Walden University

College of Education

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Ayesha Wallace

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2022

Abstract

General Education Teachers' Use of Reading Strategy Interventions to Support Low-Scoring Sixth-Grade Readers

by

Ayesha Wallace

MA, Walden University, 2016

BS, Long Island University, 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Reading, Literacy, Assessment & Evaluation

Walden University

May 2022

Abstract

More than 50% of sixth-grade students at an urban middle school in the Southeastern United States scored below the 50th percentile (B50PR) of expected student outcomes on the Measures of Academic Progress (MAP) Growth reading assessment. The problem to addressed in this study was that many sixth-grade students in the United States lack proficiency in reading. The purpose of this basic qualitative study was to explore sixth-grade teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the MAP Growth reading assessment. Resnick's cognitive theory of instruction was the conceptual framework for this study and the basis for three research questions regarding teachers' use of recall of prior knowledge, application of metacognitive strategies, and assimilation of new text-based knowledge into the student's existing knowledge base, when teaching struggling readers. Purposeful sampling was used to recruit 10 sixth-grade language arts, social studies, science, and mathematics general education teachers. Data were collected through semistructured interviews, then coded and analyzed using thematic analysis. Results showed that teachers across all academic subject areas described using cognitive reading strategies, suggesting that teachers have the knowledge and the skills to use these strategies in their instruction of struggling readers. Future research should further explore how teachers implement strategies that help struggling readers and which cognitive reading strategies are the most effective with B50PR students. Positive social change may result from this study if teachers are inspired and supported to address the reading struggles of students by using the cognitive reading strategies described in this study.

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Dedication

I dedicate this dissertation to my grandmother Marjorie Gibbs, my mother Audrey Carthen and to my fathers Robert Carthen and Dr. Bandele A. Omokoku and to my three beautiful sons Savion, Myles, and Bryce Cummings.

Acknowledgments

First, I am eternally grateful to my family, colleagues and Walden faculty who supported me on this amazing doctoral journey. I was honored and fortunate to partner with Dr. Patricia Anderson who consistently supported me throughout the irritative process and helped me navigate through life while writing a dissertation. I am thankful for my second committee member, Dr. Ellen Scales, for her amazing encouragement and academic content insightfulness and to Dr. Cheryl Burleigh, my University Research Reviewer (URR) committee member, whose intuition and acumen aided in the completion of this study. I would like to acknowledge my father Dr. Bandele A. Omokoku for his unwavering love and support. Thank you, Papa, for paving a way for me and being a steadfast supporter of my education. Your contribution to this world is invaluable. Lastly, to my queen-mother, Audrey Carthen, this is for you.

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Chapter 1: Introduction to the Study

The focus of this study was the perspectives of sixth-grade general education teachers in one state in the Southeastern United States regarding cognitive reading strategies that they may have used in support of students who score below 50 percent (B50PR) on the Northwestern Evaluation Association Measure of Academic Progress (NWEA MAP) Growth reading assessment. Reading strategy interventions may include activation of students' prior knowledge, direct instruction of cognitive reading strategies, and assimilation of knowledge gained through reading (Resnick, 1985). This study was needed because `students who score low in reading are less likely to be successful in school or future employment than are students who score at or above grade level (Hammerschmidt-Snidarich et al., 2019). Knowing teachers' perspectives regarding the use of cognitive reading strategy interventions with B50PR students may provide insight into sixth grade teachers' use of reading strategy interventions. Positive social change may result from an increased understanding of teacher perspectives, which may inform resources and supports to facilitate cognitive reading strategy intervention in the general education setting, and improvements in B50PR student reading success. In this chapter I present the study's problem statement, purpose, research questions, and the conceptual framework that guided the study. I provide a rationale for the research significance and design, define a set key of terms, and elucidate the study's assumptions, scope, delimitations, and limitations.

Background

The intended purpose of reading is to draw the meaning from written text that an author is attempting to convey (Jones et al., 2016). Reading acquisition is essential to academic success, and reading failure often results in harsh consequences for students (Jamshidifarsani et al., 2019). Most children display readiness and natural effortlessness in reading skill attainment, while others experience prolonged reading skill deficits and fall far below expectations (Clarke et al., 2017).

During the mid-1900s, many states began implementing end-of-grade reading comprehension assessments (Morris et al., 2017). The NWEA MAP Growth reading assessment provides educational stakeholders with an accurate measurement of students' reading growth and proficiency (NWEA MAP, 2021). End of Grade (EOG) norm-referenced evaluations such as the MAP Growth reading assessment are currently being used as a litmus test to calculate the percentage of students in a school or state who are meeting grade-level reading comprehension expectations (Morris et al., 2017). Hence, the importance of evidence-based strategy acquisition and generalization for students with reading challenges. In the United States, students' reading deficiencies at a particular time often determine the intensity of intervention that they will receive (Suggate, 2016). However, Jones et al. (2016) stated that despite expansive efforts such as Response to Intervention (RTI), students with reading challenges may fail at comprehending rigorous texts in classrooms and on standardized tests because these texts are presented on students' grade-level rather than on students independent reading levels (Jones et al., 2016).

The NWEA MAP reading tests measures readers' current status of reading achievement and is used by education stakeholders to make formative and summative data-driven decisions regarding what students are able to read and comprehend. The typical practice of using assessment data to target and match low readers who score below the 50th percentile (B50PR) with appropriate levels of intervention is of long-term focus (Suggate, 2016). Moreover, Jones et al. (2016) recommended that interventions provided through small group or individual interventions target reading skills after systemic investigation of students underlying deficit areas and that student progress monitored over time. According to Babayigit (2019), regardless of whether students are taught to use cognitive reading strategies in the fifth grade, the utilization of such strategies are dependent upon the sixth-grade classroom teacher. Similarly, when sixth-grade students are taught strategies in intervention classrooms, the ability to use them in general education classrooms is dependent on generalist teachers (Babayigit, 2019). Students' reading progress may be influenced by teacher instruction and supports (Rubie-Davies et al., 2018). However, the effectiveness of students reading strategy use during the process of reading in general education classrooms, depends on their teachers' instructional practices and perspectives regarding metacognitive awareness and reading strategies (Ulu, 2019). Therefore, understanding how teachers regard the use of cognitive strategies and students who score B50PR on the NWEA MAP reading assessment, in their classrooms is important. Jones et al. (2016) identified that more information is needed on how middle school teachers incorporate cognitive related strategies into their practice to support students with reading challenges in the general education classroom.

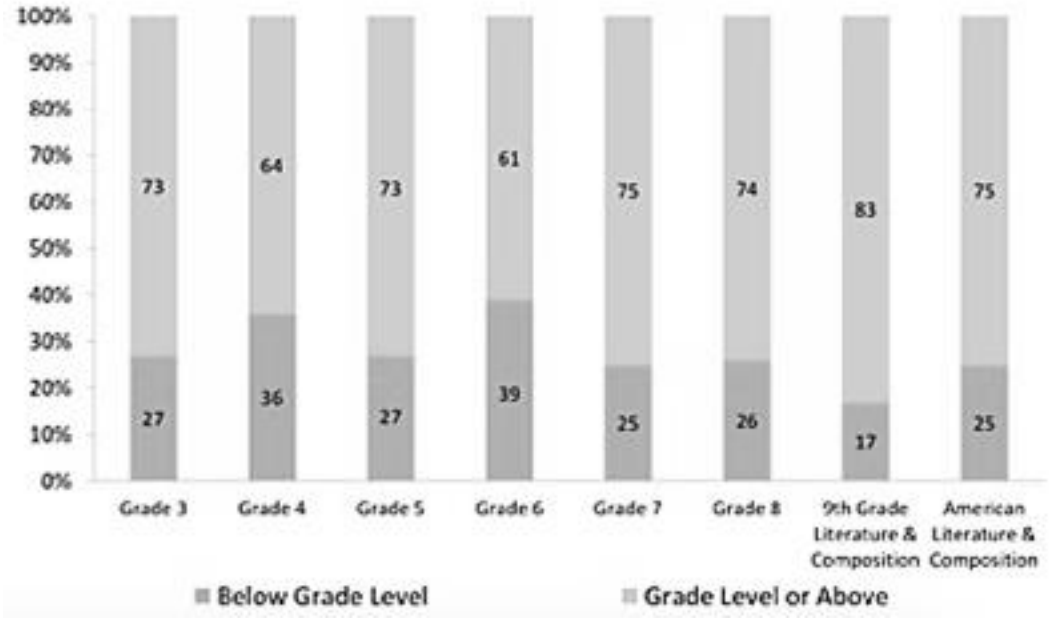
Crone et al. (2019) suggested that future research focus on how teachers implement reading supports for sixth-grade students with reading challenges.

Problem Statement

The problem that I addressed in this study is that many sixth-grade students in the United States lack proficiency in reading. In particular, 55% of sixth-grade students at an urban middle school in in the Southeastern United States scored below 50th percentile on the Fall 2019–Spring 2020 reading NWEA MAP Achievement Status and Growth Summary report. According to school district internal directives, these students were required to attend reading intervention sessions rather than scheduled extra-curricular activities. Concurrently, the problem of low reading scores for sixth grade students was identified across the state, in the Spring 2018 end of grade reading assessment. Among grades 3 through 9 in the target state, the sixth grade had the highest percentage of students reading below expected proficiency on the end-of-grade reading assessment, according to the target state assessment report, see Figure 1.

Figure 1

Target State End-of-Grade Assessment Results by Selected Grades, 2018



This raises the question of how sixth grade general education teachers at the study site provide instructional cognitive reading strategy supports for students who scored B50PR on the MAP Growth reading assessment. According to the principal in one middle school in the target district, it is unclear how generalist teachers provide accessible cognitive reading strategies in support of B50PR students.

Bippert and Harmon (2017) indicated little is known nationally about the cognitive strategies' teachers use to support sixth-grade students who read below grade level. Siuty et al. (2018) proposed that scientific investigations be conducted to explore middle school teachers' reading-related decisions when supporting struggling readers in their classroom. Bratsch-Hines et al. (2017) indicated there are insufficient qualitative data on why teachers make distinct instructional choices for reaching struggling readers

in their classrooms. Bippert and Harmon (2017) noted that, despite funding for research-based reading interventions, many students continue to read far below grade level, suggesting that teacher supports may be inadequate. However, without a clear understanding of how teachers support sixth grade students who score B50PR, a gap in practice persists. Therefore, to address the problem inherent in the failure of over half of sixth grade students in the target school to achieve 50PR on the NWEA MAP Growth reading assessment, the purpose of this study was to explore sixth grade general education teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment.

Purpose

The purpose of this basic qualitative study using interviews was to explore sixth-grade general education teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. In this basic qualitative study, I interviewed 10 sixth-grade general education teachers who teach academic subjects, such as English language arts, social studies, science and mathematics, their perspectives regarding cognitive reading strategy support for students who score B50PR on the NWEA MAP Growth reading assessment. Teachers were invited from a single school within a district located in the Southeastern United States.

Research Questions

Research Question 1 (RQ1): What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading

assessment, regarding activation of prior knowledge in preparing students for reading text-based material?

Research Question 2 (RQ2): What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding direct instruction of actions students can apply when reading text-based material?

