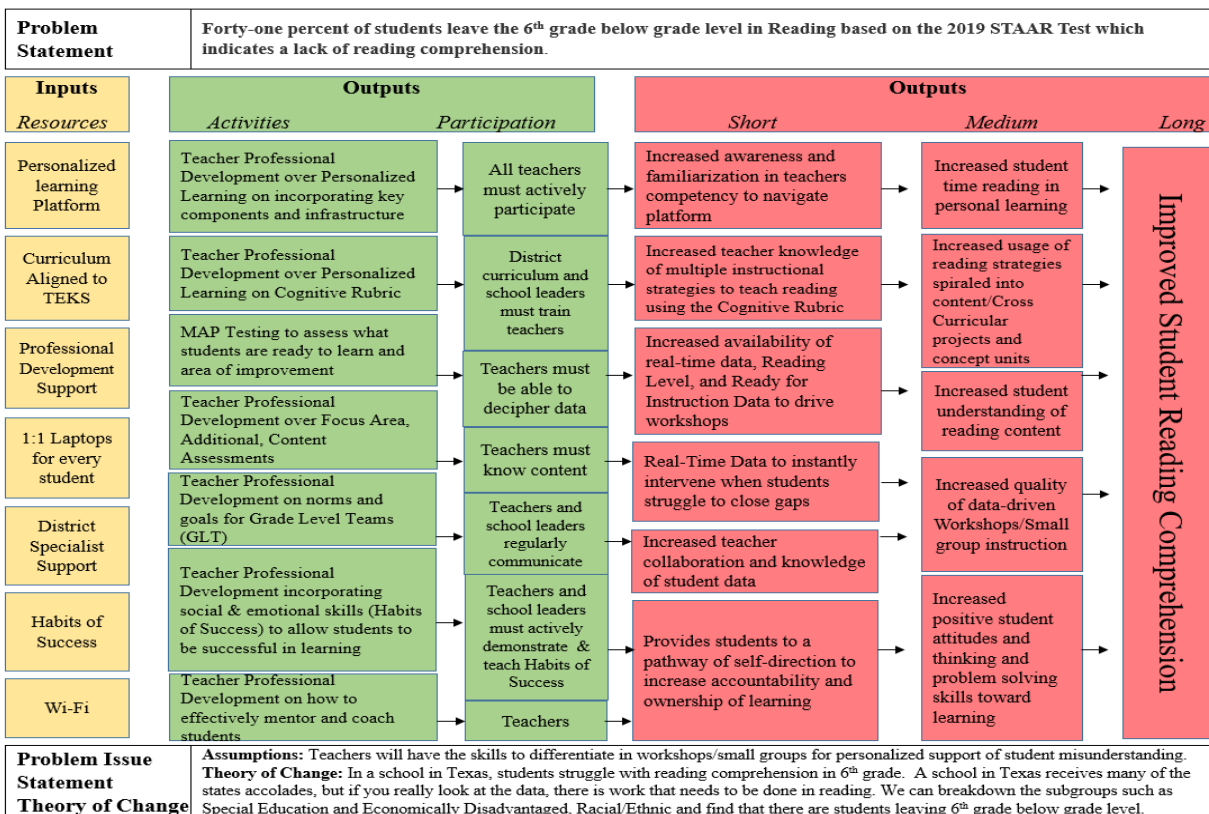
Program Logic/Theory of Change

The research at hand contends that the incorporation of personalized learning into the reading curriculum lends itself to strengthening student reading achievement. Specifically, sixth-grade students residing in a large suburban district of Texas are confronted by challenges with apprehending written texts despite the school's receipt of many state-level accolades. As such, a thorough analysis of the available data unequivocally points to the dire need to improve reading instruction. Consequently, the investigator sought to determine the impact of personalized learning on the students' comprehension of reading material throughout their sixth-grade to seventh-grade transition. Figure 5 represents the study's logic model, which enhances student comprehension by identifying overarching goals, intermediary steps, and activities to strengthen reading comprehension. As demonstrated in the statement of the problem, 41% of sixth-graders concluded the previous academic year without adequate reading skills, implying a need to address the apparent lack of reading comprehension among students. The logic model helps improve reading comprehension by defining medium and short-term objectives and outlining the

activities and participation outposts to strengthen student literacy. By enabling the identification of patterns and focus areas, the logic model is expected to improve student outcomes.

Figure 5

Logic Model of Improving Student Comprehension



Data Collection

In this study, I evaluated personalized learning effects on reading comprehension for sixth grade students to read at grade level. To make this happen, I did a mixed-method case study. For one school year, I collected data to ensure the time spent in the field was maximized. I focused on a school in Texas. This particular school is a fifth and sixth grade campus in a large urban school district and operates as a 100% personalized learning campus. More specifically, the school’s student population of 600 is comprised of 81% economically-disadvantaged

students with the following ethnic groups: 7.1% Asian, 13.1% African American, 72.4% Hispanic, 5.3% White, and 2.1% other races. The school officially opened in 2015 and personalized learning was implemented in 2018 with one team in fifth-grade and one team in sixth-grade. The school has received five state distinctions in the last two STAAR tests for the 2017–2018 and 2018–2019 school years. The school was the top school in 2019 of the Texas Education Agency 40 campus comparison group for student progress. I chose this school because many of the teachers have been a part of the campus since its opening and witnessed personalized learning implementation. In addition, most of the teachers have experience in both traditional and personalized learning classrooms.

Participants/Demographics

The data encompasses a diverse group of eight educators, constituting the complete sixth-grade reading team. These pedagogues specialize in bilingual education, special education, gifted and talented programs, instructional reading coaching, and standard education practices. With a collective teaching experience ranging from 1–15 years, this entirely female assemblage provides a unique blend of expertise, encompassing both personalized learning and traditional teaching methods. The selection of participants for the focus group was intentional, aimed at capturing a broad spectrum of insights from their varied pedagogical backgrounds.

Within this study's diverse group of eight participants, the majority boast extensive experience at this school, with only one novice instructor in her inaugural year (see Table 1). Interestingly, three-quarters of the educators hold a dual background in traditional and personalized learning methodologies, while the remaining participant solely specializes in personalized learning. Furthermore, these dedicated professionals actively engage in

collaborative initiatives, such as participating in professional learning communities (PLCs) and attending mandatory weekly grade level team meetings, which facilitate the implementation of personalized learning models. Notably, though grade level teams and PLCs share similar objectives, they differ in that the former involves teamed teachers while the latter connects departmental colleagues. Based on the collective insights of educators in focus groups, in this study I examined the transformational journey of teachers on one campus regarding their encounters with personalized learning techniques. I analyzed sixth-grade reading students' data to assess this progressive educational approach.

Table 1

Summary of Participants

Participants	Gender	Grade	Experience	Subject
P1	F	6	Personalized Learning and Traditional	Reading
P2	F	6	Traditional	Instructional Coach (Reading)
P3	F	6	Personalized Learning and Traditional	Reading
P4	F	6	Personalized Learning and Traditional	Reading
P5	F	6	Personalized Learning and Traditional	Reading
P6	F	6	Personalized Learning and Traditional	Reading
P7	F	6	Personalized Learning and Traditional	Reading
P8	F	6	Personalized Learning	Reading

An insightful opportunity arose to examine and converse with Crystal, an experienced educator with over a decade of service, including a noteworthy tenure at this school. Her renowned expertise, particularly in the realm of personalized learning, has garnered widespread admiration within the district. As a testament to her proficiency, she was among a select group of instructors who received the honor of attending the prestigious Summit School Personalized Learning Workshops in California. Additionally, her value within the district is underscored by

her recurring role in spearheading professional development initiatives focused on personalized learning approaches.

Data Analysis

This research aimed to scrutinize teaching competence by analyzing various data sources such as teacher surveys, focus groups, classroom observations, and MAP testing outcomes from the 2020–2021 and 2022–2023 academic years. Descriptive techniques recommended by L. Cohen et al. (2007) were employed to depict the variables of interest. Hammersley and Atkinson's (2019) method was then applied to detect emerging patterns in the data through careful and repeated analysis of the information. Furthermore, a constant comparative coding method was applied following Lincoln and Guba's (1985) approach to survey questions and feedback from teacher interviews. The data were systematically categorized, coded, and themed until saturation, using the guidelines in Patton's (2002) recommendations. This process facilitated the discovery of overarching patterns and themes supported by a systematic coding structure.

The study used transcription to convert verbal responses into written text for documentation or analysis. Accuracy and credibility were ensured by reviewing each recording twice. The data obtained through transcription was further analyzed by organizing it into a spreadsheet. By following this procedural system, I identified meaningful insights and comprehensively understood teacher competency in a personalized learning scenario. Results were then arranged into an insightful hierarchical structure of themes and sub-themes, rendering valuable insights for educators and policymakers.

Trustworthiness

Throughout the study, the most significant concern was the reliability of the data, which I ensured through numerous methods. Teachers responsible for sixth-grade reading could express their core experiences in their teaching program. I involved all teachers in incorporating traditional and personalized learning models without bias. To guarantee precision, I triangulated data collection methods, coding, and sources and verified the obtained data's accuracy by members.

The researcher engaged with the teachers over an extended period to record the full range of impacts over an academic year. The teachers were optimally informed and participated in the study. Interviews and focus groups were conducted through Zoom and phone recordings; I transcribed them twice to capture all vital information efficiently.

In the current research, I incorporated the member-checking process to strengthen the transferability of the data acquired. This process involves validating data interpretation by securing feedback from the participants themselves. According to Carlson's (2010) definition, member checking refers to validating data by asking for feedback from involved parties. The individual member-checking approach relies on eliciting participants' corrections, comments, and feedback regarding specific aspects of the data interpretation.

Upon analyzing the responses from interviews and focus groups, I concluded the participants express a positive outlook toward data interpretation. By securing feedback from those engaged directly in research, this approach took a considerable step in ensuring the data's validity and transferability.

This study played a vital role in affirming the transferability of data obtained from findings through member-checking and using individual participant feedback via email comments. Furthermore, the positive reviews expressed by participants during interviews and focus groups prove the accuracy and effectiveness of the study's findings.

Research Ethics

The utmost adherence to ethical standards was maintained throughout the research process, with a strong emphasis on safeguarding participant confidentiality. The institution's research board gave its approval to conduct the study, guaranteeing transparency and accountability to all school authorities. Informed consent was duly obtained from each participant, fostering trust and ethical commitment to the study.

Qualitative Sources

In this investigation, I used a rich tapestry of qualitative data from semi-structured interviews, classroom observations, and focus groups. This approach ensured personalized teachers' distinctive voices and experiences were brought to the forefront, providing a deeper understanding of their daily challenges. By capturing narratives that may not be highlighted in quantitative analysis alone, I sought to illuminate the significance of student discourse, peer support, and the adaptability required to incorporate project-based teaching methodologies successfully.

Classroom Observation

Over the course of the academic year, a particular personalized learning classroom underwent six instances of observation, delving into the pedagogical approaches employed by an experienced reading educator with 15 years under her belt. The instructing professional had been

duly notified beforehand, allowing her to prepare and maintain focus during the 55-minute observation period. Classrooms were observed six times throughout the school year. Classrooms were observed twice in the beginning, middle, and end of the year.

Semi-Structured Interview

In this study, participants partook in a pair of interviews, each spanning approximately 30–45 minutes. These discussions focused on exploring the experiences of educators who employ personalized learning strategies in their classrooms. A comprehensive set of interview questions was devised (see Appendix A), with diligent input from a district instructional reading specialist. All teachers involved were fully aware of the study’s objectives and willingly agreed to participate, providing their consent to be interviewed and documented.

Focus Group

In an engaging exploration of teachers’ experiences with the personalized learning model, a virtual focus group was convened mid-school year, featuring eight dedicated educators. Under the watchful guidance of the district reading specialist, who meticulously reviewed the inquiry, participants delved into a captivating 60-minute discussion fueled by active participation and thoughtful insights. With transparency and informed consent at the forefront, the teachers enthusiastically embraced the opportunity to contribute to this crucial academic investigation. The focus group questions are in Appendix B.