Research Question 3 (RQ3): What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding support for assimilation into the student's existing knowledge base to new knowledge offered by text-based material?

Conceptual Framework for the Study

I used Resnick's cognitive theory of instruction (Resnick, 1985) as the conceptual framework for this study. This theory offers a logical premise for exploring how teachers support struggling readers and propose three primary reading tasks that teachers can activate that student can acquire as reading strategies during instruction: (a) recall of prior knowledge, (b) application of metacognitive strategies, and (c) assimilation of new text-based knowledge into an existing knowledge base. According to Resnick (1985), a reader confronting literary and informational texts brings to the reading task knowledge about the situation depicted in the text and could be prompted to recall that knowledge and so enhance the personal relevance of the material about to be read. In addition, the reader can be guided to apply reading strategies, such as identifying meaning units, applying context cues, asking questions of the text, and self-monitoring understanding, to engage

the reader's curiosity and feeling of self-efficacy. Finally, a teacher can assist the reader in evaluating what was read in the context of prior knowledge and expand the reader's understanding of the material and of the topic or situation in general. Teachers of struggling readers may be successful in supporting struggling readers in general education classrooms when they offer students opportunities to tap into prior knowledge, provide students with direct instruction in strategy use, and support the building of new knowledge and a feeling of accomplishment.

Nature of the Study

I conducted this study following a basic qualitative design using interviews. Qualitative interviews are adaptable to different conditions and conducive to the flexibility required to examine individual events (Flick et al., 2004). Rubin and Rubin (2012) stated that semistructured interviews conducted by the researcher encourage interviewees to answer open-ended questions, in-depth on a specific topic such as those related to the research questions. Rubin and Rubin (2012) also stated that both semistructured and unstructured interviews include the use of probes for follow-up questions; however, researchers using semistructured interviews have more control over the interview. Therefore, considering these characteristics, I determined that the constructivist research paradigm as described by Guba and Lincoln (1994) was appropriate to this study. With the help of participants I constructed an understanding about the problem of focus in this study. Alternative qualitative method research designs that did not align with this study are ethnography, narrative inquiry design, and phenomenology. Ethnography positions the researcher in an interpretative role in

studying humankind and cultures (Thomas, 2017), which was not my aim for this study. In a narrative inquiry, the researcher conducts research and shares what they experience as a story (Hamilton et al., 2008). A phenomenological study is appropriate when the researcher is seeking to directly observe or participate in an experience in order to understand and interpret a broad scope depiction of individuals lived experiences (Moustakas, 1994). The purpose of this study did not include depiction of people's lived experiences, events, or emotions (see Van Manen, 2016).

The phenomenon of interest was the large proportion (55%) of sixth-grade students in the target district who scored B50PR the NWEA MAP Growth reading assessment. General education teachers in the target district in the Southeastern United States who teach language arts, social studies, science, and mathematics to sixth-grade students, including those students who score B50PR on the NWEA MAP Growth reading assessment, served as the participant group whose perspectives I explored (see Mayan, 2009). I conducted interviews by telephone or teleconferencing. Details about the interviewing process and interview questions are presented in Chapter 3.

Definitions

Cognitive Reading Strategy: cognitive strategies are internal processes that can be utilized for various activities requiring cognitive involvement, including (a) cognitive strategies in reading comprehension, (b) cognitive strategies in learning, (c) cognitive strategies in recall, and (d) cognitive strategies in thinking or solving problems (Suyitno, 2017). Cognitive strategies are ongoing mental activities used by readers to combine new knowledge with prior knowledge (Yang, 2011).

General education teacher: a teacher with a teaching degree from a university within a specific content area other than expertise or certification in Special Education (Green et al., 2020).

Informational text: nonliterary text such as textbooks, biographies, and reference materials, often used in a classroom and often content specific (Tortorelli, 2019).

Literary text: text also known as *narrative text* which typically includes a storyline with characters, setting, conflict, and a resolution (Tortorelli, 2019).

Metacognitive strategies: metacognitive strategies are direct and regulatory mental processes used by readers to monitor and evaluate their thinking (Yang, 2011). Metacognitive strategies involve planning, monitoring, and regulation activities that place before, during, and after any thinking act such as reading (Yang, 2011).

Assumptions

I assumed that study participants would be open and honest in their communication with me during interviews. My intention was for every teacher who participates to have at least 2 years' experience teaching B50PR students, including reading literary or informational texts. These assumptions were necessary because truthfulness and familiarity with the phenomenon under study are key elements of interview-based studies, in which data are provided by informants (see Ravitch & Carl, 2016).

Scope and Delimitations

The scope of the study included sixth-grade general education teacher perspectives regarding cognitive reading tasks used in support of students who score

B50PR on the NWEA MAP Growth reading assessment. I delimited the study to include 10 sixth-grade general education teachers working in the target school district in the Southeastern United States, who teach academic subjects that require students to read literary or informational texts. I excluded those who teach only special student populations, such as gifted and honors students or students with diagnosed learning challenges, and teachers of nonacademic subjects, such as physical education, art, or chorus. I also excluded teachers in other schools than the target school and other grades than sixth grade.

Limitations

One limitation of this study was that I conducted is during the COVID-19 pandemic. This event caused many schools in the target state to close temporarily, and to conduct instruction remotely for several months in the 2020–2021 school year. Teaching and learning were disrupted because of these instructional changes, issues in connecting with and using internet-based delivery methods, and issues with personal and family health and well-being (see Lessard & Puhl, 2021). These disruptions may have affected teacher perspectives regarding use of cognitive reading strategies in supporting B50PR readers.

Moreover, in accordance with public health measures to limit the spread of COVID-19, I conducted the data collection interviews via Zoom teleconferencing or by telephone, and not in person. Conducting interviews using Zoom or telephone may have reduced my ability to observe participants' body language and facial expressions. In addition, internet or cell phone connectivity issues may have affected the interview

process, as may have children or pets that shared the participants' location with them. I took care to conduct interviews from a quiet, private location in my home and I advised participants to choose a similar location, as free from distractions as possible. At the same time, because participants were free to participate in the interview from whatever location they choose, remote interviewing may have encouraged participation by teachers who might otherwise be unable to meet me in person.

Qualitative studies are affected by researcher bias because the researcher controls all aspects of the study and filters results through their own opinions and biases (Salazar, 1990). I attempted to control my biases by asking open-ended questions, avoiding imparting my opinion, and being careful when drawing conclusions and inferences when summarizing (see & Swisher, 1986). I practiced reflexivity and reflection by keeping field notes and a reflective journal. By doing this, I was able to keep separate from the data my own thoughts and biases (see Dowling, 2006). I actively considered and documented in field notes and my journal my thoughts, actions, and reactions that are distinct from the data themselves, as recommended by Dowling (2006).

Significance

Obtaining sixth-grade general education teacher perspectives regarding cognitive reading tasks used in support of students who score B50PR on the NWEA MAP Growth reading assessment may be significant because results may inform understanding of the application of cognitive reading strategies in support of below-grade-level readers in completing reading tasks. This findings of this study may increase understanding of how sixth-grade teachers regard evidence-based cognitive reading strategies that have been

proven beneficial in supporting students that have been identified as B50PR at risk at the time of screening. The results of this study may be used by teachers and administrators to inform their practice on behalf of students who score low on the NWEA MAP reading assessment. This study has the potential to encourage social change by providing insight into general education teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment.

Summary

My focus in this study was the gap in practice evident by failure of over half of sixth-grade students in the target state to achieve 50PR on the WNEA MAP Growth reading assessment. Cognitive reading strategies as described by Resnick (1985) were the conceptual framework that I used for this study. Cognitive reading strategies include activation of students' prior knowledge, direct instruction of metacognitive techniques, and assimilation of knowledge gained through reading into a student's existing understanding (Resnick, 1985). The purpose of this study was to explore sixth-grade teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. I conducted semistructured interviews with 10 general education sixth-grade teachers in the target state who teach subjects such as language arts, social studies, science, and mathematics, in which the reading of information and literary text is an essential part of the instructional process. Positive social change may result by providing insight into sixth-grade general education teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading

assessment. In Chapter 2, I review the existing body of literature pertaining to the B50PR student population and to cognitive reading strategy interventions that support readers who score at the B50PR level.

Chapter 2: Literature Review

The problem that I addressed through this study was that many sixth-grade students in the United States lack proficiency in reading. In particular, 55% of sixth-grade students at an urban middle school in the Southeastern United States scored B50PR on the Fall 2019–Spring 2020 MAP Achievement Status and Growth Summary report. The purpose of this study was to explore sixth-grade general education teachers' perspectives on reading strategy intervention in their classrooms to support students who scored B50PR on the NWEA reading measure of academic progress (MAP) in one school district in the Southeastern United States. The Every Student Succeeds Act (ESSA) of 2015 mandates schools to administer annual reading and mathematics tests to students Grades 3 through 8, hence many researchers have identified multiple correlations associated with students who score poorly on those reading skills measurements (Caleon & Ma, 2019; Merz et al., 2020; Paschall et al., 2018; Torppa et al, 2019; Trotter, 2020). Nonetheless, there has been no conclusive study exploring how sixth-grade general education teachers regard cognitive reading strategy interventions to support students who score B50PR on the NWEA MAP. In this chapter, I present a review of current literature regarding this study topic, the literature search strategy that I used, and the conceptual framework that underlies this study.

Literature Search Strategy

The databases and search engines I used in searching for literature relevant to this study included Education Research, ProQuest, Academic Search Complete, Google Scholar, and the Walden Library. I used these search terms: *general education, teachers,*

perspectives, reading, reading interventions, reading strategies, low scoring/ score below 50%, cognitive, metacognitive, support of students, sixth-grade students, struggling readers, poor readers, middle grades, Resnick conceptual framework, and *qualitative research design*. My iterative search process included using terms and concepts mentioned in scholarly articles I read in fresh searches.

Conceptual Framework

The conceptual framework for this study was Resnick's (1985) cognitive theory of instruction. Resnick suggested that teachers can support student learning by encouraging specific cognitive strategies, including recall of prior knowledge, application of metacognitive strategies, and assimilation of new text-based knowledge into an existing knowledge base. Recall of prior knowledge is important, according to Resnick, because connecting new information in literary and informational texts to what a student already knows or has experienced provides a sense of personal relevance about the new material. Application of metacognitive strategies involves techniques like isolating and understanding concepts, using context cues to discern meaning, being a curious and active reader who questions the text and reads for answers, and monitoring one's own understanding of the text and rereading portions that remain unclear. Application of metacognitive strategies is important, according to Resnick, because it engages a student's curiosity, sense of personal agency, and feeling of self-efficacy as a reader. Finally, Resnick suggested that assimilation of new information and experiences presented in a text is important in developing a student's understanding of the text and in supporting the student in applying this new information to future situations. Teachers of

struggling readers may be successful in supporting struggling readers in general education classrooms when they offer students opportunities to engage cognitive strategies that tap into students' prior knowledge, provide students with direct instruction in use of metacognitive strategies, and support the building of new knowledge and a feeling of accomplishment.

Resnick further defined the use of metacognitive strategies in what came to be called Accountable Talk (Resnick et al., 2018a). Three key features of accountable talk are rational justification of claims, accuracy in expression of ideas, and respect for the ideas and perspectives of others. Classroom and individual discussions that follow the principles of Accountable Talk reframe instruction and learning from a search for the right answer to a search for ideas and widen the range of permissible student participation. In addition, in Accountable Talk, students actively engage with the content instead of merely receiving in passively, and this engagement, and the necessity to express and defend ideas, leads to development of higher-level thinking. The goal is to create a teacher-led process that is student-owned, centered around a shared process of development of knowledge and understanding (Resnick et al., 2018b). However, Resnick et al. (2018a) and Zepeda et al. (2018) found that Accountable Talk is not used as often or with as much success as it might be, because teachers are unfamiliar with how to encourage free dialog about text and may revert to more convergent discussions.

Additional researchers have used Resnick's (1985) cognitive theory of instruction to inform research into reading, literacy, and language development. Tunmer and Hoover (2019) used the cognitive theory of instruction to inform a cognitive framework to

address and correct reading difficulties. The researchers highlighted the weaknesses of the U.S. National Reading Panel framework, which includes five instructional components but does not address how the components are interconnected or the cognitive value of each. Tunmer and Hoover (2019) also noted the need for a more advanced cognitive understanding of the process of learning to read and how that cognitive understanding can be incorporated into instructional strategies. Fisher et al. (2016) synthesized practices that educators report implementing into a three-phase model of learning which includes surface, deep, and transfer phases. The surface phase fosters acquisition and foundations of learning, the deep learning phase fosters interacting with material and content, and the transfer learning phase results in students' ownership of learning and application of new concepts to unfamiliar scenarios. Similar to Resnick (1985), Fisher et al. (2016) found classroom discussion and metacognitive strategies ranked in the top 15 of the 150 evidence-based teacher practices they examined. According to Fisher et al. (2016), classroom discussion most benefits students who struggle with reading comprehension. Hattie (2017) replicated Fisher et al.'s study and expanded the teacher practices from 150 to 250. Hattie also found that classroom discussion was the 15th most-effective teaching strategy.

I used Resnick's cognitive theory of instruction for my study because it shows that teachers can create an atmosphere in which students are engaged in their learning and feel empowered to have and express their own thoughts, as catalyst to comprehend what they read. The reading strategies and tasks identified by Resnick were central to this research. In this study of sixth-grade teacher perspectives regarding cognitive reading strategies

used in support of students who score P50PR, Resnick's work was useful in informing the study's research questions and is reflected in the review of current literature that follows below.

Literature Review Related to Key Variables

In this section, I shall present literature relevant to the topic of teacher perspectives of support for sixth grade students who read at the score B50PR on the NWEA MAP Growth reading assessment. Additionally, I reviewed literature that describes terms and characteristics associated with B50PR, cognitive reading strategies, supporting struggling readers, barriers to effective strategus and support, sixth grade reading struggles and support, factors that influence reading progress, specific-learning disabilities and cognitive deficits, school related factors, the social-emotional implications of reading difficulties. A summary will conclude the section.

Terms and Characteristics Associated with B50PR

Students like those who perform in the B50PR on the MAP NWEA reading assessment are referred to by researchers who have studied them as struggling readers (Hammerschmidt-Snidarich et al., 2019), poor readers (O'Connor et al., 2017), low-comprehending readers (Kraal et al., 2019), academically at-risk readers (Caleon & Wui, 2019), or low-achieving readers (Derringer, 2017). In this study, I will refer to students who score below the 50th percentile as B50PR students or struggling readers. B50PR students are not a homogeneous group (Morris et al., 2017). Many scholars agree that struggling readers may display co-occurring areas of reading related weaknesses. Specifically, B50PR fifth and sixth grade students may experience difficulty in one or

mixed reading dimensions, including decoding, fluency, comprehension, and vocabulary (Clemens et al., 2017; Morris et al., 2017). B50PR students are students that struggle in the area of reading and may have a deficit in the area of vocabulary acquisition, decoding skills, fluency, and/or reading comprehension.

Researchers (e.g. Bastug et al., 2017; Herbert et al., 2020; Kraal et al., 2020; Valdois et al., 2020; Zhao et al., 2018) also presented findings that in addition to poor foundational reading abilities, struggling readers may also experience attention deficits that affect their reading progress. Bastug et al. (2017) explained that struggling readers may also have difficulty with maintaining focus and attention, which limits their ability to read for an extended time (Bastug et al., 2017). Struggling readers may also display weaknesses in how much attention they could distribute to more than one letter or word simultaneously (Valdois et al., 2020; Zhao et al., 2018). Herbert et al. (2020) indicated that students who displayed reading comprehension deficits also produced poor quality writing that suggested specific issues that impede comprehension. In particular, these students struggled with writing about related events, such as those found in fictional stories; applying appropriate sentence structure; using appropriate mechanical conventions, such as capital letters and punctuation; and using correct grammar. Valdois et al. (2020) concluded that sixth-grade students who struggle in reading and spelling displayed cognitive deficits in their ability to identify and articulate the minor units of sound that make up a complete word. Further data suggests that struggling readers may have difficulty using cognitive strategies (Kraal et al., 2019).

Literature on the topic of struggling readers suggests that struggling adolescent readers may not have or employ cognitive skills that may serve as tools while reading in different academic scenarios. Englert and Mariage (2020) reported that, although understanding the central meaning an author is attempting to convey is a necessity in reading comprehension the ability to do so is often a cognitively demanding task for struggling readers. Struggling readers also demonstrate deficits related to cognitive factors, such as their ability to recall any prior information on a topic and their ability to use resources from the text to draw logical conclusions that increase their understanding of what the author is attempting to convey (Kraal et al., 2019). Rojas Rojas et al. (2019) highlighted that many struggling students had an insufficient content-specific vocabulary and were limited in their use of strategies that could have aided in their understanding of text.

Foundational Deficit Persistence from Early Elementary to Middle Grades

Reading difficulties can occur at all stages of reading progress and development; thus, support strategies for sixth-grade students should align with expected progress and competencies for their stage of development. Studying populations of sixth-grade students is a direct approach that researchers have used to better understand the prevalence of reading difficulties and the best means of supporting struggling sixth-grade readers (Bastug et al., 2017). Clemens et al. (2017) found that from a sample of 233 students from sixth through eighth grade in two schools (one rural, one suburban) in the Southwestern United States, 96% of students who read below the grade level average demonstrated poor foundational fluency, vocabulary, and comprehension skills. Lack of

fluency was found to be a more common issue than poor vocabulary; however, the most common challenge was co-occurring fluency and vocabulary difficulties. Clemens et al. concluded by emphasizing the need to address middle school reading difficulties at a foundational level of knowledge. Students are expected to have mastered basic word decoding skills, grade-level vocabulary, and reading comprehension by the end of fourth grade (Clemens et al., 2017). Deficits in these foundational skills result in poor reading performance in intermediate grades (Clemens et al., 2017).

Students who lack foundational reading skills tend also to show limited focus and lack of cognitive strategies. Rojas Rojas et al. (2019) found that many students who struggle with reading not only have a limited content-specific vocabulary but also have limited knowledge of strategies they can use to improve their understanding of the text. Rojas Rojas et al. noted limited vocabulary and other reading difficulties were evident by kindergarten in most students who demonstrated reading difficulties in later grade levels. Further, low reading achievement in early grade levels was associated with poor oral language abilities in later grade levels (Rojas Rojas et al., 2019). Bastug et al. (2017) emphasized the connection between reading struggles and difficulty maintaining focus and attention, thus limiting students' ability to read long texts. In a study of 40 fourth-grade students in an elementary school in Turkey, Bastug et al. found that fluent readers were more likely to read at the same rate for the duration of a text, while the reading rate of ineffective readers changed as they read. In addition, fluent readers became more accurate later in the text as they gathered more information that enhanced their understanding, but ineffective readers were more accurate in the first part of the text, and

their focus and comprehension of the text waned as they read further (Bastug et al., 2017) The findings of Rojas Rojas et al. and Bastug et al. highlight significant differences in foundational reading skills, and how underlying issues such as lack focus and comprehension speed may need to be addressed to improve reading comprehension and retention.

Struggling readers tend to exhibit multiple skill deficits that combine to undermine their reading progress. Morris et al. (2017) explored what caused 36 fifth graders and 29 sixth graders in Western North Carolina, in the United States to score below the 50th percentile on an annually administered standardized reading assessment; they found 62% of their participants could not independently read and answer text-based passages on their current grade level and many struggled with reading and comprehending text intended for students one grade below their current grade level. Babayigit, (2019) studied 388 sixth-grade general students in city of Yozgat, Turkey and concluded they typically used prereading strategies and paid attention to their thinking before and after reading text but less frequently implemented any metacognitive strategies during the act of reading. These students lacked during-reading strategies such as activating prior knowledge and self-to-text connections. Herbert et al. (2020) explained that struggling readers are more challenged by reading informational text, in which ongoing comprehension of ideas is necessary, than they are by reading text written to entertain readers. Bhattacharya (2020) concluded that middle-grade struggling readers typically can read monosyllabic words but struggle to read multisyllabic words including those that connect a root or base word with a prefix, or a suffix.

Cognitive deficits that significantly impact communication and reading are also a foundational source of reading difficulties among sixth graders (Herbert et al., 2020). Kraal et al. (2019) found a connection between cognitive deficits and reading struggles, including the inability to recall prior information on a topic or use textual resources to draw logical conclusions and derive meaning. In their study of readers who demonstrated high and low levels of reading comprehension, Kraal et al. reported cognitive deficits predicted students' reading patterns and reading level. Valdois et al. (2020) found that sixth-grade students who struggle to read and spell at their grade level displayed cognitive deficits that decreased their ability to identify and articulate the sound units embedded in words. Like Kraael et al., Valdois et al. found distinct cognitive profiles and patterns among struggling readers. In a longitudinal study, Herbert et al. (2020) found that many students who struggle with reading comprehension, including English language learners and students whose first language is English, also struggle with writing due to cognitive deficits that impede comprehension. A profile of sixth-grade struggling readers emerged from the research of students who lack the tools needed to process text. Struggling readers appeared to lack basic literacy skills of phonemic awareness and vocabulary, skill in narrative and connected discourse, and the ability to focus attention for prolonged periods of reading. Students with reading difficulty also appeared to be deficient in metacognitive skills of knowing what they know and knowing how new information relates into their existing knowledge base.

Cognitive Reading Strategies Applied to Struggling Readers

Suyitno (2017) defined cognitive strategies as mental processes applied to a range of situations, including learning a new skill, recall of past events, solving problems, and comprehension of ideas. Cognitive strategies can be used to address reading difficulties by improving students' reading comprehension, retention of material read, and application of concepts to new contexts (Peng & Fuchs, 2017). Cognitive reading strategies help readers, especially young readers, process reading materials more effectively so that they can comprehend, remember, and reference them (de Boer et al., 2018). Resnick et al. (2018b), for instance, highlighted the value of the activation of prior knowledge, classroom discussion and dialogic learning as means of improving learning engagement and knowledge retention. According to Resnick et al. (2018a), discussions about topics addressed in texts increase the likelihood that information will transfer from short to long-term memory and improve students' ability to apply recalled information in diverse situations and use prior knowledge for logic and reasoning. Peng and Fuchs (2017) stated that cognitive strategies can be used to address reading difficulties by improving students reading comprehension, retention of material read, and application concepts two new contexts. Cognitive reading strategies help readers especially young readers, process reading materials more effectively so that they can comprehend, remember, and reference them (de Boer et al., 2018).