Qualitative Findings

The qualitative data was analyzed by conducting a detailed examination of the comments. The coding process was guided by Research Question 1: How has personalized learning impacted sixth-grade student reading comprehension? This process resulted in a structured set of

codes that accurately captured the essence of the comments. The focus group, interviews, and observations yielded a wide range of codes, which were then organized based on shared characteristics and themes. By grouping these codes, patterns and commonalities in the data became apparent. The categories were thoroughly reviewed to ensure proper labeling and organization. This review allowed for identifying and characterizing overarching themes, providing a comprehensive understanding of the data.

Coding is a fundamental technique employed in qualitative research methodology to analyze data. It involves assigning descriptive labels to specific aspects of the data, enabling researchers to capture the complexity of information and generate valuable insights for analysis and findings (Dissertation Center, 2023). In this study, the focus was on personalized learning in sixth-grade reading classes. Through analysis, three significant themes emerged that remarkably influenced the perceived effectiveness of this approach. Addressing Research Question 1—How has personalized learning impacted sixth-grade student reading comprehension?—the study explored the themes that emerged from the findings. These themes include a lack of student motivation, inadequate curriculum alignment with learning objectives, and insufficient opportunities for teacher professional development.

Regarding the theme of curriculum alignment, two subthemes emphasized the importance of providing more significant support for educators to comprehend and implement the curriculum effectively. Findings such as these carry substantial implications for enhancing the personalized learning experience and improving student outcomes in middle schools. The identified themes were shared with the network improvement community to support the ongoing improvement process of personalized learning. Consequently, the community collectively

determined a systematic professional development plan involving assistant principals and instructional coaches to equip teachers with skills in student motivation. Additionally, campus principals were tasked with seeking district support to ensure proper curriculum alignment. Finally, professional development opportunities, offered three times a month during conference periods, were aimed at empowering educators to provide effective instruction. With the assistance of these strategies, the district achieved improved student engagement and learning outcomes.

Classroom Observation

Crystal is a sixth-grade reading teacher at a school in Texas. Her class is a personalized learning reading classroom. Her classroom observation allowed for data to be collected in the personalized learning reading setting. My finding suggests students in a personalized learning reading classroom are highly self-directed. As soon as students walked into the classroom, they turned on their computers and immediately looked at the board's menu that showcased the day's expectations. The menu consisted of classroom norms, personal goal, essential question, cognitive skill, allocated time for work, and expectations for working in the platform and projects. Crystal reminded everyone to look at the menu to be super clear of her expectations.

Goal setting is something students do with their mentor teachers in the morning, but Crystal wanted them to write down their daily goals on the platform every day. My finding suggests every student in her class had their weekly goal and a class goal written down. Students started writing their daily goals for their reading class in the goal section. When students were pulled up into small groups, she would ask a few students what their goal was for today's class. Students could express their daily goal by stating it or checking back to what they wrote down.

Essential questions narrow the focus for students. On the menu, the essential question was clearly stated and written. My findings suggest all students know there will be an essential question for each focus area. By asking an essential question, Crystal's students can write down the answer, which allows them to eliminate distracting noise and confusion. The essential question was on the menu for students to see throughout the class. Today's essential question asked, "How can others' experiences around the world help you reflect on your life, and how can studying another's memoirs inspire your own?"

Crystal made sure students knew which cognitive skills they were working on in class. The menu's cognitive skill(s) to be scored were a theme, point of view, narrative, evidence selection, and multimedia in communication. My hunch is all students knew which cognitive skill they were working on. Students could state to each other in class various aspects of cognitive skills as a few of the students were finishing up their projects.

Most of the class was working on the personalized learning platform. My findings suggest all students in her class understood how to navigate the platform. Student engagement was evident in the classroom. Crystal told the whole class that a few of them did not complete the poetry section on the platform at the beginning of class. Students were self-directed and working various sections in the platform. A few students were finishing their math work in reading class. Three students were taking the Focus Area Content test. Very few students were doing the same lesson in the class. Two students were watching a YouTube video from the point of view.

Four students were working on their unfinished project. Even with only a few students working on their projects, my findings suggest students can demonstrate what they learned

through projects. Projects are 70% of a student grade, so there was urgency for the students to finish. There was much conversation going back and forth. The project on the menu was named Project #4. There was a lot of student discourse, but it did not bother the rest of the class.

Students were asking each other a question that pertained to the lesson on the platform they were working on. A few students were teaching other students who did not understand what they were doing on the platform.

The platform tracks student's data. My feeling is Crystal was fully aware of her student's data to personalize support and intervention for each of them. Student data that was mined and gathered by Crystal allowed her to intervene in real-time when students struggled. Crystal pulled students into small groups throughout the class period to close the learning gap. She had a list of students with their personal data that she used to group students. The data was collected from the past test the student took on the platform.

Crystal was in a small group table 80% of the class. The small group table was right next to her desk in the front of the class. My findings suggest Crystal's primary mode of teaching, intervening, and closing the gap is through small group instruction. She pulled students to the small group table from the very beginning of class. Crystal pulled students to the small group table and gave students questions to answer but gave an ample amount of time to work with each student. Students were released after she checked for understanding. Students were not released as a group from the small group table but were released individually as they showed evidence of mastery. The small group intervention was personalized to each group. In total, five groups were called up to the table for small group sessions in 55 minutes.

Semi-Structured Interview

Gracie is the reading coach at a school in Texas. She was interviewed to gain an understanding of personalized learning. My findings suggest there is power in releasing learning to students, which allows them to be equipped with self-direction. In Gracie's estimation, self-directed students are better prepared for college. She believes teachers at a school in Texas are facilitators of learning. Students spend about 4 hours on the platform each day working on their core subject content areas. Releasing the students' learning allows students to be in the driver's seat of their learning.

Besides, each student has an assigned mentor that meets with them once a week to set goals. Mentor teachers are given to each student to set goals. My hunch indicates mentoring and goal setting is vital for the overall experience of personalized learning. When students set goals, it empowers them to visualize the end product. Gracie said, "Mentoring time ensures that each student does not slip through the cracks." Mentors are expected to have a conversation with students about academic and non-academic topics. Gracie expressed this allocated time gives students a safe space to talk and belong.

For Gracie, the platform provides a plethora of data. Student data is like gold worth mining to tailor instruction. My findings suggest teachers know how to use the data from MAP testing, the platform, and common assessments. Teachers can use the data to pull small groups to close the gaps. Gracie said, "The workshops will either advance them or help reteach any misunderstanding." Workshops are used to support struggling students in real-time to give students personalized instruction. Gracie conveyed teachers cannot forget that personalized learning format cannot overlook special education and bilingual students.

Being a reading coach, Gracie admitted she does have concerns about students on their devices for an extended period. My instinct is Gracie believes students on their devices all day is not a good thing. There must be a balance with students on their devices. Technology is needed, but there needs to be time allocated for no technology. Students at this school all have a computer that is provided by the district.

Focus Group

Personalized learning schools have a network of teachers that meet throughout the month. The recommendation is for grade-level teams (GLTs) to meet once a week with their team of core teachers. GLTs' goals are to meet to discuss students' progress, data disaggregation, and designing small group instruction. The focus group consisted of eight sixth-grade reading teachers that met over Zoom to discuss personalized learning, grade-level team effectiveness, and reading comprehension.

The benefits of personalized learning were discussed among the teachers. My finding suggests teachers value it when students can learn at their own pace. The findings also suggest teachers believe the platform helps all students stay engaged and actively learning. Students can go as fast as they want through the curriculum but can slow down as they needed for support. There is a significant shift for teachers when they become personalized learning facilitators. Not only do teachers have to change their approach to teaching, but they have to release the learning to the students. Teachers become architects of learning by creating an environment that fosters choice. Teachers can design classrooms with flex seating, small group, and peer-to-peer support areas. One of the teachers said, "Students can develop and become familiar with their learning styles and know what works for them and what does not work for them." A few of the teachers

expressed that it is quite difficult for students not to be engaged because of personalized learning. With the vast amount of available data, it is hard for students to be invisible and fall behind in the platform. The personalized learning platform is programmed to illustrate students' progress by indicating who is on track and who is not. When students fall behind in the platform, the data color changes to indicate progress or regression.

Some challenges come with personalized learning. Personalized learning is a tool for learning. It is clear from the findings that a few sixth-grade students struggle with keeping up with their work. The data indicates not all students have the same motivation. Even though every student has an assigned mentor, a handful of students do not achieve their weekly goals. Part of the mentor's job is to motivate students to achieve their goals in their one-to-one mentor sessions. Teachers have expressed that if the students do not keep up with their work, they will be off-track. Being off-track can sometimes have a snowball effect that can gradually get bigger, heavy, and cumbersome. Personalized learning can be overwhelming for leveled literacy intervention, bilingual, and special education students. One of the teachers said, "There is a learning curve to this type of learning and teaching, and it can be overwhelming." Teachers recognize that when students do not comprehend how to navigate the platform, it can lead to a downward spiral in all core subjects. It is essential to intervene as soon as possible to create a safety net to support all students' personalized learning. Nevertheless, all of the teachers expressed they are willing to gamble with personalized learning because the gains outweigh the risk.

Teacher's personal feelings towards personalized learning influence their perception of the impact of education. Emotions towards personalized learning are personal. My findings

suggest personalized learning feelings and emotions depend on what the teacher teaches, for example, whether the teacher is teaching a core subject, special education, or bilingual. One teacher said, “It is a tool that has to be taught how to use correctly to maximize its effectiveness.” Teachers who have gifted and talented and overachieving students gravitate towards personalized learning. Gifted and talented and overachieving students can be motivated, self-directed, and driven in their personalized learning. However, bilingual and special education students need a gradual release with extra support. One of my special education teachers said, “I know my special education students struggle with typing and navigating through all the information.” Self-direction is terrific for students who can push through learning by trial and error. However, it can be a daunting task for students who have a language barrier and need accommodations for learning.

The platform has a plethora of data that is collected from students each day. After deciphering data, teachers disseminate students into groups to close the learning gap or for enrichment. Teachers were asked how many times they pull students into a small group in a week. The findings reveal all eight teachers pull small groups at least three times a week. Four of the teachers in the focus group said they pull students into a small group every day. Even with the pandemic lingering and safety being of the utmost importance, students were pulled to small groups with their masks. One teacher said,

This year was such a learning curve for me. A lot of my small group was not a small group. It was meeting one-on-one to see why the student was behind and what they were struggling with. Then intervening from there—but it was one-on-one.

The teachers expressed that they must intervene in real-time if students struggle so the learning gap does not snowball. Data is monitored so teachers know how to support and tailor instruction to each student’s needs.

The finding for GLTs indicated teachers are not able to meet as often as needed. A GLT consists of a student's math, science, reading, and social studies teachers meeting to discuss the overall child. One teacher said, "PLCs are very effective. I can collaborate with colleagues and share best practices. GLT could be more structured." A school in Texas bookmarks time to meet with teachers in PLCs but firmly nudges teachers to meet on their own for GLTs. Students are typically teamed; however, with COVID, virtual sections had to be created to support students learning at home. COVID had a direct impact on the master schedule. For example, this year, a school in Texas' students could not be teamed because of the virtual sections needed to support remote learning. The only way to have an effective GLT was for students to be purely teamed. Teachers found value in meeting in their GLT; however, they did not meet because they had different students. Nonetheless, teachers did keep PLC sacred and did not miss it. One teacher said, "They should happen more often. Students are not teamed as much, so it makes it difficult to have student discussions." The findings suggest teachers want to meet for GLT but found it pointless because they did not have the same students. Few teachers still meet with their GLT regardless of not being purely teamed. Those teachers have expressed that GLT keeps them on the same page. Teachers who regularly meet in their GLT expressed there is never enough time because so many students need to be discussed. One teacher said, "Thanks to technology, we meet informally all day long. Formally, we do not meet very often, but not as needed, since we communicate in other ways." Teachers found ways around the restriction of time by meeting on Zoom, which they have learned during remote learning.

All teachers in the focus group wholeheartedly believe personalized learning improves reading comprehension. A teacher stated, "Students become higher-level thinkers because of the

projects and assessments. It just takes longer for them to get there.” Students are released to learn at their own pace, which directly gives them ownership of their learning. It puts the students in the driving seat of their learning. All teachers shared that they have seen significant gains for students who have struggled for years. Students read so much on their own because they have to be self-directed. Students have agency in when and how they learn. The findings suggest with all the independent time spent reading on their own and projects, students’ reading comprehension improves. One of the teachers said, “Yes, it allows for students to develop those higher-level thinking skills.”

Qualitative Results

The qualitative research methodology utilizes coding as a technique to analyze data. This process involves assigning descriptive labels to specific aspects of the data and enables researchers to capture the complexity of the information and generate insights that inform analysis and findings. This study focused on personalized learning in sixth-grade reading classes, revealing three significant themes that considerably impacted the approach’s perceived effectiveness. These themes include a lack of student motivation, inadequate curriculum alignment with learning objectives, and insufficient teacher professional development opportunities. The theme of curriculum alignment features two subthemes emphasizing the importance of providing more significant support and comprehension of the curriculum for educators and support in real-time during instruction. These findings have substantial implications for improving the personalized learning experience and enhancing student outcomes in middle schools.

Quantitative Sources

In this investigation, a diverse array of quantitative tools, including surveys, educational assessments at various levels, and demographic information, were employed to scrutinize the influence of reading comprehension among sixth-grade students, ascertaining personalized learning outcomes.

Teacher Surveys

Five carefully curated surveys were administered in an intriguing study on teacher competency, focusing on essential areas such as personalized learning, reading strategies, MAP testing, small group engagements, and mentoring (see Appendix C). The district's expert reading instructional coach ensured the questions met high-quality standards before the surveys were sent to participants via Qualtrics. Remarkably, all eight sixth-grade reading teachers responded, demonstrating high engagement within the community.

It is essential that comprehensive training is implemented for teachers to ensure they are familiar with the competency platform and can navigate it successfully. As a testament to professional development, data was collected in August, documenting both the program offering and attendance of educators. Furthermore, an additional survey was conducted, capturing the efficacy of these developmental opportunities and painting a vivid picture of the impact on teaching practices.

MAP Data

The administration of MAP testing is integral to establishing foundational information on each student's capabilities. Enhancing the accessibility to instantaneous information such as reading level and ready-for-instruction data is imperative for driving workshops; thus,

professional development is crucial in empowering teachers to interpret this data. In November, a teacher survey was conducted to evaluate the effectiveness of this development strategy. Furthermore, in September, December, and March, MAP assessment data was gathered tri-annually to provide substantial evidence of student progress or potential regression.

The Significance of Choosing a Control Group in Examining the Effectiveness of Personalized Learning

Texas employs a comprehensive methodology to identify comparable schools for each campus, intending to determine unique comparison groups. To begin with, schools are initially categorized by type, and 40 other schools with similar grade levels, economic status, mobility rate, emergent bilingual or English learner population, and students with special needs, as well as those enrolled in early college high school limit to the number of such groups a campus can belong to (Texas Education Agency, 2022d).

These comparison groups are crucial in determining distinctions in academic achievement and postsecondary readiness for each campus. Texas takes several measures to ensure each campus has a unique comparison group. Firstly, all eligible campuses are grouped by type, and assigned linear scores for each variable, with higher values, indicating higher degrees of similarity. These scores are used in systematically comparing schools against each other to identify the most appropriate comparison group (Texas Education Agency, 2022d).

This rigorous approach fosters scientific accuracy by ensuring that each campus is accurately compared to schools with similar characteristics. As a result, educators and policymakers are provided with more precise information to make informed decisions regarding allocating resources and interventions to improve student outcomes (Texas Education Agency,

2022d). Each campus has only one unique comparison group, but there is no limit to the number of comparison groups of which a school may be a member.

The selection of appropriate control groups is a critical component of any research study investigating the effectiveness of an educational intervention such as personalized learning. In my research, I chose two schools as comparison groups, one implements personalized learning and another employs a traditional classroom teaching approach. The rationale behind selecting these particular comparison groups was based on several factors.

Both schools selected for the study have similar characteristics regarding grade levels, economic status, mobility rate, emergent bilingual or English learner population, and students with special needs. This approach aligns with the methodology employed by the Texas Education Agency (2019) to identify comparable schools for each campus, intending to determine unique comparison groups accurately. Thus, by selecting schools with similar demographics and academic challenges, one can adequately control for any confounding factors influencing the study's outcomes (see Appendixes D and E).

Personalized learning approaches the curriculum differently than traditional classroom teaching. Personalized learning provides a learner-centered pedagogy, where students take charge of their learning, set their own goals, and work towards mastering the academic standards in ways that match their interests and academic strengths. In contrast, a traditional classroom is teacher-centered, where teachers guide the learning process and lead students through the curriculum in a more structured manner. By comparing personalized learning to traditional classroom teaching, the study will provide valuable insights into the effectiveness of personalized learning and its potential to improve student outcomes.

Selecting two schools as comparison groups instead of one provides additional evidence to support the study's findings. Since each school has its unique comparison group, one can compare personalized learning outcomes to those of the traditional classroom teaching approach while controlling for other potential confounding factors. This evaluation method increases the validity and reliability of the study's results, providing a more robust and accurate picture of the effectiveness of personalized learning.

Carefully selecting appropriate comparison groups is a crucial aspect of any research study investigating the effectiveness of personalized learning. By choosing two schools with similar demographics and academic challenges, the analysis can control for confounding factors, compare personalized learning to traditional classroom teaching, and provide more accurate and valid evidence for policymakers and educators to make informed decisions regarding allocating resources and interventions to improve student outcomes.

Quantitative Results

My research in Texas involved selecting a control group from a single middle school within the same district as my focal institution. During the 2021–2022 academic year, the control school had an enrollment of 684 students, with 81.7% at risk of dropping out and 57.5% participating in English language and other bilingual learning programs.

The school's demographic makeup was comprised primarily of Hispanic students (88.6%), while the percentages of African American students (6.6%), Asian students (0.3%), and students of other racial backgrounds (4.1%) were comparatively low. My analysis also showed 81.7% of the school's students were at academic risk, while 84.4% were economically disadvantaged.

Students were given the MAP testing in the fall, winter, and spring to measure growth in sixth-grade reading utilizing personalized learning. A control campus was used to compare the effectiveness of personalized learning on students.

A split-plot ANOVA was conducted that examined the effect of personalized learning program status (personalized learning vs control) and time (2020–2021 MAP fall, winter, and spring) for higher levels of growth. I found the data to be not normally distributed as assessed by visual inspection of distribution and QQ plots, skewness and kurtosis values, and Shapiro-Wilk's test. A Huynh-Feldt was used for sphericity correction. My results revealed a significant main effect of personalized learning status and significant main effect of time, with $F(1.98, 937.92) = 16.73, p < .001, \eta^2 = 0.005$ and $F(1, 472) = 27.20, p < .001, \eta^2 = .02$. Most notably, my results revealed the interaction between intervention status and measurement point was not statistically significant, $F(1.98, 937.92) = 1.18, p > 0.30, \eta^2 = 5.227e-5$.

The outcomes of the split-plot ANOVA revealed negligible improvement in personalized learning students' growth from winter to spring. While the results showed that students in personalized learning had marginally higher scores than those in the control group, there were significant differences overall. Thus, it is challenging to make a definitive claim regarding the effects of personalized learning on student reading performance. Additional research would be beneficial to comprehend better the efficacy of personalized learning and its impact on sixth-grade reading scores. Future studies should involve a longer observation period and alternative measurement instruments to precisely determine the extent of personalized learning benefits. Although the data suggest personalized learning could enhance reading performance, more in-depth research is required to establish this conclusively. Overall, the study implies that while

personalized learning may positively affect sixth-grade reading scores, more extensive exploration is necessary to gauge its effectiveness fully.

Effect Size

Research inquiries often require numerical estimates to determine the degree of experimental effectiveness. For instance, effect size measures the strength of the relationship between two variables, allowing analysts to determine outcome significance (Mcleod, 2023). In this investigation, the overall effect size was found to be < 0.1 , indicating a trivial effect of the experimental treatment on the specific outcome. A widely accepted interpretation of the statement considers values greater than 0.5 as indicating large effects, while those falling between 0.5 and 0.3 represent moderate effects. Values ranging from 0.3 to 0.1 are rated as small effects, and those below 0.1 are deemed trivial effects (Bandolier, 2007). Nonetheless, using effect sizes as a scientific difference evaluator is still essential as it provides valuable information for researchers assessing the ultimate impact of variables on the outcome measure. Despite certain methodological flaws and limitations in the study's sample size leading to the observed shortcomings, the effect size is highly beneficial for researchers conducting scientific inquiries (Mcleod, 2023).

Personalized Learning Teacher Survey Results

Teachers were asked to complete surveys at the beginning of the fall semester to assess their understanding of various critical components of personalized learning. Eight participants consented to participate in the study. In the survey, five categories were identified as crucial to the success of teachers in personalized learning. Participants of the survey were evaluated on their competency in using personalized learning platforms, utilizing reading strategies integrated

into content/cross-curricular projects, exploiting MAP data, and using real-time data to intervene immediately when students have difficulties pulling small groups together. There was a 5-day deadline for participants to complete the survey. The surveys were scored on a Likert-type scale with 1 = *Never*, 2 = *Seldom*, 3 = *About Half of the Time*, 4 = *Usually*, 5 = *Always*. Results for Survey Question 1 are shown in Table 2.

Table 2

Q1. Teachers Competency Towards Navigating Personalized Learning Platform

Field	<i>M</i>
I post student announcements to inform expectations and anything new.	3.89
I use the curriculum page to help facilitate student learning.	4.50
When assigning projects on the platform, I can support students learning.	5.00
I assign Focus and Content Assessments for my students.	4.38
I pull data from the platform to support student learning.	5.00

Overall, the teacher was competent in navigating the personalized learning platform. They were comfortable pulling data from the platform to intervene when students had difficulties. Students can be pulled into workshops by teachers using data to catch up or intervene. Teachers may feel more comfortable assigning projects if they plan with the end in mind. Through projects, students demonstrate their ability to connect all the information they have learned to construct meaning and demonstrate understanding. Posting announcements for each subject area resulted in a mean score of 3.89, indicating the platform feature was not well known by teachers. By providing students with announcements, better communication can be achieved. The school should examine teachers' perspectives on the value of the student announcements feature. Results for Survey Question 2 are shown in Table 3.

Table 3*Q2. Teacher Usage of Reading Strategies Spiraled Into Content/Cross-Curricular Projects and Concept*

Field	<i>M</i>
I spiral reading strategies into my lesson cycle.	4.63
I use the Cognitive Rubric to help plan my lesson.	4.63
During projects-learning, students are exposed to reading strategies.	4.38
I can find the Cognitive Rubric on the platform.	5.00
I can teach my peers reading strategies.	4.75

A personalized learning program is only as good as the teacher. To learn at a high level, teachers must use research-based reading strategies when teaching whole or small groups. According to the data, teachers are comfortable incorporating reading strategies into the lesson, such as Turn and Talk, quick writes, and sentence stems. The personalized learning teacher's role in the classroom is to serve as a facilitator; however, teachers are responsible for introducing the concept either in a whole group setting or in smaller groups. The data indicate teachers know where to find the Cognitive Rubric, an essential tool to measure the standard of their teaching. Teachers' comfort level in teaching their peers reading strategies signifies their understanding of the concept. Results for Survey Question 3 are shown in Table 4.

Table 4*Q3. Teacher Competency Towards Utilizing MAP Data*

Field	<i>M</i>
I know how to access MAP data.	4.88
I create small groups using MAP data.	3.50
I tailor my lesson to each student with MAP data.	3.13
I group students based on MAP data.	3.38
I see progress when MAP data is used to pull small groups.	3.50

Most teachers report they are familiar with accessing MAP data, but some struggle to use it. Few teachers reported they do not use MAP data to tailor instruction or to pull small groups. Although MAP data can be used to gauge students, not all teachers frequently use it for grouping. The data indicate MAP testing is not the primary source of information for students in small groups. There must be a clear understanding of how to group students based on the interpretation of MAP data. The MAP data did not show the improvements some teachers desired when used to close academic learning gaps. Results for Survey Question 4 are shown in Table 5.