Instructing students how to apply cognitive reading strategies to guide their own knowledge attainment has advanced as a progressive teaching application in primary education (De Smul et al., 2019). Babayigit (2019) stated when students have a

metacognitive plan that assists them in the process of reading before, during, and after reading, students can evolve this plan and apply metacognitive reading strategies in their academic careers and throughout their lives. Mariage et al. (2019) state that cognitive strategies can help struggling readers connect with the text. Cognitive reading strategies are beneficial for typically developing readers (Hattan & Dinsmore, 2019) but are particularly effective and necessary for struggling readers (Elleman & Compton, 2017). Elleman and Compton stated that direct cognitive strategy instruction, particularly in reading comprehension, might be required for students who have challenges with comprehending what they read. Hattan and Dinsmore (2019) emphasized that children who do not purposefully use cognitive strategies, such as prior knowledge activation, may perform well while in elementary school, but as they grow and encounter more complex texts, these children risk becoming lower level or reluctant readers. The literature suggests that explicitly teaching cognitive reading strategies may be the key to supporting struggling readers.

One such cognitive reading strategy involves inference making during reading (Barth & Elleman, 2017). Barth and Elleman found statistically significant increases in reading comprehension occurred when teachers prompted students to think about what students may already know about the topic they were reading about, increased the possibility of students being able to make a personal connection to the text or substitute unfamiliar textual information with applicable information that students could remember on their own. Solis et al. (2018) concluded that interventions include prompting students to consider their background knowledge and make inferences based on new information

from their reading. In addition, Solis et al. advocated teaching students to identify key words in a text that may help them further infer meaning. Rojas Rojas et al. (2019) concluded that effective teachers provide students with opportunities to practice inferential comprehension during reading activities.

Hein (2018) and Bratsch-Hines et al. (2017) demonstrated the effectiveness of cognitive strategies in helping elementary student readers. Bratsch-Hines et al.(2017) examined the effectiveness of three individualized reading strategies provided by elementary educators to struggling readers, in three rural school districts in the Southeastern United States, including meaning-focused strategies, level of challenge, and code-focused strategies. These outcomes were then compared to children's oral language, vocabulary, and decoding skills, in addition to teachers' levels of education, reading knowledge, and experience. Bratsch-Hines et al. found students reading skill was associated with teachers' use of code-focused (word identification) and meaning-focused (comprehension) strategies, as well as an appropriate level of challenge. Hein (2018), in research conducted for a doctoral dissertation, focused on the range of reading strategies that experienced educators in an elementary school in the southwestern United States perceived to be the most effective for assisting struggling readers. Hein found that the two strategies educators perceived to be effective for improving students' reading progress were 1) facilitating specific reading instructional practice that provided struggling readers with direct personalized attention, and 2) teacher guided small-group instruction to give students opportunities to practice and improve their reading abilities.

Cognitive reading strategies may be an effective teaching tool for students whose reading difficulties result from learning English as a second language (Abu-Snoubar, 2017; Al-Mekhlafi, 2018). According to Al-Mekhlafi many students who are English-language learners experience difficulty in reading academic texts because they use inadequate reading strategies. Abu-Snoubar found increased demand for professional development that addresses understanding cognitive reading strategies particularly with students whose first language is not English. Abu-Snoubar further pointed out that the majority of cognitive reading strategies can generalize into enduring skills that can be helpful throughout a learner's lifetime.

The complexity of reading and the necessity of cognitive reading strategies center on the nature of reading as a cognitive process, which can be dependent on the culture in which students learn to read. Zerubavel (2019) noted the importance of recognizing how the sociology of thought influences cognition, including cognitive reading skills and processes. When students read materials, multiple processes simultaneously wherein they are interpreting, contextualizing, and connecting information to what they have previously read (Zerubavel, 2019). Thus, a diverse range of cognitive strategies is necessary to address the different abilities required for reading comprehension. Kamhi and Catts (2017) emphasized that reading comprehension is not a single cognitive process or ability. Moreover, Zerubavel (2019) highlighted the influence of cognitive sociology and complications associated with studying cognitive deficits, including cognition related to beliefs or knowledge, behavior patterns relative to the surrounding culture, and patterns considered as rules or norms. Thus, considering the sociological context in which

students learn to read or continue to read in school may provide a more informed basis for determining which cognitive reading strategies could help them the most.

To summarize this section, cognitive reading strategies, such as drawing inferences, are approaches educators should explicitly teach to students to address reading difficulties, improve reading comprehension, and enhance retention. Cognitive reading strategies may be particularly effective among students whose reading ability developed in the context of a language other than English. The complexity of reading and the necessity of cognitive reading strategies center on the multi-faceted nature of reading as a cognitive process because reading comprehension is a result of multiple cognitive processes and abilities and is socially-situated.

Factors that Influence Reading Progress

A multitude of factors influences reading progress at various stages of reading skill development. Some factors are unchangeable, while others can be used as catalysts to help students who struggle to read at their grade level. Analysis of literature reveals similar factors that impact reading progress in the United States, are universal including parental involvement, socioeconomic status, class size, and teaching practices (Kapur, 2018). The following subsections describe some of the most commonly referenced factors that influence reading progress. Student-related factors are discussed first, followed by the influence of specific learning disabilities and cognitive deficits.

Student-Related Factors

Scholars generally conclude that some factors that influence students reading progress are interconnected such as socioeconomic disparities (Merz et al., 2020), or race

(Paschall et al., 2018). Merz et al. (2019) and Merz et al. (2020) emphasized the complexity of the relationship between students' socioeconomic status, language development, and cognitive function. Merz et al. (2019) explored a neurocognitive approach to understand socioeconomic disparities in skills that govern executive function and language. Merz et al. (2020) found that socioeconomic disparities in reading comprehension may be partially explained by language experience and exposure. Merz et al. (2020) demonstrated how neurocognitive function is significantly influenced by how often children are exposed to reading and language experiences, before they are exposed to formal reading skill development, and that reading exposure and experiences vary based on socioeconomic status. Merz et al. (2020) concluded that socioeconomic disparities in reading comprehension are indirectly explained by language experience and exposure. Thus, socioeconomic disparities in reading skills and progress appear to be linked to both cognitive functions and children's experiences reading and observing others read. These findings further evidence Resnick's (1985) cognitive understanding of learning and instruction.

Race and ethnicity associated with disparities in reading skills and progress though effect sizes in existing studies vary. Paschall et al. (2018) explained race and ethnicity-related disparities in reading progress are often intertwined with the influence of socioeconomic status and stem from past decades of more prominent inequality. Furthermore, Kuhfeld et al. (2018) emphasized the significance of examining race and poverty in context when evaluating trends in academic achievement. Paschall et al. and Kuhfeld et al. both utilized time-varying effect modeling. Paschall et al determined the

intersection and interaction of disparities in reading and math achievement based on race, ethnicity, and socioeconomic status, using a large sample of student achievement data for students between 5 and 14 years old that was collected over 20 years. Paschall et. al found significant disparities based on race, ethnicity, and socioeconomic status were determined when the factors were considered individually. Disparities in achievement among poor White students in comparison to poor Hispanic students and poor Black students grew over time. By contrast, the achievement disparity between middle and upper-class White and Hispanic students decreased over time. Paschall et al. concluded that a nuanced understanding of disparities in academic achievement requires the consideration of multiple factors simultaneously. Kuhfeld et al. (2018) determined the intersection and interaction of disparities in reading and math achievement between race, ethnicity, and poverty with a large sample of student achievement data from students 5 to 15 years old that collected over 25 years, and grouped based on Black, White, Hispanic, and poverty status from U.S. Census data. Kuhfeld et al., like Paschall et al. found disparities in that poor White students invariably achieved higher standardized reading and mathematics scores than minority students. However, unlike Paschall et al., Kuhfeld et al. found that differences increased over time, translating to vast differences in knowledge in middle grades.

Gender is another student-related factor that is associated with reading progress and achievement. Reilly et al. (2019) noted that while female students and children frequently outperform male students and children in language-related skills, effect sizes found in existing studies vary considerably based on methodological details such as

sample size. Other research into gender disparities conclude that teacher views, expectations, and stereotypes may contribute to higher assessed performance for female students than for males. Muntoni and Retelsdorf found teachers held higher expectations for female students than male students regarding reading abilities and students' outcomes. Thus, gender disparities in reading skills and progress appear to be linked to teachers' gender-specific expectations and teachers' gender stereotypes rather than psychological differences between male and female students.

Social factors including socioeconomic status and familial involvement may be particularly influential in terms of reading progress during summer months when students are away from the educational environment for an extended period (Coley et al., 2020). The school year is a learning cycle that includes breaks and time away from the learning environment. While short breaks are only a slight disruption to learning processes, summer-long breaks can be periods of significant growth or loss of recently-learned knowledge depending on students' summer experiences and activities (Coley et al., 2020). However, not all children from low socioeconomic status demonstrate loss in reading achievement upon return to school from summer breaks (Campbell et al., 2019).

Coley et al. (2020) used multilevel piecewise latent growth models to examine and model the data, which revealed achievement gaps based on socioeconomic status among children entering kindergarten. Data from 4,000 children, sourced from the Early Childhood Longitudinal Study Kindergarten Cohort of 2010–2011, were analyzed to examine achievement gaps in reading, science, and math skills month by month. Coley et al. found while reading achievement gaps were stable for reading skills, skill disparities

in science and math increased over summer break. Summer achievement gaps were partially explained by summer experiences where students were engaged in deliberate reading related and structured activities. However, Campbell et al. (2019) found the students in the lower two quartiles of reading achievement throughout the school year demonstrated significant reading gains over the summer. Moreover, in contrast to Coley et al. Campbell et al. found students from Title 1 schools evidenced greater reading achievement gains than students from non-Title 1 schools. Male students underachieved on all assessments during the school year in comparison to female students, yet males from Title 1 schools demonstrated the greatest gains in reading achievement during the summer months, from May to August (Campbell et al., 2019). Campbell et al. suggested that students in the lower quartile may engage in reading activities over the summer because of mandated Title 1-funded summer school.

Students whose first language is not English are often at a disadvantage in elementary reading and language subjects. As Ali and Razali (2019) noted, the process of reading is a primary means for ESL students to actively participate and interact with authors in a form of instructive English communication. Yet Xin and Yunus (2020) stated that, prior to being able to understand what one reads, it is essential for readers to have foundational skills which allows them to be read with fluency. Once ESL students have a firm grasp of reading, other methods of using and comprehending the English language become easier. However, the process of learning to read when one is not fluent in the language being used is complicated. Cognitive and metacognitive reading strategies tailored to ESL and English as a foreign language (EFL) students' need can be effective

for improving their reading comprehension (Ali & Razali, 2019). Acquiring reading abilities outside of one's primary language is difficult and it more challenging for struggling readers.

Specific Learning Disabilities and Cognitive Deficits

Specific learning disabilities (SLDs) and cognitive deficits can complicate students' reading progress and other learning processes, though the extent to which SLDs and cognitive deficits impact academic progress can vary considerably. Specific learning disabilities that are recognized by the Learning Disabilities Association of America (LDA) are dyscalculia, dyslexia, dysgraphia, non-verbal learning disabilities, developmental language disorder, and specific reading comprehension deficit (Jones & Martin, 2013). Some of these conditions impact general learning processes, while others only impact learning or information processing in certain academic subjects. It is important to note that while the number of identified SLDs is relatively small, the LDA and many other leading learning and/or disability-related organizations also recognize conditions including ADHD, dyspraxia, executive function disorder, and autism as being associated with cognitive deficits that can significantly impact reading and other learning processes (Jones & Martin, 2013).

Dyslexia is perhaps the most commonly-referenced SLD, as it primarily impacts language decoding and processing. Dyslexia also significantly impacts students' auditory temporal processing, working memory, and retention of information learned inside and outside of educational settings (Fostick & Revah, 2018). Unlike many other SLDs and cognitive conditions, theories pertaining to the causes and manifestation of dyslexia vary

considerably, though most evidence suggests that it is a disorder that is characterized by multiple cognitive deficits. Other SLDs that are referenced often in literature on reading skill development and progress are developmental language disorder and specific reading comprehension deficit. Developmental language disorder affects children's speech, communication, and language development, and is the diagnostic term used for developmental language difficulties that are not associated with autism or another disorder that impacts language development (Hendricks et al., 2019). As Hendricks et al. (2019) noted, less is known about developmental language disorder (DLD) than many SLDs and developmental disorders. Thus, reading difficulties caused by DLD can easily be misattributed by parents, educators, and even medical professionals to a different disorder.

While developmental language disorder impacts multiple aspects of language development, specific reading comprehension deficit (S-RCD) is specific to reading comprehension ability. Students with S-RCD struggle to comprehend written words and passages, despite effective phonemic decoding and intellectual abilities (Landi & Ryherd, 2017). Similar to developmental language disorder, S-RCD is a diagnostic term used to reference a reading comprehension deficit that is not associated with another disorder or disability that impacts language skills. Landi and Ryherd's (2017) review of existing literature revealed notable research gaps pertaining to the nature of S-RCD and how it impacts reading ability. The review of literature written by Landi and Ryherd demonstrated research gaps in the literature on S-RCD and other SLDs that could translate to a lack of understanding of these conditions among educators. Most students

with SLDs are enrolled in regular education classrooms, and so may be among those who score below-grade level in sixth grade, and among those to whom teachers might share cognitive reading strategies.

Reading Struggle Effect on Student Social-Emotional Experience

If a fifth- or sixth-grade student has been struggling with reading since the third-grade they will feel overwhelmed and defeated by the rigor and complexity of curriculum expectations related to both literary and informational text (Morris et al., 2017). Sixth-grade students who read at the B50PR level experience effects that extend beyond the in-the-moment task of reading a text. Lack of reading ability affects students' social-emotional health in the quality of their interpersonal relationships, their level of achievement motivation, and their feeling of self-esteem.

Interpersonal Relationships

Teachers and students engage with each other and have a significant role in each other's lives. Sabol et al. (2018) found that students' positive reciprocal actions with teachers increased literacy skills; positive reciprocal relationships with peers resulted in improved language skills. However, Varghese et al. (2019) explained that struggling readers may be unable to meet their teacher's academic expectations, which may cause unpleasant interactions with teachers and lead to negative reciprocal interactions, affecting children's future reading, writing, and social outcomes. Zhu et al. (2018) found that adverse teacher treatment and negative teacher judgment were associated with negative student academic and social-emotional outcomes, so that teacher perspectives towards low-ranking students are reflected in student academic outcomes. Girli and

Öztürk (2017) concluded that in comparison to typically developing students, students diagnosed with specific learning disabilities were significantly deficient in their use of metacognitive reading strategies, their feelings of self-efficacy for reading, and strength of their reading self-concept.

Caleon and Ma (2019) examined cross-lagged relations between teacher-student relatedness and reading achievement of academically at risk-secondary students. Caleon and Ma concluded that teacher-student relatedness might affect student academic achievement and influence student-teacher relationships for years to come. In addition to negative effects of low reading on teacher-student relationships, Turunen et al. (2017) found struggling readers are likely to have negative peer relationships as well, either as a victim or negative actions by other students or as a perpetrator of such actions on others. Turunen et al. explained that students who struggle in the area of reading are presented with opportunities throughout the day based on classroom activities, such as reading aloud or participating in group projects, where their poor fluency or decoding deficits are displayed to the whole class. This public display of a student's failure can lead to an increase in bullying involvement compared to their non-struggling reading peers (Turunen et al., 2017). In addition, negative peer relationships can lead to negative emotions overall, which reduces students' desire to read (Bastug et al., 2017).

Achievement Motivation and Self-Esteem

Students who struggle with comprehending what they have read may display behaviors associated with a lack of interest, school burnout, and poor participation in academic content areas in comparison to students that have distinct deficits in the area of

reading fluency (Torppa et al., 2019). Struggling readers who have significant difficulty in reading comprehension and poor reading fluency had decreased motivation in not only reading-related tasks but devalued tasks related to mathematics and science (Torppa et al., 2019). Although a struggling student may enjoy a particular topic in an assigned text, students with poor reading and writing skills can quickly become withdrawn or emotionally dissociated when they have to participate in reading assignments (Trotter, 2020). Struggling readers in the sixth grade can see a decline in their learning and academic performance due to the lack of ability to demonstrate mastery of grade level curriculum which can negatively affect struggling readers' sense of self and emotional well-being.

Struggling readers are at a higher risk for developing negative interpersonal and external issues due to reading difficulties (Boyes et al. ,2017). Boyes et al. reviewed reading ability of 117 adolescents gathered through reading assessments, mental health and self-esteem self-reports, and questionaries. They found significant correlations between self-esteem and reading ability, and poor reading ability was closely tied to feelings such as anxiety and depression (Boyes et al., 2017). Lindeblad et al. (2019) explained and cited research that supports the concept that reading ability is linked to psychological health such as feelings of happiness, accomplishment, feelings of contentment, and confidence. Students' affect and attitude towards reading are additional potential barriers that need to be addressed so students are motivated to employ effective reading strategies and address their reading difficulties (Cockroft & Atkinson, 2017).

Efforts to improve students' reading ability and close achievement gaps must address a multiplicity of factors that can interfere with students' ability and motivation to read.

Systemic Support for Struggling Readers

During the early years of the 21st century, under the George W. Bush administration, Response to Intervention (RTI) was created as a more proactive procedure for identifying disabilities than the traditional process of grouping students by IQ scores, a procedure that offered the potential for positive general education changes (Fuchs & Fuchs, 2017). RTI was enacted into legislation as part of the 2004 amendments to the Individuals with Disabilities Education Act (IDEA) (Fuchs & Fuchs, 2017). The Every Students Succeeds Act of 2015 (ESSA) reauthorized the Elementary and Secondary Education Act with an emphasis on equity and inclusiveness (U. S. Department of Education, 2018). Some new ESSA provisions included an intentional focus on equity for homeless, foster, and low-income students, and for students with disabilities, focusing on evidence-based interventions (Cook-Harvey et al., 2016). As part of RTI, students are assessed at the beginning of an academic year to ascertain their skills and knowledge (Braun et al., 2020). Driven by student levels of achievement on assessments and previous academic and behavior data, students are assigned to one of three tiers of support (Braun et al., 2020).

The multitiered support systems typically consist of Tier1, Tier 2, Tier 3; these are collectively elements of RTI. In Tier 1 all students are screened to assess their risk of being unsuccessful if they were to receive only classroom instruction (Fuchs & Fuchs, 2017). Students who are expected to make positive progress are designated to receive

general education as part of Tier 1 (Fuchs & Fuchs, 2017). In Tier 2, intense instruction is provided to students identified in the Tier 1 assessment as potentially needing support. Tier 2 instruction offers increased intensity, consistent, organized instructional support, reduced student to teacher ratio, compared to Tier 1 instruction, and includes skill growth measurements assessed over short periods (Al Otaiba et al., 2019). Tier 3 is for students who require more intensive and higher intensity levels because they did not have a positive response to the support offered within Tier 2 (Al Otaiba et al., 2019). The intended result of multitiered systems is to intervene and support students based on their needs (Wanzek et al., 2018). As a standard, a proper RTI framework works to systemically distribute resources through early detection and make certain that a high degree of attention is paid to the appropriate intervention to alleviate struggling students' deficit areas (Hendricks & Fuchs, 2020).

Special education services provided by special education professionals or qualified persons are allotted to students diagnosed with a disability who cannot access the curriculum without intensive support. RTI and MTSS are support systems employed when students receive interventions within a small group setting from a reading specialist with less intensity than special education to increase necessary skills to succeed in academic content areas (Fuchs et al., 2018). Students in the B50PR continue to receive general education curriculum instruction. B50PR students are classified as Tier 2 students who receive reading intervention and progress monitoring to close achievement skills gaps and alleviate some of the social-emotional stressors accompanied by struggling readers.

Supporting Struggling Readers in the Classroom

Educators are tasked with developing students' reading abilities and teaching them key strategies to persevere when they encounter reading obstacles (Bratsch-Hines et al., 2017). Educators must foster not only reading skills and abilities, but also interest and love for reading so that students are motivated to apply their strategies and be resilient when they struggle. Further, support for readers of different ability levels and backgrounds requires educators to balance reading curriculum and assessments that involve some degree of challenge or difficulty to keep students engaged with the reading material, but not to the extent that they feel incapable and give up (Bratsch-Hines et al., 2017). Due to diverse classroom populations, including English language learners and students on various academic skill levels, educators are charged with teaching academic content-specific language to a range of students that have different levels of understanding (Vaughn et al., 2016). Jones et al. (2016) recommended that educators aim to establish the reading profile of students and provide evidence-based support that matches how readers approach and understand texts. Englert and Mariage (2020) contended that sixth-grade teachers should be equipped to modify their instruction to provide additional or less support at all times, depending on students' understanding of the text.

Knowledgeable, adaptable, and willing to support struggling readers are some of the qualities of teachers that help to mitigate some of the students' challenges. Vollinger et al. (2018) stated that teachers should understand reading strategies and use these to improve students' understanding of text. Iwai (2016) noted that teachers must provide

students with necessary tools to comprehend text including various reading strategies and that teacher preparation courses should emphasize the importance. Iwai concluded that teachers must be explicitly taught metacognitive reading strategies or they will not be able to impart these vital skills on to those they will be charged with teaching. Teachers should be intentional in teaching students that strategies are resources to assist in accessing information while reading instead of merely teaching students to gain control of their understanding of the strategy itself (Mariage et al., 2019). Bell (2017) stated that teachers should use current information from neuroscience on how the brain processes information to incorporate effective brain-based strategies into their reading instruction for struggling readers. When teachers provide students with explicit examples and actions to comprehend text, they demonstrate to students how to separate details and deduce information for understanding (Bell, 2017).