Table 5

Q4. Teacher Competency Towards Using Real-Time Data to Instantly Intervene When Students Struggle to Pull Small Groups

Field	<i>M</i>
I plan for small group instruction within my lesson cycle.	4.38
I plan before pulling a small group to support student misunderstanding.	4.50
I use data from the platform to pull small groups.	4.75
There is progress when students are pulled into small groups.	5.00
When students are pulled into a small group, I know how to intervene to close the learning gap.	4.63

Most teachers indicated students' progress when pulled to small groups; however, few teachers consistently plan for a small group in their lesson cycle. The platform reflects students' data in real-time, which allows instructors to pull students into small groups during class time. When students are placed in small groups, teachers are confident that they possess the necessary skills to intervene and close the learning gap. Teachers must understand student data as well as instructional strategies in order to close the learning gap. Using the platform data, teachers can pull groups in real-time based on the students' work. Teachers indicated they feel confident

checking student data within the platform and selecting who to pull into small groups. Results for Survey Question 5 are shown in Table 6.

Table 6

Q5. Teacher Competency Towards Mentoring

Field	<i>M</i>
I visit with all my mentee case load.	4.75
I know how to converse with students during each mentor session.	4.75
I am able to set goals for each mentee.	4.50
I can listen to students both academically and non-academically.	5.00
I can have crucial conversations regarding not meeting student goals.	4.75

The teacher's comfort level with setting academic goals suggests a productive discussion is taking place. Teachers' abilities to engage students in discussion facilitates an in-depth dialogue that guides students in setting realistic goals. The teachers were all in agreement that they could listen to both academic and non-academic conversations. Students' ability to converse with their teachers promotes belonging and encourages engagement. Teachers' willingness to have crucial conversations encourages feedback. The data indicate teachers are comfortable having crucial conversations.

Survey Findings

The results of a survey conducted after the fall semester revealed eight participants, who had given informed consent, displayed a high level of commitment to implementing personalized learning. Their understanding of important aspects of this educational approach was evident. The survey evaluated teacher success in personalized learning based on five key categories, and the participants received medium to high scores for effectively incorporating this method into their teaching. Their proficiency in utilizing personalized learning platforms, integrating reading strategies into cross-curricular projects, analyzing MAP data, and promptly intervening with

real-time data was also assessed. These results suggest implementing personalized learning with fidelity is likely to yield positive outcomes, particularly in relation to MAP scores. The survey findings were shared with the NICs, which supports continuous improvement in the field. Real-time professional development was offered to educators based on the survey results, and instructional coaches and assistant principals were responsible for providing support to teachers.

Chapter 4

Evaluating the Intervention

To guide the educational success of this particular school's sixth-grade reading classroom, in this chapter I evaluate an intervention seeking to counterbalance a troubling pattern revealed by walkthroughs and observations: students' inattentiveness caused by lack of comprehension. With personalized learning implemented, students at this school have an opportunity to learn at their own pace. Throughout this chapter, a comprehensive view of the structure and development process of an intervention is provided. I explore who was involved in the effort and which tools were employed to reach expected goals. Assessment results are then presented, along with relevant conclusions drawn from such analysis.

As a measure of the effectiveness of an intervention, a thorough evaluation process is employed to determine whether it made a positive impact on student engagement. As part of this process, I review quantitative and qualitative data, such as scores and information from teachers and students. After analyzing these results, conclusions are drawn, and necessary alterations or advice for future interventions can be determined. In addition, further discussion is needed of the scalability of a successful intervention and how it can be applied to other settings or contexts. Finally, potential implications for practitioners are discussed as related to implementation decisions and desired outcomes.

In this chapter I evaluate the intervention to address the problem of practice. An introductory section reminds the reader of the challenges presented by this issue and how the approach can help teachers better meet the needs of their students. Various instructional

strategies, such as collaborative and PBL, can assist teachers in adapting their teaching methods to engage all students better.

Personalized Learning

Personalized learning has become increasingly important in recent years as a strategy to help educators differentiate instruction to meet the specific needs of each student. Personalized learning is generally understood to be the use of technology and digital tools to enhance educational experiences at various levels (Subban, 2006). This method of teaching contrasts with the conventional one-size-fits-all approach utilized in many schools, where all students move through the same curriculum simultaneously. It provides students with the opportunity to take ownership of their learning process by having more influence over its design (Patrick et al., 2013). Furthermore, personalized learning promotes educators to develop innovative approaches so they can better cater to individual student requirements. By doing this, teachers can focus on providing more detailed instruction, higher semantic richness, and more factual information, which can enable them to create individualized lesson plans for each student's unique abilities and needs. The appeal of personalized learning in the United States is undeniable and has been studied extensively. Using individualized and targeted instruction, just-in-time learning opportunities (Blackboard, 2016), teachers and administrators can provide students with custom educational experiences tailored to their specific needs. Ultimately, personalized learning enables educators to provide an individualized approach to education tailored precisely to each learner's unique needs and interests (FitzGerald et al., 2018). Recent advancements in K–12 education have seen a shift towards personalized learning, which allows teachers to tailor instruction to the individual needs of their students. This approach is based on frequent, informal assessments of

pupils' progress, interests, motivations, and objectives (Pane et al., 2015; U.S. Department of Education, Office of Educational Technology, 2017). A study conducted by Pane et al. (2017) for RAND showed incorporating this form of learning into the classroom had a positive effect on student's reading performance. After 2 years, those who participated in the study had surpassed national norms for their age group (Pane et al., 2017). Such evidence confirms providing students with tailored curriculum and assessment based on their individual needs can help them reach their academic goals and excel beyond expectations. In recent years, educational institutions have begun to recognize the importance of providing personalized instruction tailored to students' individual interests, motivations, and aspirations. This shift away from allocating the same amount of instructional time to every student has been beneficial in preventing students who are struggling from being left behind academically (Lee et al., 2018). This approach helps ensure that those who have not yet mastered the learning outcome receive additional instruction and support. Moreover, by offering personalized instruction according to each student's particular needs and abilities, teachers can help create a learning environment that is maximally engaging for each individual learner. Personalized learning is an educational approach that allows students to tailor their education to their particular needs and goals (Pane et al., 2015). This approach breaks away from the traditional classroom setting, which typically consists of one teacher delivering content to a large group of students working at the same pace. Instead, personalized learning offers individualized instruction and mentorship, allowing students to work through material at their own speed (Summit Learning, n.d.b, n.d.c). Personalized learning strategies incorporate a range of engaging projects and activities that foster deeper student engagement with the core subject matter. Such approaches foster active learning,

stimulating experimentation, research projects, debates, field trips, and other interactive opportunities. By embracing personalized learning approaches, teachers can facilitate learning rather than simply lecturing on key topics. These techniques offer students opportunities to cultivate their critical thinking and problem-solving capabilities, rendering their educational experiences more relevant and meaningful (Arnesen et al., 2019). These methods provide learners with opportunities to develop critical thinking and problem-solving skills while making educational experiences more meaningful.

Teachers' and Students' Roles in Personalized Learning

Personalized learning offers the opportunity to tailor instruction to the individual needs of each student. This platform provides a variety of resources that are designed specifically to meet the unique learning style, identity, and interests of each pupil (Dabbagh & Kitsantas, 2005). To implement personalized learning initiatives effectively, it is essential for teachers and schools to establish system-level scaffolds and tools that can empower students to become self-directed learners (Pane et al., 2015). The role of educators in this context shifts from traditionally lecturing information to more of a mentor or coach who aids students in taking ownership of their own growth (Pane et al., 2015). Additionally, providing meaningful feedback is necessary for continued success in personalized learning environments. In a study conducted by Pane et al. (2015), research revealed students who underwent personalized learning experienced an impressive improvement in their math and reading performance compared to those students from similar educational settings who had not received personalized instruction. This discrepancy was especially pronounced for students of lower academic standing, who exhibited more growth in mathematics particularly. Beyond this, Pane et al. reported that out of the 62 charter schools

included in their implementation analysis, most showed statistically positive results. Moreover, many of these schools are based in urban regions and are home to a sizeable number of minority students. These findings offer compelling evidence that personalized education strategies can have a profound impact on student outcomes, particularly for those from disadvantaged backgrounds. Reports from school-level data revealed a considerable proportion of students (80%) are eligible for free or reduced-price lunches, with 75% of them being students of color. Research conducted by RAND established that pupils with lower reading levels experienced an improvement because of personalized learning (Pane et al., 2015). In particular, the study noted three elements to be especially successful within this sort of environment—flexible student grouping, varied learning spaces throughout the school, and data-driven collaboration regarding progress. The vast range of data available through personalized learning can be utilized by teachers to differentiate instruction, personalize it to suit individual pupils' needs, and provide tailored support (Pane et al., 2015).

Project-Based Learning Within Personalized Learning

Collaborative learning allows students to actively work together towards a common goal. It encourages group problem-solving and critical thinking skills by allowing them to take responsibility for their learning progress with their peers' guidance. Furthermore, PBL allows for a deeper exploration of topics and higher levels of understanding by encouraging students to ask questions about their subject matter. This type of instruction promotes creativity and self-directed exploration and builds student autonomy which is paramount for long-term success.

In addition to discussing how these strategies benefit student engagement, I provide readers with tangible examples they can apply in their classrooms. For instance, I offer

information on available resources that allow teachers to select activities tailored to different types of learners, which can eventually lead to more equitable educational outcomes for all students. I strive to ensure that my solutions provide readers with a clear understanding of my research findings and empower teachers with practical tools they can use in the classroom.

Although students may be learning information in the classroom, the material may not have a lasting impact without an appropriate context for them to apply this knowledge. One possible intervention is PBL to address this problem. This approach focuses on having students explore a topic or issue in depth, allowing them to make meaningful connections between what they are learning in school and how it can be applied outside the classroom. With PBL, students gain hands-on experience with real-world problems by working collaboratively on projects requiring research and knowledge application. In doing so, they develop problem-solving skills that they can use within and beyond their academic career.

Additionally, PBL encourages critical thinking and allows learners to construct their understanding of complex topics. Learners can internalize their findings more effectively by providing opportunities for personalization and reflection within the project itself. Thus, PBL has been seen as an effective tool in creating more profound knowledge around various subjects and improving student engagement. In this chapter I evaluate an intervention to address the problem of practice, which is the issue of students not having access to lesson content due to varying levels of prior knowledge or experience. To combat this, teachers need to utilize various instructional strategies that will challenge all learners while accounting for their differing skill levels and academic backgrounds. This includes designing lessons with appropriate difficulty levels so students can analyze and think critically about the material regardless of their level of

understanding. Additionally, differentiated instruction encourages student engagement and provides successful pathways for each learner. Teachers can help bridge the gap between knowledge and skills through these methods, allowing all students access to lesson content.

Systematic Mentorship

To accurately measure the effects of teacher mentorship on sixth-grade students' academic and non-academic outcomes, researchers need to ensure their samples represent those who would benefit from such a relationship. Careful consideration needs to be given when selecting participants in a mentor/mentee program; teachers should select potential mentees based on their specific educational needs or life circumstances (Booker & Brevard, 2017). Furthermore, surveys and interviews can collect data on each student's academic motivation and interest in learning (Summit Learning, n.d.b). A study by Bruce and Bridgeland (2014) found students with weekly meetings with mentors are 52% less likely to miss school than those without such a connection. This statistic demonstrates the positive effect that mentoring has on attendance rates, making it an effective method to help encourage academic success in at-risk youth. Furthermore, Bruce and Bridgeland's research showed that those with mentor support were more likely to attend college and experience extraordinary academic achievement than students without it.

The advantages of formal mentoring programs for at-risk youth in providing a secure and supportive environment through knowledgeable mentors were emphasized in Bruce and Bridgeland's (2014) research. These programs create valuable opportunities for young people to form meaningful relationships, establish educational goals, and receive emotional support. The findings of Bruce and Bridgeland's research underscored the importance of mentoring in driving

academic success for at-risk youth. Thus, schools must incorporate formal mentoring programs to support students with the requisite social connections and resources for academic progress. Balancing the provision of delicate support and guidance while instilling personal responsibility for academic success is an intricate task in mentoring at-risk youth.