Educators can influence students' reading habits and abilities not only through their instructional strategies but also through how they implement those strategies. Babayigit (2019) found that regardless of whether students are taught to use cognitive reading strategies, their likelihood of applying strategies depends on their teachers' reading strategies and practices. Babayigit suggested that it is not enough to merely discuss helpful reading strategies with students; rather, students have to actively see educators using cognitive reading strategies effectively in their everyday actions and teaching processes.

Stevens et al. (2020) found that struggling readers in elementary to middle grades improved in vocabulary and comprehension in academic subjects when teachers

consistently aligned their work with instructional practices taught in an intervention setting. Bhattacharya (2020) reported struggling readers can improve their accuracy and fluency in reading multisyllabic grade level words when they are given consistent and repeated practice. Herbert et al. (2020) found instruction in identifying a variety of common text structures could improve fourth- and fifth-grade students' word decoding skills and comprehension but did not help students identify the central meaning of text during post-assessments. Mariage et al. (2019) suggested explicit instruction in how to conduct and behave during close reading discussions, take notes during reading, and annotate reading passages, and identify the central meaning of a passage increased students' total number of correct comprehension questions. Additionally, Mariage et al. noted that post-intervention discussion included more complete sentences, more relevant questions, and more relevant comments, and more connections to students' own personal experiences, than had occurred before the intervention.

Barriers from many sources may prevent students from getting effective reading support or may deter educators from intervening or successfully improving student outcomes. Barriers may be attributable to readers' personal characteristics or circumstances (King-Sears et al., 2019), as I described previously. Jones et al. (2016) noted that despite significant efforts designed to help struggling readers, such as RTI, many sixth-grade students still fail to comprehend grade-level texts. In some cases, educators and other school personnel do not have the skills, knowledge, or training to determine the best approach to support struggling readers. King-Sears et al. explained that barriers educators experience when planning or actively implementing reading

interventions may lead them to choose an easier approach. King-Sears et al. surveyed 177 secondary school teachers with experience working with students with learning disabilities and found revealed significant challenges associated with co-planning and co-teaching when teachers attempted individualized reading instruction.

Despite efforts by educators to provide equal access to education, students' personal contexts ultimately place some students at a disadvantage in comparison to their peers. Howe (2021) suggested lack of positive experience with literature creates a barrier to reading comprehension that separate advantaged and disadvantaged students. To fill this gap in students' literature experience and increase motivation for reading, Howe developed a lesson plan with a focus on literature, culture, and language to improve reading comprehension and listening skills among young learners. Howe emphasized the effectiveness of reading aloud as an approach to address reading progress barriers among children. Howe noted that reading aloud also can improve students' ability to activate prior knowledge through follow-up discussions, which can scaffold for students this cognitive reading strategy.

Researchers including Jones et al. (2016) and Crone et al. (2019) identified the need for additional research and information on how middle school teachers incorporate cognitive reading strategies to support students with reading challenges. Many educators have self-reported implementing cognitive reading strategies and encouraging students to use them, however, the extent to which they are implemented and how educators do so remain unclear. Sixth-grade students' use of metacognitive strategies is often contingent upon the skill and flexibility of the classroom teacher (Babayigit, 2019). Student success

in applying cognitive reading strategies demands teachers' readiness and intentional effort to provide students with scaffolded instruction and strategic prompts to aid in comprehension (Englert & Mariage, 2020).

Summary

Chapter 2 focused on relevant literature that centers on the problem of struggling readers similar to sixth-grade students who score low on reading assessments designed to measure reading progress. Additionally, the application of cognitive reading strategies as a tool by which to improve students' assessed reading ability was explored in Chapter 2. The purpose in this study is to explore sixth-grade teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment was discussed. Resnick's (1985) cognitive theory of instruction, which describes three primary reading tasks that can be facilitated by teachers to enhance students' reading strategies: (a) prior knowledge recall, (b) application of metacognitive strategies, and (c) assimilation of new text-based knowledge into the student's existing knowledge base was explained. Educators of many grade levels can teach students cognitive reading strategies to address reading difficulties, improve reading comprehension, and enhance retention. However, literature presented in this chapter suggested some educators do not have the requisite skills, knowledge, or training to choose the most appropriate cognitive reading strategies for struggling readers or may be hindered by complexities of planning and time management. In addition, evidence from the literature indicated students' affect and attitude towards reading can prevent progress if students lack the motivation or cognitive orientation to effectively apply the

reading strategies they are taught. Other student-related factors, including their personal contexts, characteristics, exposure to reading aloud, and socioeconomic status can place some students at an academic disadvantage in comparison to their peers, regardless of their motivation or efforts to succeed academically.

In Chapter 3, the qualitative research methodology utilized to guide this study of sixth-grade teachers' perspectives regarding cognitive reading strategies used in support of their lowest-reading students will be explained. Chapter 3 will also detail the methods that will be used to identify prospective participants in this interview-based study, the instruments utilized to guide the interview process, and how data will be analyzed. Described in Chapter 3 will be possible study limitations, elements of trustworthiness, and ethical considerations.

Chapter 3: Research Method

The purpose of this qualitative study using interviews was to explore sixth-grade teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. The problem that I addressed through this study was that many sixth-grade students in the United States lack proficiency in reading. In particular, 55% of sixth-grade students at an urban middle school in the Southeastern United States scored B50PR on the Fall 2019–Spring 2020 MAP Achievement Status and Growth Summary report. The gap in practice is inherent in the failure of over half of sixth grade students in the target school to achieve 50PR on the MAP Growth reading assessment. In this section, I present the research design, rationale, and my role as the researcher. In addition, I offer details regarding the participant selection, data collection instruments, and data analysis plan. I then describe the strategies to establish the study results' trustworthiness and ethical procedures related to participants' data treatment.

Research Design and Rationale

The research questions that guide this study were as follows:

RQ1: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding activation of prior knowledge in preparing students for reading text-based material?

RQ2: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding direct instruction of reading strategies students can apply in reading text-based material?

RQ3: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding support for assimilation into the student's existing knowledge base to new knowledge offered by text-based material?

The research design for this study was a basic qualitative study design with interviews. This design is appropriate for interpreting, understanding, and explaining the phenomenon (Ravitch & Carl, 2016). I chose a basic qualitative design because, according to Merriam (2009), a basic qualitative approach is used when one seeks to gather an understanding of how people interpret and make meaning of experiences in their world. Qualitative researchers examine and attempt to understand phenomena concerning how people construct meaning within their setting (Denzin & Lincoln, 2005). According to Merriam and Tisdell (2016), interviews are used to collect data when it is necessary for researchers to gather perceptions and perspectives from informants, and study informants' attitudes. Qualitative researchers conduct studies in a variety of designs; however, interviews are often used as a basic primary method (Roulston & Choi, 2018). The central phenomenon I explored in this study is sixth-grade teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment.

The basic qualitative study approach using interviews was the most rational choice because I sought to understand a phenomenon, people's perspectives with interviews, or various elements together (see Merriam & Grenier, 2019). Data collection in a basic qualitative design can occur through interviews, observations, or document

analysis (Merriam, 2009, p.6). According to Payne and Payne (2004), a quantitative design measures the frequency of events and explores associations or correlations between variables (Payne & Payne, 2004). However, psychological phenomena cannot be measured statistically or numerically, requiring a qualitative design (Percy et al., 2015). I conducted semistructured interviews, as described by Roulston and Choi (2018). Semistructured interviewing includes asking open-ended questions the interviewer asks of participants, and is a process aimed at encouraging conversation about the target phenomenon and thinking that is free of restraints (Roulston & Choi, 2018).

Role of the Researcher

I am currently a member of the Multitiered Support System/Response to Intervention team and one of four reading specialists at the district where the study took place. I am, therefore, an insider as described by Dwyer and Buckle (2009). My insider status enabled me to apply insight into the work of teachers in the district and also supported my credibility with them as someone interested in what participants have to say. I had a strictly professional relationship with the participants of the study and, especially in light of my insider status, I maintained professionalism throughout the entire study. I did not have an evaluative role or supervisory role nor did I teach in a collaborative or co-taught setting with the study participants.

I am a Walden University alumna; my affiliation with Walden has shaped my professional views as a social change agent and contributed to my desire to advocate for diverse marginalized populations similar to target B50PR students recognized in this study. I remained cognizant of my personal biases and experiences to maintain neutrality

with participants analysis of data (see Creswell, 2014). To manage biases and my personal preferences throughout the study, I kept a reflective journal, as a way to manage my personal opinions and biases, as suggested by Merriam and Tisdell (2016).

Methodology

Participant Selection

The population of interest in this study included teachers who work as general education teachers that teach language arts, social studies, science, or mathematics to sixth-grade students and who may have taught students who scored at the B50PR reading level. I used purposive sampling as a means of recruiting participants from one middle school in the target state who have 2 years' experience with the phenomenon of teaching B50PR students and could inform this study's research questions (see Merriam & Tisdell, 2016). According to Merriam and Tisdell (2016), purposive sampling is ideal for obtaining participants through recruiting individuals who are eligible and knowledgeable. Purposive sampling is employed by researchers to select participants that are directly eligible for the study based on inclusion criteria (Merriam & Tisdell, 2016).

I selected the target middle school because of its large sixth grade population of students and teachers. The target school enrolls over 600 sixth-grade students and employs approximately 40 general education teachers who work with sixth-grade students. Criteria for selecting participants included that they were sixth-grade general teachers from the target school with at least 2 years' teaching experience with students who may have scored at the B50PR reading level. Excluded as participants in this study were those who taught only special student populations, such as gifted and honors

students and students with diagnosed learning challenges, and teachers of non-academic subjects, such as physical education, art, and chorus. I also excluded teachers in other schools than the target school and other grades than sixth grade. I explained the inclusion criteria to prospective participants in the emailed invitation and in the consent form.

My intention was to interview 10 to 12 participants. This number of participants is supported by Creswell and Creswell (2018), who noted that a small sample of participants is typical in an interview-based study to allow researchers to deeply explore the phenomenon. Ravitch and Carl (2016) suggested that data saturation in a study is achieved when no new information is forthcoming in the final interviews. At the conclusion of the interviews of 10 participants in this study, no new data appeared to be emerging, suggesting saturation had been achieved.

Instrumentation

The primary instrument I used in this study was a set of open-ended questions that formed the basis for the interviews as a catalyst to open discussion with participants, eliciting their thoughts, opinions, and perspectives, and enabling them to create their narrative to answer the research questions (see Beitin, 2012). The interview questions are presented in Appendix A, and include five main questions, three of which are accompanied by two to three follow-up questions, for a total of 13 questions. Interview Question 1 and its two follow-up questions asked the participant to imagine introducing new material to be read, and then to describe how they would activate students' prior knowledge to help students prepare for the reading. These interview questions helped me answer RQ1, about the cognitive strategy of activation of prior knowledge. RQ2, which

inquired about direct instruction of reading strategies, is associated with Interview Question 2 and its three follow-up questions about techniques teachers might suggest students use in approaching a text. Interview Question 3 and its three follow-up questions addressed RQ3, about supporting students in understanding what they read and assimilating new information in a way that demonstrates engagement with the material. Interview Question 4 asked participants to summarize their perspectives of cognitive reading strategies in support of B50PR students. Finally, Interview Question 5 asked the participant to tell whatever more they care to add about how they support their lowest readers in learning from texts.