Mentoring at-risk youth is an essential yet challenging endeavor. It requires mentors to delicately balance providing constructive feedback in a manner that builds confidence and encourages growth without causing discouragement or creating feelings of inadequacy (G. L. Cohen et al., 1999). Achieving this balance calls for mentors to take the time to understand their mentee's objectives, strengths, and weaknesses prior to offering feedback. This approach allows mentors to provide meaningful comments that acknowledge their mentees' hard work and provide honest criticism for further development. Doing so allows mentees to recognize successes and use critiques as potential points for improvement (G. L. Cohen et al., 1999).

Mentors need to bear in mind that giving constructive feedback can also be beneficial in helping build resilience and foster self-belief. G. L. Cohen et al. (1999) highlighted the significance of offering constructive feedback across racial lines to ensure a safe and nurturing learning environment. They asserted mentors need to combine high standards with the assurance that the student can reach those standards, enabling them to take risks and challenge themselves. Mentoring, however, has its challenges. While offering feedback on student performance, mentors often need help to balance being firm and supportive.

Furthermore, providing practical criticism requires significant time and effort, as it must be done in a manner that allows for personal growth and development simultaneously. To increase the effectiveness of critical feedback, educators must strive for higher semantic richness

when communicating with students; this includes providing more details and facts and potential positive and negative consequences of their choices. Ultimately, mentors should strive to create an environment where all students feel supported in their academic growth regardless of race or background. As wise mentors, it is essential to demonstrate high expectations and provide confidence in their student's ability to meet them (G. L. Cohen et al., 1999). This is necessary for mentees from underrepresented backgrounds who may come from educationally or economically disadvantaged backgrounds and often lack the sense of self-efficacy to believe in their potential. The mentor must take extra care when providing criticism to convey a sense of trust and support while maintaining a level of accountability and drive for improvement. Mentees from underrepresented backgrounds who may have experienced educational and economic disadvantages often struggle with self-efficacy and may doubt their abilities. Effective mentorship, therefore, requires mentors to provide constructive feedback while reinforcing trust and support to help mentees cultivate self-belief and motivation for improvement. Atkins et al. (2013) asserted mentors can bolster self-efficacy by tactfully critiquing performance while expressing faith in the mentee's potential. To achieve this balance, mentors must exercise sensitivity and care in their approach. Implementing this strategy helps create an environment where all students have equal access to feel supported and encouraged by their mentor. Tahir et al. (2016) suggests that providing students, including those from minority backgrounds, with a learning environment with high expectations and assurance leads to higher academic achievement and improved motivation. For instance, research has demonstrated that African American students exposed to more positive messages from their teachers are more motivated in their studies than those who do not receive such encouragement. This shows the importance of

promoting self-confidence and self-efficacy among all students, regardless of race or background, by creating a learning atmosphere that encourages success. By doing so, mentors can equip learners with the knowledge and skills to achieve academic excellence. Additionally, affirming that each student can perform well in school will help foster feelings of worthiness and competence. In addition to providing positive reinforcement, mentors must ensure that they are being fair and just when enforcing classroom rules to cultivate an atmosphere conducive to learning further.

Purpose of Intervention

This intervention study primarily evaluates the impact of job-embedded professional learning on the student mentorship framework for sixth-grade teachers. A mixed-method approach utilizing an embedded experimental model with a one-phase approach was implemented to determine the efficacy of professional learning within personalized learning, aiming to enhance the quality of education and mentorship provided to middle-school students. In pursuit of this goal, a network improvement committee comprised of teachers, instructional coaches, and principals was formed. The network improvement committee adopted a structured process of problem review, intervention planning, implementation, and study and revision. Coaching and feedback will be provided to teachers via walkthroughs to facilitate the study. The intervention includes convening with the network improvement committee, analyzing the findings of the personalized learning vs. control group reading data, gathering teacher voice, improving mentorship, reevaluating the School-Wide Mentorship Plan, evaluating student efficacy, assessing student expectations, receiving feedback, creating a mentor walkthrough form

(see Appendix F), committing to admin weekly mentor time walkthroughs, introducing the implementation plan to all stakeholders, and providing a clear plan of implementation.

Mentoring Process

At a school in Texas, personalized learning is immensely enhanced by the crucial foundation of 1:1 mentoring. This indispensable practice strengthens the bond between young learners and school-based adults and fosters a nurturing environment for optimal growth. This mentorship model facilitates authentic connections and fosters a sense of care between students and educators, thereby bolstering the overall learning experience. Adopting a systematic methodology, each student receives individualized guidance from a dedicated mentor, who passionately champions their holistic development within and beyond the educational environment.

The role of mentors within an educational setting extends to teachers, school leaders, and various administrators that engage with students. By conducting consistent 1:1 meetings, these mentors employ the platform's mentoring page to facilitate their students in attaining both short-term and long-term academic goals as well as personal aspirations. Through this platform, mentors can assess student work and provide necessary guidance that ensures the learners remain focused and on track for their academic journey. Mentors utilize the mentoring platform to update pertinent information, ensuring a seamless continuity in their subsequent sessions. Upon departure, students gain clarity about their academic trajectory. Notably, while the platform visually displays incomplete assignments, mentors play a critical role in guiding the students to prioritize and maintain focus on essential tasks. The mentoring feature within the educational platform grants educators enhanced adaptability, foreseeability, and authority in managing their

mentoring agenda. Consequently, this facilitates the seamless incorporation of mentoring sessions into classroom activities. Incorporating mentoring into the educational process provides teachers with valuable insights and data, allowing them to effectively allocate time and prioritize student check-ins. The mentoring page, a comprehensive platform, empowers mentors to efficiently organize regular meetings, establish agendas, monitor student goals, and maintain detailed records of interactions. This platform facilitates centralized access to essential information, such as students' academic data and the duration since their last check-in, ensuring each learner receives the necessary mentorship.

Mentorship Intervention

For students to make progress within the personalized learning model, there was a need to refine and improve the mentorship process at a school in Texas. At further review, the implementation of students being mentored by a staff member was not done with fidelity. Staff members were not consistently mentoring students with fidelity which left gaps in the process. There was a need to create a walkthrough form that encompassed 100% of the purpose of mentoring, such as student efficacy, expectations, and feedback. The intention of the school in Texas Mentoring Look Fors Walkthrough form was to help support school principals and instructional coaches gather data to streamline, provide coaching, and narrow the focus of the mentorship process.

Mentor Walkthrough Forms

A group of educators from diverse disciplines banded together to create an innovative set of walkthrough forms. The purpose of using walkthrough forms is to observe and document the various ways in which teachers facilitate effective mentorship. These forms enable educators to

capture key actions, behaviors, and conversations contributing to a successful mentor-mentee relationship. Through this method of observation and documentation, schools and educational institutions can gain valuable insights into the mentoring process and develop strategies to enhance mentorship programs. By utilizing walkthrough forms, educators can have a more comprehensive understanding of how to cultivate successful mentorship relationships and create a positive learning environment for all students. These forms are tailored to encompass various subjects, including English, History, Math, and Science. The team put great emphasis on three key aspects: student efficacy, student expectations, and feedback. With a focus on student efficacy, they encouraged teachers to foster both academic and non-academic conversations with their pupils to help bolster self-confidence. When it came to student expectations, the team honed in on the Self-Directed Learning Cycle, urging students to establish their own SMART goals and to articulate their preparedness for upcoming content assessments. Finally, in the feedback domain, teachers were instructed to offer constructive critique when evaluating student progress towards their goal. The ultimate goal of academic coaching is to support students in reaching their full potential by nurturing their self-efficacy and learning process. To achieve this, school coaches strive to collect data on effective strategies for guiding students to creatively articulate how their past successes and failures inform their current learning. By focusing sharply on student expectations, feedback, and confidence, academic coaches are finding ways to positively leverage the power of mentorship to impact student growth and achievement. In a successful effort to promote mentoring excellence, 20 Mentoring Look Fors Walkthrough forms were gathered and used as data. After careful evaluation of the information documented on these

records, 16 teachers received meaningful feedback to further their professional development journey.

Student Efficacy

One of the most important factors in successful education is the relationship between teachers and students, which can significantly impact students' sense of confidence in their abilities and ultimately their academic achievements. The degree of confidence in one's ability to achieve specific teaching goals or self-efficacy beliefs directly correlates to the levels of support educator's offer in a classroom setting. Furthermore, these beliefs have been found to impact the motivational levels of adolescent students. Evidence suggests teachers with a strong sense of self-efficacy are likelier to exhibit positive teaching practices that foster a supportive learning environment, ultimately influencing their students' engagement and academic achievement. Such findings underscore the important role self-efficacy beliefs play in shaping the educational experiences of both teachers and their students (Oppermann & Lazarides, 2021).

The Mentoring Look Fors Walkthrough forms have meticulously curated categories to evaluate a teacher's potential in guiding and enhancing student efficacy. The student efficacy section is divided into two subcategories that assess the teacher's competence in fostering student growth. The first subcategory scrutinizes whether a teacher provides favorable opportunities for students to engage in academic and non-academic conversations. The second subcategory examines how effectively a teacher encourages students to avoid self-limiting statements and instead utilize growth mindset language and positive self-talk to boost their confidence and academic performance. The forms are a comprehensive tool that helps educators tailor their approach to meet the diverse needs of their students and encourage holistic growth.

During the classroom walkthrough observation, teachers consistently created opportunities for both academic and non-academic conversations. Through the walkthrough forms, it was clear that teachers fostered a learning environment focused on more than academics. Specifically, there were eight occasions where they asked students about celebrations in their life while 10 instances of initiating dialogue were based on weekend activities. The student responses varied from recounting attendance to birthday parties and sporting events alike, ultimately allowing all participants to engage in meaningful conversation beyond traditional academics.

In the subcategory of teachers who actively worked to avoid self-limiting language with their students, eight conversations were observed from 20 walkthrough forms. The focus was on assessing student performance. When presented with limiting responses about themselves or their abilities, educators encouraged them to use words such as “keep your chin up” and “you got this.” It was recorded that physical responses included smiling more confidently and lifting heads higher in body posture—all indicative of a positive attitude shift following teacher guidance.

Student Expectations

Educators should strive to attain greater heights of expectations for both them and their students. Developing a mutually beneficial relationship between student, teacher, and parent encourages effort toward reaching high goals while avoiding unattainable benchmarks, is key to creating successful learning environments. Understanding the individual differences among pupils concerning aptitude levels and personality traits will help instructors create more effective prospects tailored to each learner’s capacity. Adaptability about allocated timeframes (especially when considering different paths may require longer periods) combined with varying forms of

instruction allows room for every pupil's capability to be fulfilled accordingly. Moreover, highlighting set objectives through verbal communication alongside appropriate non-verbal signals also reinforces expected criteria effectively so all parties comprehend fully what measures are needed (Carpenter et al., 2004). Sixth grade is a crucial time for students to start envisioning their postsecondary education; in fact, it has been proven by Eccles et al. (2004) that these expectations are an influential factor when predicting college enrollment. However, realizing such high aspirations can be a challenge due to miscommunications and conflicting hopes. Student optimism towards their academic future has been consistently demonstrated in data from the National Center for Education Statistics (Kaufman et al., 2004); with 91% expecting a high school diploma and 83% looking to further educational pursuits, it appears this generation recognizes the importance of higher education in today's job market. The Southern Regional Education Board (2002) found such ideals help foster student success by giving them an ambitious goal to strive for.

The Mentoring Look Fors include three distinct subcategories related to student expectations. One of the subcategories concerns collecting data on how educators guide students through the self-directed learning (SDL) cycle. It is crucial to document this process comprehensively, enabling a more comprehensive understanding of guiding student progression. Summit Learning (n.d.c) integrates a structured and complete SDL cycle within its academic framework, promoting student growth and preparedness. Their approach fosters autonomy and independence while cultivating self-discovery, cooperation, and intentional practice. Through the SDL cycle, learners reflect, define goals, strategize, acquire new information, perform demonstrations, and critically reflect. This approach prepares students for post-secondary and

professional contexts (Summit Learning, n.d.c). The Mentoring Look Fors Walkthrough form's second subcategory centers on data collection regarding students' methodology in creating input SMART Goals using the platform. SMART Goals are a comprehensive framework that tracks personal and academic growth, specific, measurable, achievable, relevant, and time-based. Students can adjust their SMART Goals with feedback from their teacher to align with their needs and aspirations (Summit Learning, n.d.a). The third and final subcategory focuses on assessing student readiness for content assessments, a key signifier of their level of preparedness. Mentoring time is dedicated to preparing students for academic success. Central to this preparation is the teaching of effective approaches to content assessments. Our mentors encourage students to articulate their exam strategies and offer guidance on improving them. Weekly meetings with teacher-mentors allow students to reflect on their progress and receive valuable feedback. To facilitate these meetings, we provide structured discussion guides to prompt students to think about what worked well and what needs improvement from the previous week. With this information, our teacher-mentors can offer tailored advice on goal-setting and planning to help students optimize their efforts. As students become more proficient in setting and meeting their goals, they prepare themselves for a brighter future. Whether you're a student looking to improve your study habits or a teacher hoping to help your students reach their full potential, our mentoring time program is the perfect opportunity to achieve your academic goals (Summit Learning, n.d.b).

In the subcategory of teachers guides students through the SDL cycle, out of 20 Mentoring Look Fors Walkthrough forms, only was noticed five times that the administrator was to extract data. It was noted on the walkthrough form that "SDL cycle was used to support

projects. Also, when students struggled with progress in math, teachers referred back to the SDL cycle. All five were noted, data referred to teachers going back to SDL cycle when students are struggling in a core class. The SMART goal section was filled out 18 times of the 20. Teachers were consistent about setting SMART goals with students throughout the mentor cycle. It was noted 13 times mentors asking their mentees, “What is your goal for the week?” There was five times, they used the phrase, “Have you made progress on your goal?” During the mentoring session, the teachers encountered challenges inquiring if the students’ test preparations were informed by the data gathered or if additional evidence was necessary within the mentoring segment. In this specific subcategory, only two types of data were collected: “encourages students to share the progress of their note-taking” and “inquires about the procedures students utilized for their preparations.” The recorded notes indicated the students could express taking extra classes and tutorials. It is crucial to acknowledge factual information as it informs one’s actions.

Feedback

Feedback is a game-changer in mentoring relationships. It has been emphasized by experts as playing a critical role in facilitating growth and development (McCauley & Hezlett, 2002). Mentees rely on feedback from their mentors to identify areas for improvement and enhance personal performance (Mullen, 1994). In turn, mentors look for mentees who are receptive to their feedback to ensure successful mentoring outcomes (Allen et al., 1997). Despite its paramount significance, feedback remains a neglected area in the research landscape. However, if one wants to maximize the potential of mentoring, one cannot afford to overlook the vital role of feedback in this process.

The Mentor Look Fors framework comprises two crucial components related to feedback. The first component involves providing constructive feedback to students regarding their progress toward their academic goals and plans. This feedback is a vital and versatile tool for helping students identify their strengths and weaknesses, aligning them with their learning objectives, and guiding them in enhancing their skills. Experienced teachers know that delivering effective feedback is not a straightforward task. It requires access to many user-friendly tools and resources that support daily student interactions. Teachers can create an environment that promotes learning and growth by leveraging these resources. Mastering the art of delivering actionable, constructive feedback is crucial to effective teaching. Invest in continuous development to become the best possible teacher and make a positive difference in your students' lives. The second subcategory of feedback concerns teachers' ability to assist students in reflecting on their learning process by identifying how past successes and failures have influenced their growth. Feedback is a crucial tool in a skilled teacher's arsenal as it allows students to identify their strengths and weaknesses and work towards specific cognitive goals. By giving students ownership of their learning journey, teachers can provide them with tailored and actionable feedback that helps them progress toward their desired level of proficiency.

Eight conversations were gathered between teachers and students regarding their progress toward individual plans and goals. Four discussed meeting objectives, while two probed the student's reflection on prior achievements. The query "What keeps you from achieving your goals?" was repeated twice throughout the discourse to drive further introspection. The remaining data referred to specific projects pursued by each learner, illustrating that they are advancing their knowledge base with assistance from experienced educators guiding them along

this path at every step. Teachers can provide invaluable support to students as they work to understand their past successes and failures in the learning process. Through four collected conversations, a pattern emerged of mentors sharing practical strategies for upcoming assessments and emphasizing the importance of notetaking when attempting new tasks so that mistakes may be avoided moving forward.

Quantitative Data Collection

The research methodology involved selecting a different middle school from the same district to collect data after implementing the Mentor Walkthrough Forms intervention. The chosen school comprised 606 students as of the 2021–2022 academic year, adhering to a traditional classroom format. Of these students, 69.8% were considered at risk of dropping out of school, with 15.8% enrolled in bilingual and English language learning programs. The school was awarded an accountability rating of B for the 2021–2022 academic year. The student population comprised 15.3% African American, 6.6% Asian, 70% Hispanic, and 6% White. Notably, most students, i.e., 61.9%, belonged to the economically disadvantaged segment, whereas 21.6% exhibited limited English proficiency.

A split-plot ANOVA was conducted to examine the impact of personalized learning and assessment periods on MAP testing for greater growth levels after adding the mentor walkthrough form for the 2022–2023 academic year. Before analysis, all assumptions of the analytical technique were verified. However, the data was found to be non-normally distributed according to visual inspection, skewness, kurtosis values, and Shapiro-Wilk's test. Subsequently, given the data's non-normal distribution, a Huynh-Feldt sphericity correction was performed. Findings revealed insignificant main effects of personalized learning status and time with

significant $F(1,417) = 1.04, p = 0.308, W2 = .001$ and $F(1.94, 810.07) = 7.039, p < .001, W2 = .002$, respectively. Additionally, the interaction between intervention status and measurement point was found to be statistically significant, $F(1,943) = 3.583, p < 0.02, W2 = .001$.

I used a simple effects analysis to understand the interaction effect's nature better. The results indicated no significant difference in MAP RIT scores between the personalized learning ($M = 208.63, SD = 14.88$) and control group ($M = 211.10, SD = 13.48$) in the Fall MAP test, $F(1) = 3.14, p = .07$. There was also no significant difference in growth levels between personalized learning ($M = 210.74, SD 13.91$) and control group ($M = 211.06, SD = 13.07$) in the Winter MAP test, $F(1) = 0.057, p = .81$. Finally, our Spring MAP results showed no significant difference in MAP growth between personalized learning ($M = 210.77, SD = 14.72$) and control group ($M = 211.93, SD = 13.68$), $F(1) = 0.692, p = .40$.

Effect Size

Numerical estimates are commonly used in research inquiries to evaluate the effectiveness of experiments. Analysts rely on an effect size metric to quantify the strength of the relationship between two variables and determine the significance of outcomes (Mcleod, 2023). This study found an overall effect size of less than 0.1, indicating a minimal impact of the experimental treatment on the specific outcome. Large effects are typically defined as values exceeding 0.5, moderate effects ranging from 0.5 to 0.3, small effects ranging from 0.3 to 0.1, and values below 0.1 are considered trivial. While studies may have limitations, such as methodological inadequacies and small sample sizes, it is essential for researchers to use effect sizes as a tool to evaluate the true impact of variables on the outcome measure. Despite its

limitations, effect size remains a valuable tool for researchers in scientific inquiries (McLeod, 2023).

Results

To answer Research Question 1, which examines how personalized learning affects student reading comprehension, I collected data from MAP tests administered in the fall, winter, and spring seasons. I conducted a split-plot ANOVA to investigate the impact of personalized learning and assessment periods on MAP testing to determine whether or not adding the mentor walkthrough form for the 2022–2023 academic year would produce greater growth levels. Although personalized learning strategies were applied, the performance of the personalized learning group was not as good as the control group. Despite this, the results showed that during the fall and winter, there was a reduction in the achievement gap between both groups.

While answering Research Question 2, which focused on the effect of individualized mentoring strategies on reading comprehension abilities among all students, I introduced the mentor walkthrough approach. This initiative aimed to enhance the teacher-student relationship through routine meetings. This approach led to subsequent improvements in reading comprehension. Although the progress was evident, the results showed the control group outperformed the personalized learning group.

It is necessary to analyze the data further and conduct more research to understand why personalized learning strategies did not achieve the anticipated impact on student performance. Supporting teachers with the know-how to utilize individualized learning strategies better and exploring alternative methods to improve outcomes is, therefore, essential. Ultimately, teachers can maximize the benefits of personalized learning in classroom settings by doing this.

Chapter 5

Discussion of the Results

Personalized learning refers to the practice of adjusting educational experiences to suit the unique strengths, weaknesses, and interests of each student. This individualized approach to learning empowers students to take control of their education by allowing them to choose what they learn, how they learn, and when and where they learn. By accommodating the diverse learning needs of students, personalized learning fosters flexibility that supports them in achieving the most rigorous academic standards. This approach also cultivates a sense of student voice and autonomy, empowering students to take ownership of their education and cultivate lifelong learning skills. (Bray & McClaskey, 2014; Patrick et al., 2013).

The aim of this research was to assess the effectiveness of personalized learning in improving sixth-grade students' reading comprehension skills. A mixed-methods approach was employed to answer two fundamental research questions:

- RQ1. How has personalized learning impacted sixth-grade student reading comprehension?
- RQ2. How does implementing individualized mentoring strategies for sixth-grade students affect their reading comprehension abilities?

Results from the 2020–2021 MAP demonstrated that personalized learning contributed to only a modest increase in the student's comprehension abilities. A split-plot ANOVA was conducted to investigate the impact of personalized learning program status (personalized learning vs. control) and time (2020–2021 MAP fall, winter, and spring) on students' progress. However, the analysis did not show any significant improvement resulting from the interaction

between intervention status and measurement point. Therefore, personalized learning alone may not lead to sufficient improvements in academic performance.

The PDSA (Plan-Do-Study-Act) committee introduced the Mentor Walkthrough form to address the issue of facilitating communication between mentors and students. This allowed teachers to encourage goal-setting, enhance student data awareness, and promote motivation. The findings reinforced the earlier results and showed that after incorporating the Mentor Walkthrough form, higher outcomes were observed in the control group in the 2022–2023 MAP testing. This may indicate traditional instruction is more effective than personalized learning strategies.

Future research should explore the effectiveness of personalized learning in other academic subjects, such as mathematics or science, and examine its impact on different demographic groups of students based on socioeconomic status, gender, or race. Such studies will provide valuable insights into the best ways to implement personalized learning.

Discussion

Personalized learning is an educational program that empowers students to create their own paths and make progress in their learning. However, it is not a cure-all that solves all academic issues. To guide students toward growth and progress, teachers must interpret data, collaborate with colleagues, and tailor intervention plans. A 2-year evaluation of personalized learning at a school in Texas found opportunities for refinement as the program focused on enhancing reading comprehension. Personalized learning provides teachers with a consistent framework in every classroom, making it easier to address the needs of weaker and stronger students. Although the COVID-19 pandemic influenced student data, it also created

opportunities for the implementation of self-directed learning, a cornerstone of personalized learning. Despite challenges, remote learning allowed students to be self-directed, but onboarding new students into the personalized learning program in a remote setting has affected outcomes. For measuring progress, MAP testing was implemented. The first MAP tests taken in 2020–2021 showed students' learning gaps were significantly wider than in typical years. Teachers responded by intervening with face-to-face instruction and virtual support. Small group instruction narrowed the academic gap in face-to-face environments, while virtual Zoom sessions allowed teachers to focus on struggling students in breakout rooms. Teachers worked harder than ever during the pandemic to support students and close academic gaps. They prioritized bringing students back to school safely despite the personalized learning curriculum. Collecting real-time student data allowed teachers to intervene more frequently and concentrate on the needs of struggling students. The COVID-19 pandemic has raised my interest in the impact of personalized learning. Before the pandemic-induced school closures, this school received several academic distinctions by customizing instruction based on individual needs. However, the pandemic disrupted this system and led to several challenges that intensified the gap in student comprehension. The shortage of small-group sessions resulted in insufficient intervention, and educators struggled to tackle students' needs arising from the disruptions.