To support the validity of my interview questions, I submitted them to two doctoral-level education practitioners for their review. These experts told me that I should make sure to begin with general questions, to help participants orient their thinking at the start of the conversation. The first interview question, which begins by asking the participant to imagine the common instructional event of introducing to low readers new material to read, accomplished this orientation task.

Procedures for Recruitment, Participation, and Data Collection

Recruitment

I began recruitment by locating the school district email addresses of all general education teachers in the district who teach sixth-grade students. These email addresses are available to the general public on the school district website and are approved by Walden University's Institutional Review Board (IRB) as a recruitment source without other permissions needed. I anticipated that 40 to 50 sixth-grade teachers would form this

prospective participant pool. I then emailed every teacher an invitation to participate in my study. The email invitation was accompanied by the consent form as an attachment. Both the invitation and the consent form describe criteria for participation in the study. The email invitation was sent from a non-district email address via my personal computer, where data were secured. As teachers responded to the invitation email with the message, "I consent," I responded via email with suggested days and times for the interview. I interviewed the first 10 teachers who responded and who met the criteria.

Participation and Data Collection

At the appointed day and time for each interview, the participant and I met using the Zoom teleconferencing platform, or by telephone if the participant preferred. I began by confirming the participant's consent to be interviewed and consent for the interview and confirming that they were in a private space where they can speak freely and be free from interruptions. I solicited any questions or concerns that the participant might have. I launched the recording function of Zoom or the recording feature on my cell phone, and Otter.ai, a real-time transcription platform for meeting notes, and then began conducting the interview, following the interview questions in Appendix A. I created a conversational exchange by probing for clarity when I was uncertain what the participant meant to say, and by asking for more detail if more information seemed likely. I was aided through these processes in constructing understanding (see Guba & Lincoln, 1994). I used reflective journaling to record my thoughts and observations during each interview. At the conclusion of each interview, I thanked the participant and informed

them to expect a follow-up email with the transcript of our conversation attached, so they could review the transcript and make any changes they wished.

I created a list, separate from the data to follow, in which I substituted participant names with assigned numbers. I then labeled each audio file and all subsequent data, with each participant's assigned number. I saved all data in a secured file. I then listened to the audio recordings and transcribed each interview verbatim, saving each transcript with the corresponding participant number. In this way, I created Word documents from which to begin data analysis. After I had transcribed the interviews, I emailed participants their respective interview transcript so they can verify that my transcribing of their interview was correct, and to give them an opportunity to amend or clarify what they told me. I used the amended transcripts the basis for my data analysis.

Data Analysis Plan

To prepare the data for analysis, I created a three-column table using Microsoft Word, placing all transcripts one after another in the middle column. I reserved the left column as the location of codes. When I identified a code, I placed the code beside the associated portion of the interview transcript. The right-hand column was used to record my notes from observations made during the interview. I placed any notes that I jotted during the interview, such as emotional responses that I perceived or interpreted (see Saldaña, 2016), in the right column, in the corresponding location of the transcript section.

Next, I began precoding data which involved rereading, and annotating in order to fully comprehend the data and identifying concepts and ideas related to the research

question, determining a preliminary naming of code words (see O'Neill, 2013). Reviewing the data at least twice is imperative during data analysis as it contributes to the researcher's understanding of the data an in recognizing occurring patterns (Cleary et al., 2014). I used Word's editing tools, such as text highlight colors, bold, and italic, to point out prominent or recurring words and phrases, as suggested by Saldaña (2016).

I use in vivo and open coding during this initial coding. I assigned or tag the code word with the respective color every place the code word topic appears in the chunk or section of the data under analysis. During this preliminary stage, patterns and themes became apparent (Yin, 2014). Following in vivo coding, I used participants' actual language to assemble data relating to participant's ideas, perceptions, and views (see Saldaña, 2016). I noted where I could not apply codes or where I needed to create a new code. I reread and recoded when necessary, using different color codes as appropriate. I repeated this process until all data were coded and the coding process had been conducted twice. I then transferred this final list of codes to a single column of an Excel spreadsheet. Codes were initially be organized by participant number, to enable the easy identification of the source of a verbatim quote.

Working from the Excel spreadsheet, I moved rows containing similar codes so they were grouped one row after the other. I sorted the codes into categories and grouped them based on resemblance of ideas, as described by Saldana (2016). In this way, I transformed the codes from a list organized by each participant's transcript to a synthesis of codes organized by similarity of idea. I then labeled these similar ideas in a new column of categories to the right of the column of codes on the Excel spreadsheet, with

all similar codes labeled with the same category. Codes that did not conform with recognizable categories were reanalyzed to determine whether inconsistencies could be resolved. When analyzing data, it is crucial to address variant cases are addressed (Ravitch & Carl, 2016). No discrepant cases were identified.

After all codes had been assigned a category, I prepared to analyze the data to identify themes. I created a new spreadsheet with only the categories in the left-hand column. I then moved the rows containing similar or related categories so like categories were listed on the spreadsheet one after the other. I labeled similar categories into a single theme, until all categories are grouped by theme. This data analysis was supported by specific examples of participants' ideas, derived from coded quotations linked to participants' number.

Trustworthiness

Credibility

Credibility ensures consistency between participants' views and the researcher's interpretation and expression (Ryan et al., 2007). By recording semistructured interviews, I was able to transcribe data accurately. I established trustworthiness by ensuring that the data collection methods could be traced back and verified to the primary source (see Mathison, 2005). Throughout this BQS I ensured that I followed quality assurance measures outlined in research protocols pertaining to locating participants, conducting interviews, analyzing, coding, and reporting data.

Transferability

According to Shenton (2004) a research study has transferability when findings can be applied to other situations. Houghton et al. (2013) stated detailed descriptors allow readers to make educated decisions regarding the transferability of study findings to another context. I provided detailed descriptions regarding data collection and analysis based on participant interviews. To enhance this study's transferability to other contexts, I minimized my personal biases and provided extensive reports of the process, procedures, and results (see Yin, 2014).

Dependability

Elo et al. (2014) explained a qualitative study's dependability as the extent to which another researcher could follow the study's process steps and arrive at the same findings. Ryan et al. (2007) stated that researchers are expected to provide readers with sufficient information required to assess the study's dependability and researcher. Merriam (2009) posited that member checking deepens the trustworthiness of qualitative research. I performed member checks with interviewees by asking them during and after that interview process if my understanding of their shared information was correct. I took procedural actions such evaluating data collected from various sources. I cross-checked the data from face-to-face interviews and transcripts to ensure logical coherence.

Confirmability

Confirmability refers to actions the researchers take to ensure the data's findings are accurate (Anney, 2014). Confirmability is associated with data collection processes that are objective (Ravitch & Carl, 2016). One significant purpose of confirmability is to

recognize and examine personal opinions that may prematurely influence the interpretation of data (Ravitch & Carl, 2016). Throughout the current study efforts were made to be reflective and remain cognizant of my role as a researcher in order to refrain from being subjective. The maintenance of reflective journal can be utilized as researchers' tool to reinterpret one's experiences, notions, and learning, which may assist in bridging ideas to concepts, and connect beliefs that may guide behavior throughout the study (Quinton & Smallbone, 2006). Reflective journaling occurred throughout the study. Member checking is a practical method of returning data or findings to participants to examine for truth and fidelity (Birt et al., 2016). The technique of member checking is significant for trustworthiness (Creswell, 2014). Participants were provided a copy of their interview transcript to review for accuracy. According to Merriam (2009) member checking deepens the trustworthiness of qualitative research.

Ethical Procedures

Prior to conducting the study, I requested approval through Walden University's Institutional Review Board (IRB). Upon IRB approval to conduct my study (11-12-21-0484461), I took full responsibility and the necessary actions to protect participants' interests and privacy. All prospective participants were provided with detailed description of the study and asked to give informed consent prior to any further contact with them. Informed consent refers to participants be fully aware of the details and purpose of the study (Creswell, 2014). The consent form stated that participants could withdraw at any time. To avoid risk to participants I took measures to ensure privacy and confidentiality, as suggested by Burkholder et al. (2016), including substituting participant names with

assigned numbers on all data files. I kept participants' identity and their school affiliation confidential (see Creswell, 2014).

I stored digital data, including Zoom files and Word and Excel documents, on a password-protected USB flash drive located in a locked file cabinet at my residence. Any paper files were kept in the same secure location. All study data will be destroyed 5 years after completion of the study. I will wipe my computer of any files that may be on my device, using a tool like Eraser. I will shred any paper documents after securing them for 5 years.

Summary

In this chapter, I described my method for exploring sixth-grade general education teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. I described my plan to collect data via interviews of 10 sixth-grade teachers at the target school, following a qualitative design method, conducted using Zoom teleconferencing or telephone. In this chapter, I described my professional role as the researcher, as well as the procedures for participant sampling and selection to ensure that the teacher interviewees had experience with the phenomenon of teaching sixth-grade students who score B50PR in reading. A description of procedures detailed how members' explicit voluntary informed consent will be obtained, and how interviews will be conducted and recorded. Data were analyzed using in vivo coding, then categorized to enable the creation of themes. I described the measures by which trustworthiness of the results was created, including using member checking of interview transcripts. I also described the deliberate considerations given to

mitigate conflicts of interest, and other ethical issues, and described how I protected the confidentiality of participants. In Chapter 4, I will present data analysis and results of the study.

Chapter 4: Results

The purpose of this basic qualitative study using interviews was to explore sixth-grade general education teacher perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. I used the following three research questions which were informed by Resnick's (1985) cognitive theory of instruction to guide this study:

RQ1: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding activation of prior knowledge in preparing students for reading text-based material?

RQ2: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding direct instruction of reading strategies students can apply in reading text-based material?

RQ3: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding support for assimilation into the student's existing knowledge base to new knowledge offered by text-based material?

In this chapter I present the results of the qualitative analysis of data gathered from the individual interviews. The first section in the chapter, I report the demographic information of the study participants. In the next section I present the participants' involvement in the data collection activities (i.e., interviews). A description of the data analysis conducted for the study follows. Then, the largest section of the chapter concerns

the results of the data analysis. I provide evidence of trustworthiness of the data following the results section. A summary concludes the chapter.

Setting

Upon IRB approval (11-12-21-0484461), I distributed informed consent forms to 10 participants, who were sixth-grade teachers with at least 2 years of teaching experience. Participants were general education teachers who taught language arts, social studies, science, or mathematics to sixth-grade students and who had taught students who scored at the B50PR reading level. One male and nine female teachers agreed to participate in one-on-one interviews. Years of teaching experienced ranged from 7 to 30 years. Table 1 displays the participant characteristics.

The participants of the study worked at one public school in the Southeastern United States. Due to the COVID-19 pandemic, many schools in the target state closed temporarily and conducted instruction remotely for several months in the 2020–2021 school year. Teaching and learning were disrupted because of these instructional changes, issues in connecting with and using internet-based delivery methods, and issues with personal and family health and well-being (see Lessard & Puhl, 2021). These disruptions may have affected teachers' perspectives regarding use of cognitive reading strategies in supporting B50PR readers.