To remedy these shortcomings, I proposed a personalized learning onboarding program that empowers teachers to identify and address gaps promptly. The COVID-19 pandemic has had far-reaching effects on education that will take years to remedy. Educators require additional support to meet their responsibilities while handling the academic challenges of lagging students. Professional development in personalized learning, small group instruction, and systematic

intervention in instances of student struggle will be crucial in achieving effective outcomes. Personalized learning and professional development are imperative for all staff members on campus. To achieve this, teachers must possess a comprehensive understanding of data utilization. Furthermore, small group instructional professional development sessions must be organized to support struggling students, which demands a different skill set than whole group instruction. Personalized learning is enhanced when students are provided with mentors who can guide them towards their goals. These mentors must possess a unique skillset that includes judgment-free listening and effective goal-setting techniques. While teachers are adequately trained to teach, professional development can help them develop the necessary skills to become effective mentors. In the study site district, personalized learning is currently being implemented in all middle schools and tested in fourth-grade classrooms. However, successful implementation in elementary schools will require significant financial investment to ensure all students have access to necessary technology. By drawing on data and feedback from previous implementations, the district can tailor professional development programs to support personalized learning implementation in elementary schools.

Recommendations for Practice and Further Study

Providing a practical learning experience can be achieved by allowing individuals to learn at their own pace while ensuring they have mastered current topics before progressing. By tailoring instruction to be dynamic and responsive, students receive personalized feedback that reinforces their learning. This principle is essential, as research shows children learn best when they can explore, experiment, and receive constructive feedback. Despite the significant potential benefits of personalized learning, many educational systems face challenges in implementing it.

A successful outcome requires extensive research and creative design implementation. Presently, the implementation of personalized learning is more theoretical than practical. Still, opportunities exist to overcome the barriers to its implementation and unlock its potential by utilizing innovative teaching practices. The district requires consistently implementing personalized learning, but the task seemed daunting. Without defining personalized learning components, achieving the best outcomes for their students would be hard. The district leaders must develop an innovative onboarding plan catering to each student's needs and preferences. Teachers need to be able to begin implementing personalized learning more effectively within the school system. Teachers need to be able to use different techniques, such as peer-to-peer collaboration or small group activities, allowing individual students more space and freedom when completing tasks while still providing guidance from experienced educators. To bring about favorable changes, it is crucial to establish a well-defined roadmap that can be easily followed by all individuals in order to attain success. This can be achieved through the initial step of developing a district logic map for personalized learning. By doing so, a solid foundation is laid for progress and growth.

Conclusion

To improve educational methodologies, it is imperative that one embrace a growth mindset when it comes to utilizing evidence-based data. By doing so, one cannot only minimize risks but also establish an environment that is flexible and innovative in its approach to teaching and learning. While personalized learning did not yield significant improvements in reading comprehension according to the study results, it is crucial to recognize negative research findings as valuable guideposts to help navigate new educational landscapes. Rather than viewing them as

failures, these outcomes provide essential insights. In this sense, they can be seen as crucial safety features enabling educators to proceed confidently.

The data suggest that personalized learning may not be the most effective approach for improving student reading comprehension. While some academic gaps may have been closed with personalized learning, the control group consistently outperformed the personalized learning group in the 2022–2023 MAP tests. On the other hand, implementing individualized mentoring strategies through a school-wide mentoring program at a school in Texas showed moderate success. Although the control group still outperformed the personalized learning group, the focus on supporting teachers in their mentorship conversations with each student was beneficial. Schools can find effective ways to improve student reading comprehension and academic performance with continued research and experimentation. It is crucial to consider the effectiveness of different teaching approaches and tailor them to each student’s specific needs.

Dweck and Yeager (2019) proposed that embracing a growth mindset has the potential to enhance human capabilities and direct behavior. This can be achieved by introducing instructional tasks and practices into an organization’s environment, leading to favorable influences on individuals’ beliefs, values, and actions and better learning outcomes. However, developing a growth mindset at both the individual and organizational levels is essential to realizing full potential. As a result, cultivating a growth mindset should be viewed as a crucial aspect of an organization’s culture, resulting in remarkable improvements in productivity, personal development, and overall success.

Balancing delicate support and guidance while instilling personal responsibility for academic success makes mentoring at-risk youth challenging. This perspective is supported by

the benefits of adopting a growth mindset in academic settings. Educators who approach data analysis with a growth mindset are more likely to identify innovative teaching and learning approaches, even in the face of adverse outcomes. By prioritizing evidence-based research, this commitment can drive innovation and pave the way for more effective educational methodologies (Dweck, 2016).

However, it is also important to acknowledge that fostering a growth mindset requires significant effort and ongoing commitment (Dweck, 2016). Educational institutions must prioritize the development of robust data collection and analysis protocols and establish systems for sharing and using research findings effectively. Only by doing so can one create a sustainable culture of exploration and innovation that can truly enhance educational outcomes both for students and educators.

Despite its potential to revolutionize the education system, personalized learning has seen mixed results due to a need for more direction and guidance (Duncan, 2013). With this in mind, further research is needed for an evidence-based look at how well it improves student reading comprehension when implemented with fidelity. It will be interesting to see if personalized learning can live up to its hype as research continues on what could become significant educational advances since mass schooling began centuries ago.

Teachers and students can benefit from a more individualized educational experience by shifting towards personalized learning. Technology is an invaluable tool to support this implementation; however, it should be seen as one of many sources of personalization—departing from the factory-style education system offers further opportunities for learner growth (Basham et al., 2016). This personalized learning model studied is designed to provide students

with meaningful connections between classroom topics and real-world applications. It utilizes a multi-faceted approach, encompassing whole group instruction, small groups, and one-on-one mentorship from teachers who strive to help individuals set goals for success while guiding the journey. Through weekly meetings focusing on academic challenges and emotional growth experiences, this program allows instructors ample opportunity to gauge progress and offer support when necessary.

Ultimately, personalized learning is an exciting new development in the education system with great promise and potential. As more research continues its effects and implementation, one can look forward to continued improvements in student reading comprehension and overall achievement. With the proper guidance from educators who understand the benefits of individualized instruction, personalized learning could be just what educational systems need—an effective way to ensure all students are given a chance to reach their maximum potential.

In conclusion, the key to personalized learning's success lies in its implementation and the support from experienced educators with a passion for helping students of all backgrounds reach their full potential. With the proper guidance, personalized learning could truly revolutionize education as one knows it. With personalized learning becoming more popular in classrooms around the world, it is up to teachers and administrators alike to make sure they have the resources and understanding needed for successful implementation by their students (Gallagher, 2014). Teachers need proper training and guidance to ensure that students understand the principles of personalized learning and how to use them in their daily schoolwork. Administrators should also provide teachers with support and resources for implementing personalized learning in the classroom, such as instructional materials, technology, and

professional development opportunities. With this kind of help from teachers and administrators, personalized learning can become an effective tool for improving student reading comprehension and overall academic performance.

Data Management Plan

The study was approved by Dr. Julie Delello and Dr. Michael Odell. All participants were protected by not using any personally identifiable information. Data was stored in a secure location, and only I had access.

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Appendix A

Surveys

Teachers Competency towards Navigate Personalize Learning Platform (1-Never, 2- Seldom, 3-about half of the time, 4-usually, 5-always)						
Teacher Competency		1	2	3	4	5
	I post student announcements to inform expectations and anything new.					
	I use the curriculum page to help facilitate student learning.					
	When assigning projects on the platform, I can support students learning.					
	I assign Focus and Content Assessments for my students.					
	I pull data from the platform to support student learning.					

Teacher usage of reading strategies spiraled into content/Cross-Curricular projects and concept units. (1-Never, 2- Seldom, 3-about half of the time, 4-usually, 5-always)						
Teacher usage of Reading Strategies		1	2	3	4	5
	I spiral reading strategies into my lesson cycle.					
	I use the Cognitive Rubric to help plan my lesson.					
	During projects-learning, students are exposed to reading strategies.					
	I can find the Cognitive Rubric on the platform.					
	I can teach my peers reading strategies.					

Teacher Competency towards utilizing MAP data (1-Never, 2- Seldom, 3-about half of the time, 4-usually, 5-always)						
MAP		1	2	3	4	5
	I know how to access MAP data.					
	I create small groups using MAP data.					
	I tailor my lesson to each student with MAP data.					
	I group students based on MAP data.					
	I see progress when MAP data is used to pull small groups.					

Appendix A (Continued)

Teacher Competency towards Using Real-Time Data to Instantly Intervene when Students Struggle to Pull Small Groups (1-Never, 2- Seldom, 3-about half of the time, 4-usually, 5-always)						
Small Group and Workshops		1	2	3	4	5
	I plan for small group instruction within my lesson cycle.					
	I plan before pulling a small group to support student misunderstanding.					
	I use data from the platform to pull small groups.					
	There is progress when students are pulled into small groups.					
When students are pulled into a small group, I know how to intervene to close the learning gap.						

Teacher Competency towards Mentoring (1-Never, 2- Seldom, 3-about half of the time, 4-usually, 5-always)						
Mentoring		1	2	3	4	5
	I visit with all my mentee case load.					
	I know how to converse with students during each mentor session.					
	I am able to set goals for each mentee					
	I can listen to students both academically and non-academically					
I can have crucial conversations regarding not meeting student goals.						

Appendix B

Focus Group Questions

Broad themes	Questions
Perceived advantages and disadvantages of personalized learning	<p>What are the specific benefits?</p> <p>What are the potential challenges?</p>
Students on computers	<p>How do you feel about it?</p> <p>Any changes you see from your experience with the student with or without devices?</p>
Data from personalized learning	<p>How often do you pull small group instruction to intervene when students struggle?</p>
GLT collaboration	<p>How effective are your meetings?</p>
GLT norms and expectations	<p>Do you feel about the meeting?</p> <p>Do you find value in meeting weekly?</p> <p>Is there enough time in GLT to cover everything?</p>
Reading comprehension	<p>Do you believe personalized learning improves reading comprehension?</p>

Appendix C

Semi-Structured Interview Questions

1. Do you enjoy being a teacher in the personalized learning classroom?
2. Tell me your thoughts about personalized learning vs. traditional teaching regarding the advantages and disadvantages of student learning?
3. How do you prepare to teach a lesson in a personalized classroom?
4. What does small group instruction look like in the personalized learning world?
5. What do you like about mentoring students?
6. Tell me about a time when you felt a win in a personalized learning classroom.
7. Is it rewarding?
8. Do you think there is such a thing as too much screen time in a personalized learning environment?
9. What would you say is the most important advice you can give a principal regarding students on their technology all day?
10. Where do you think personalized learning is heading in education?
11. Do you think other schools will adopt personalized learning?

Appendix D

Comparison Schools 1

2022 Campus Comparison Group

ISD

Campus Type: Middle School
Sorted by District Name

Campus Name	District Name	Grade Span	Number of Students	% Econ Disadv	% EL	Mobility Rate	% Early College HS	% Special Ed
	ISD	05-06	564	76.1	35.6	11.3	0.0	16.1
1 HOUSTON ACADEMY (101902062)	ALDINE ISD	05-06	397	89.2	21.9	11.5	0.0	8.3
2 MILLER INT (101903144)	ALIEF ISD	05-06	824	82.6	40.5	13.8	0.0	12.6
3 BOWIE 6TH GRADE CAMPUS (188901052)	AMARILLO ISD	06-06	348	88.5	26.7	12.4	0.0	17.2
4 TRAVIS 6TH GRADE CAMPUS (188901053)	AMARILLO ISD	06-06	315	89.2	43.8	10.2	0.0	14.3
5 BASTROP INT (011901104)	BASTROP ISD	05-06	781	68.8	31.2	12.9	0.0	14.2
6 CEDAR CREEK INT (011901108)	BASTROP ISD	05-06	943	78.7	54.4	12.3	0.0	15.5
7 JANE LONG (021902045)	BRYAN ISD	05-06	1,021	90.7	43.6	14.6	0.0	17.3
8 SAM RAYBURN (021902046)	BRYAN ISD	05-06	1,184	75.9	24.7	11.2	0.0	16.3
9 BOZMAN INT (170902078)	CONROE ISD	05-06	953	60.5	29.2	14.1	0.0	13.4
10 GRANGERLAND INT (170902068)	CONROE ISD	05-06	1,209	77.0	42.8	16.4	0.0	13.9
11 COLLINS INT (175903042)	CORSICANA ISD	05-06	864	77.9	36.3	7.9	0.0	11.9
12 DUNBAR MIDDLE (084901042)	DICKINSON ISD	05-06	666	74.8	29.6	13.5	0.0	19.1
13 JOHN AND SHAMARION BARBER MIDDLE (084901043)	DICKINSON ISD	05-06	585	64.8	20.9	12.5	0.0	15.6
14 DUMAS INT (171901106)	DUMAS ISD	05-06	618	72.5	41.7	10.4	0.0	11.3
15 GLENN C HARDIN INT (057907109)	DUNCANVILLE ISD	05-06	509	86.4	39.9	11.3	0.0	12.8
16 GRACE R BRANDENBURG INT (057907110)	DUNCANVILLE ISD	05-06	397	84.9	24.9	13.7	0.0	16.1
17 H BOB DANIEL SR INT (057907108)	DUNCANVILLE ISD	05-06	490	82.0	25.3	10.8	0.0	14.3
18 DAVID YBARRA FINE ARTS ACADEMY (108903043)	EDCOUCH-ELSA ISD	06-06	282	91.5	31.6	6.1	0.0	15.2
19 ELGIN INT (011902042)	ELGIN ISD	05-06	690	70.9	48.6	11.0	0.0	14.6
20 WEDGWOOD 6TH GR SCH (220905043)	FORT WORTH ISD	06-06	341	90.3	33.1	17.3	0.0	12.9
21 GAINESVILLE INT (049901104)	GAINESVILLE ISD	05-06	441	63.7	31.3	10.0	0.0	11.6
22 HEREFORD J H (059901042)	HEREFORD ISD	06-07	580	74.5	24.3	7.6	0.0	11.4
23 HUNTSVILLE INT (236902041)	HUNTSVILLE ISD	05-06	809	64.8	19.7	10.6	0.0	18.9
24 IDEA LAKE HOUSTON COLLEGE PREPARATORY (108807207)	IDEA PUBLIC SCHOOLS	06-06	123	84.6	35.8	7.4	0.0	12.2
25 NICHOLS INT (037904043)	JACKSONVILLE ISD	05-06	662	83.7	44.1	12.7	0.0	15.7
26 NOEMI DOMINGUEZ EL (031905105)	LA FERIA ISD	05-06	408	77.7	18.9	4.8	0.0	16.9
27 MAGNOLIA INT (170906061)	MAGNOLIA ISD	05-06	969	62.4	24.0	12.6	0.0	13.6
28 CROSS TIMBERS INT (220908202)	MANSFIELD ISD	05-06	572	69.4	15.2	11.6	0.0	17.3
29 P E WALLACE MIDDLE (225902042)	MOUNT PLEASANT ISD	05-06	663	82.1	56.4	8.7	0.0	15.2
30 CROCKETT INT (139909112)	PARIS ISD	05-06	527	79.1	20.3	14.4	0.0	15.6
31 CARTER LOMAX MIDDLE (101917139)	PASADENA ISD	05-06	636	67.3	31.4	11.8	0.0	12.9
32 KELLER MIDDLE (101917144)	PASADENA ISD	05-06	646	87.5	42.4	15.6	0.0	14.6
33 MARSHALL KENDRICK MIDDLE (101917145)	PASADENA ISD	05-06	727	85.8	39.3	17.0	0.0	14.3
34 MEJILLO MIDDLE (101917140)	PASADENA ISD	05-06	606	61.9	21.6	10.2	0.0	15.2
35 MORRIS MIDDLE (101917135)	PASADENA ISD	05-06	714	78.7	28.2	10.9	0.0	15.5
36 RICK SCHNEIDER MIDDLE (101917142)	PASADENA ISD	05-06	664	90.2	47.9	17.3	0.0	14.5
37 PINE TREE MIDDLE (092904043)	PINE TREE ISD	05-06	701	68.5	18.1	14.8	0.0	16.4
38 PITTSBURG INT (032902105)	PITTSBURG ISD	05-06	334	80.8	20.7	12.3	0.0	11.4
39 SAVANNAH HEIGHTS INT (015909105)	SOMERSET ISD	05-06	562	88.4	29.5	14.5	0.0	15.3
40 FRY INT (084906101)	TEXAS CITY ISD	05-06	812	82.1	17.2	11.8	0.0	20.3
Comparison Group Average			639	78.3	31.9	12.0	0.0	14.6

Appendix E

Comparison Schools 2

2022 Campus Comparison Group

ISD

Campus Type: Middle School
Sorted by District Name

Campus Name	District Name	Grade Span	Number of Students	% Econ Disadv	% EL	Mobility Rate	% Early College HS	% Special Ed
	ISD	05-06	684	84.4	56.7	17.3	0.0	13.6
1 ALIEF MIDDLE (101903041)	ALIEF ISD	06-08	897	87.3	61.8	19.2	0.0	11.1
2 BUDEWIG INT (101903145)	ALIEF ISD	05-06	1,137	83.6	41.6	26.3	0.0	15.0
3 KLENTZMAN INT (101903141)	ALIEF ISD	05-06	811	82.9	68.7	21.6	0.0	15.5
4 MATA INT (101903143)	ALIEF ISD	05-06	808	86.4	66.3	14.2	0.0	14.9
5 MILLER INT (101903144)	ALIEF ISD	05-06	824	82.6	40.5	13.8	0.0	12.6
6 OWENS INT (101903140)	ALIEF ISD	05-06	814	84.4	80.2	18.8	0.0	13.3
7 YOUNGBLOOD INT (101903142)	ALIEF ISD	05-06	863	84.1	60.6	13.0	0.0	14.3
8 JOHNNY N ALLEN-6TH GRADE CAMPUS (188901050)	AMARILLO ISD	06-06	205	91.7	40.5	16.1	0.0	15.6
9 TRAVIS 6TH GRADE CAMPUS (188901053)	AMARILLO ISD	06-06	315	89.2	43.8	10.2	0.0	14.3
10 CEDAR CREEK INT (011901108)	BASTROP ISD	05-06	943	78.7	54.4	12.3	0.0	15.5
11 JANE LONG (021902045)	BRYAN ISD	05-06	1,021	90.7	43.6	14.6	0.0	17.3
12 GRANGERLAND INT (170902068)	CONROE ISD	05-06	1,209	77.0	42.8	16.4	0.0	13.9
13 TRAVIS INT (170902070)	CONROE ISD	05-06	596	92.1	57.7	17.2	0.0	15.9
14 COLLINS INT (175903042)	CORSICANA ISD	05-06	864	77.9	36.3	7.9	0.0	11.9
15 EWELL D WALKER MIDDLE (057905056)	DALLAS ISD	06-08	781	86.8	48.9	13.7	0.0	15.7
16 ROBERT T HILL MIDDLE (057905050)	DALLAS ISD	06-08	824	89.3	52.7	12.4	0.0	11.5
17 YOUNG MEN'S LEADERSHIP ACADEMY AT FRED F FLORENCE	DALLAS ISD	06-08	653	91.3	62.0	14.8	0.0	15.8
18 DUMAS INT (171901106)	DUMAS ISD	05-06	618	72.5	41.7	10.4	0.0	11.3
19 GLENN C HARDIN INT (057907109)	DUNCANVILLE ISD	05-06	509	86.4	39.9	11.3	0.0	12.8
20 ELGIN INT (011902042)	ELGIN ISD	05-06	690	70.9	48.6	11.0	0.0	14.6
21 LEADERSHIP ACADEMY AT FOREST OAK 6TH GRADE (220905)	FORT WORTH ISD	06-06	349	98.0	52.7	22.0	0.0	9.5
22 COBB 6TH GRADE CAMPUS (101910045)	GALENA PARK ISD	06-06	1,016	88.7	44.4	8.2	0.0	11.9
23 JAMES FANNIN MIDDLE (057910051)	GRAND PRAIRIE ISD	06-08	704	90.8	60.8	12.9	0.0	11.9
24 IDEA EDGECLIFF COLLEGE PREPARATORY (108807202)	IDEA PUBLIC SCHOOLS	06-07	239	82.8	45.2	10.9	0.0	12.1
25 IDEA HARDY COLLEGE PREPARATORY (108807093)	IDEA PUBLIC SCHOOLS	06-07	265	83.0	50.9	9.9	0.0	9.4
26 IDEA SOUTHEAST COLLEGE PREPARATORY (108807206)	IDEA PUBLIC SCHOOLS	06-06	116	87.1	50.9	7.4	0.0	14.7
27 IDEA SPEARS COLLEGE PREPARATORY (108807094)	IDEA PUBLIC SCHOOLS	06-07	254	74.4	50.0	8.6	0.0	9.8
28 NICHOLS INT (037904043)	JACKSONVILLE ISD	05-06	662	83.7	44.1	12.7	0.0	15.7
29 KIPP MOSAIC ACADEMY SCHOOL (227820063)	KIPP TEXAS PUBLIC SCHOOLS	05-07	418	91.6	45.9	18.3	0.0	4.3
30 KIPP PASEO PREPARATORY SCHOOL (227820045)	KIPP TEXAS PUBLIC SCHOOLS	05-07	208	89.4	57.7	16.7	0.0	10.1
31 DECKER MIDDLE (227907042)	MANOR ISD	06-08	607	87.8	55.8	15.5	0.0	12.9
32 P E WALLACE MIDDLE (225902042)	MOUNT PLEASANT ISD	05-06	663	82.1	56.4	8.7	0.0	15.2
33 BOBBY SHAW MIDDLE (101917143)	PASADENA ISD	05-06	681	91.0	55.9	18.1	0.0	16.3
34 DE ZAVALA MIDDLE (101917136)	PASADENA ISD	05-06	558	92.1	57.5	15.1	0.0	13.4
35 FRED ROBERTS MIDDLE (101917147)	PASADENA ISD	05-06	564	76.1	35.6	11.3	0.0	16.1
36 KELLER MIDDLE (101917144)	PASADENA ISD	05-06	646	87.5	42.4	15.6	0.0	14.6
37 MARSHALL KENDRICK MIDDLE (101917145)	PASADENA ISD	05-06	727	85.8	39.3	17.0	0.0	14.3
38 NELDA SULLIVAN MIDDLE (101917146)	PASADENA ISD	05-06	534	94.6	49.8	8.9	0.0	14.0
39 RICK SCHNEIDER MIDDLE (101917142)	PASADENA ISD	05-06	664	90.2	47.9	17.3	0.0	14.5
40 SPRING OAKS MIDDLE (101920046)	SPRING BRANCH ISD	06-08	669	91.0	59.0	17.5	0.0	14.1
Comparison Group Average			648	85.8	50.9	14.2	0.0	13.4

Appendix F

Personalized Learning Walkthrough Form

Instructional Look-Fors Framework - Walkthrough Tool

Instructional Look-Fors Framework: Walkthrough Tool

Look-Fors - Student Actions <i>What will you see / hear students doing / saying?</i>	Instructional Strategies- Teacher Actions <i>What teacher actions (Instructional Strategies) will we look for that lead to the student actions</i>	Questions to ask Students / Specific Evidence to Collect
Look For 1: _____ - Specific Student Actions/Evidence:		
Look For 2: _____ - Specific Student Actions/Evidence:		

Teacher: Grade/Subject: Project/Unit Context: Relevant Data:	Evidence:
Teacher: Grade/Subject: Project/Unit Context: Relevant Data:	Evidence:

Appendix F (Continued)



MENTORING LOOK FORS



STUDENT EFFICACY	Teachers allow opportunities for both academic and nonacademic conversations.	
	Teachers support students in avoiding self-limiting statements and instead utilizing growth mindset language and positive self-talk.	
STUDENT EXPECTATIONS	The teacher guides students through the SDL cycle.	
	Students will create and input SMART goals in the Platform.	
	Students can articulate how they have prepared for content assessments and how they have determined they are ready to take them	
FEEDBACK	The teacher provides constructive feedback on the student's progress towards their plans and goals.	
	Teachers are able to support students in articulating ways in which previous successes and failures have informed their learning process.	