Table 1

Participant Characteristics

Participant	Years of Experience	Subject
1	9	English Language Arts
2	30	Social Studies
3	30	English Language Arts
4	22	English Language Arts
5	8	English Language Arts
6	12	Social Studies
7	7	English Language Arts
8	8	English Language Arts
9	7	English Language Arts
10	23	Social Studies

Data Collection

I conducted semistructured interviews with all participants via their personal computers or cell phone. Interviews took place over a span of 4 weeks between November 21, 2021 and December 12, 2021. I conducted the interviews from my home office and asked teachers to participate from a private space where they were unlikely to be interrupted. Interviews were held after work hours or on the weekend. Prior to the start of each interview, I reiterated informed consent and reminded participants that they could pose questions or stop the interview at any time. I created a conversational exchange during the interviews by probing for clarity and asking for more detail if more

information seemed likely. Interview participants were assigned a pseudonym number to maintain confidentiality, and these numbers were used to identify the audio recordings and transcripts. The average length of the interviews was 21 minutes. None of the interviews were interrupted in any way, and all proceeded as described in Chapter 3.

The interviews were recorded using Otter.ai, which also automatically transcribed the recordings verbatim. The transcripts of the interviews were on average 10 pages in length. I checked transcripts for accuracy by actively listening to audio recordings and edited any misplaced or misspelled words. Transcripts were emailed to each participant, with a request that they review them and correct any errors or misstatements for the purpose of member checking. All participants confirmed the accuracy of their transcripts.

Data Analysis

Upon confirmation from participants of the accuracy of the transcriptions, I transferred the data to Microsoft Word and printed the documents from each interview. I read through the transcripts of each participant's interviews, and highlighted words and phrases that were relevant to my study's purpose and to specific RQs. Next, I removed any information that was transcribed but not relevant, such as comments on the weather. I highlighted ideas that presented thought-units and delineated words and phrases that did not require to remain within the context of surrounding text. I annotated the transcripts in order to fully comprehend the data and identify concepts and ideas related to the research questions. At this stage, I determined a preliminary naming of code words (see O'Neill, 2013).

I employed open coding during this initial coding. I tagged relevant sections of text with appropriate codes. During this preliminary stage, patterns and themes arose (see Yin, 2014). Following in vivo coding, I used participants' actual language to assemble data relating to participant's ideas, perceptions, and views (see Saldaña, 2016). I noted where codes could not be applied or where a new code should be created. I reread and recoded when necessary, using different highlight color codes as appropriate. This process was repeated until all data were coded, and the coding process was conducted twice. There were 148 codes that were applied during this open coding stage.

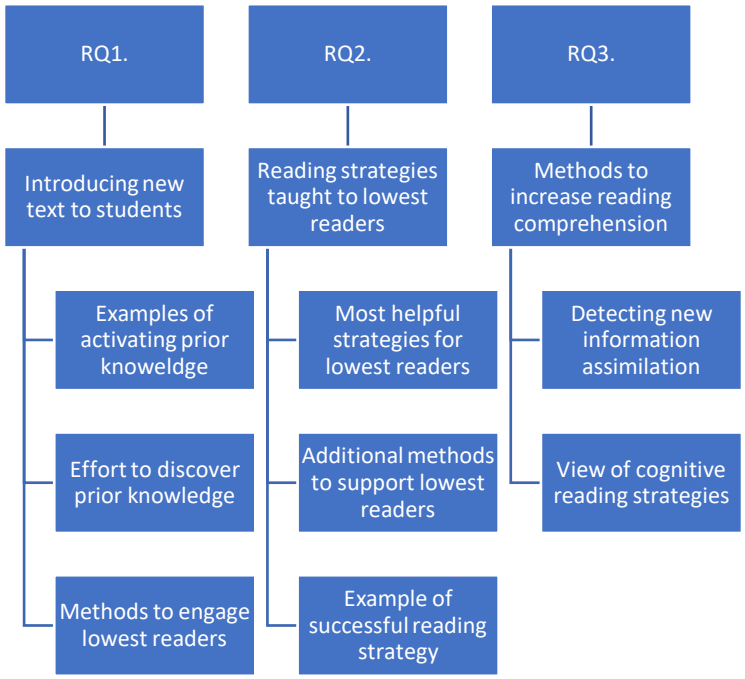
Next, working from an Excel spreadsheet, I sorted codes into categories and grouped them based on similarity of ideas, as described by Saldaña (2016). In this way, codes were transformed from a list organized by each participant's transcript to a group of codes organized by similarity of idea. I then labeled similar ideas, creating categories of data. Codes that did not conform with recognizable categories were reanalyzed to determine if inconsistencies should be noted. I derived eight categories: methods to engage lowest readers, effort to discover prior knowledge, examples of activating prior knowledge, most helpful strategies for lowest readers, additional methods to support lowest readers, example of successful reading strategy, detecting new information assimilation, and view of cognitive reading strategies.

Once all codes had been assigned a category, I prepared to analyze the data to identify themes. Categories that described similar ideas were condensed into a single theme, until all categories were grouped by theme. I generated three themes: introducing new text to students, reading strategies taught to lowest readers, and methods to increase

reading comprehension. The theme of introducing new text to students seemed associated with RQ1. The theme of reading strategies taught to lowest readers was associated with RQ2. Lastly, the theme of methods to increase reading comprehension was associated with RQ3. The relationship among categories, themes, and RQs is illustrated in Figure 2. The data analysis was supported by specific examples of participants' ideas, derived from coded quotations linked to participants' number.

Figure 2

Relationship Between Categories, Themes, and RQs



Results

There were three themes that arose from this iterative, qualitative analysis: (a) introducing new text to students, (b) reading strategies taught to lowest readers, and (c) methods to increase reading comprehension. Each theme encompassed several categories

and codes. Below, I describe how these themes reflected the study research questions and were derived from participants' interviews. The discussion is organized by RQ.

Results for RQ1

RQ1 was: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding activation of prior knowledge in preparing students for reading text-based material? The first theme, introducing new text to students, was relevant to this research question because this theme described participants' methods, they employ to introduce new texts to their students. This theme was composed of three categories: effort to discover prior knowledge, methods to engage lowest readers, and examples of activating prior knowledge.

Effort to Discover Prior Knowledge.

Eight participants shared how they made an effort to discover their students' prior knowledge when teaching new texts. For example, Participant 1 noted, "I might actually move into having maybe a brainstorm session creating hypothetical situations to allow them time to discuss how they would handle certain things that deal with the same topic." Similarly, Participant 4 commented,

> So we'll have discussions to explore students' prior knowledge. Students work on activities like a graphic organizer or even a class discussion where I've shown a video and we start talking about it, or the kids may do a quick write on what they know about something.

Participant 9 also reported, “Sometime I’ll give them some type of map to work on, meaning a map where it breaks down their knowledge.” Participant 10 noted the importance of being intentional with students during instruction. Participant 10 said,

> I think that's one of the biggest pieces that misses for ESL and lower learning students is that you have to be intentional, they're very literal. So everything has to okay, this is what I want you to look for.

Participant 2 also shared their process of seeking prior knowledge, “I'm asking questions about what they're about to get into. Who remembers World War One who remembers World War Two. And they all say, it's usually a book that they've read.”

In addition to sharing methods, participants also provided reasoning for seeking out prior knowledge. Participant 6 provided the following rationale for this approach:

> I always want to know how much they know before I jump into a text. I modify my lessons and modify my teaching based off what they know. Because if you jump straight in before you know, if they have any prior knowledge, they will be lost.

Similarly, Participant 8 mentioned, “I think that is the most important part of previewing a text. To actively see what type o background knowledge that they have.” Lastly, Participant 7 shared,

> Sometimes I will pull out some of the vocabulary that I think might be challenging for them. or new to them. Yes, article and we'll go over what those words mean and some examples because sometimes they might actually know the

> words when they've heard them but don't recognize them when they see them in print.

These participants were aware of the benefits of accessing prior knowledge when introducing a new text.

Methods to Engage Lowest Readers

Eight participants shared the methods that they used to engage their lowest readers in a new text. For example, Participant 10 described highlighting new vocabulary: "Okay, so one thing I do is I preview vocabulary. And then I choose words that I think my students may not be familiar with just language wise. And so that's something like we'll review." Participant 2 attempted to find other relevant books that would help introduce the text: "When introducing a new topic to students, I search for an article or a picture book that is related to the new topic that we are covering in class." Participant 2 went on to share a specific example of this approach:

> For example, the children were getting ready to learn about the two most common forms of democracy in Europe. And so, there's a book that has this about the Prime Minister Winston Churchill and his dog Rufus. And I understand that children love dogs. And so if you know, they love animals, you can hook them with that.

Participant 3 cited another approach:

> I'm introducing a new text, I think the first thing I would do is what I call a book walk, we kind of walk around the book, we look at the cover of the book, we look

> at the title, we look at the pictures, we look at the spine of the book, we look at the back of the book, for like a summary to set the stage.

Similarly, Participant 4 described, "I teach chunking. And something called Table of Contents, or we annotate text, and we do those together." Participant 5 disclosed that they sometimes share personal experiences to engage students:

> Then, I just tell my personal experience with my grandfather who did live during the Great Depression, they asked me how old I am. And then we just, read an article that gave a lot of background information and watched the history video to prepare them.

These various approaches were all used to engage readers. Lastly, Participant 9 reported,

> Normally what I would do I will open it up to see what their prior knowledge is. And I try to bring it into their world, what's going on in their world. I try to relate it to something in the present or something maybe they have studied in the past.

These various approaches were all used to engage readers.

Examples of Activating Prior Knowledge

Five participants provided specific examples of how they activated prior knowledge in their students when introducing new texts. Participant 7 shared:

> We'll just start off for example, if we were doing an article on Christmas, I would ask the kids about holidays, what celebrations, how many celebrations can you think of around the world? Holidays it's something that I feel they may have no knowledge about because I teach English language speakers who come from other countries. So many times, I'm introducing something that is brand new to them.

> There will be no recalling or prior knowledge. But I'll try to find something that relates to it.

Participant 9 also commented on activating prior knowledge,

> I'll give them a topic to discuss. What do you know about this country? Give me your answers nothing's too small and nothing's too big. And then go from there and let them make up questions. I let them come up their questions. I give them the questions and they respond to my questions.

Participant 1 also reported, "allow them to maybe create something, maybe graphically or visually, from their own knowledge and knowledge that they've acquired through a prior lesson." Participant 10 mentioned:

> So one thing that we always kind of go over in ELA are myths, like Greek mythology. And so, one way we activate prior knowledge is we show like a video clip and ask them to jot short little notes, try to keep it minutes or under. And sometimes I will ask do you know that you've seen a myth, are you familiar with any of them? And they'll kind of like think of like, oh, Medusa is a myth or, oh, you know, Midas Touch and like, you know, exactly, so, sometimes that visual support is very helpful.

These participants exemplified their methodological approach to activating prior knowledge when introducing new texts to their students.

Summary of RQ1 Results

In summary, there were three categories in the theme of introducing new text to students that addressed the first research question. Participants indicated that activating

prior knowledge was extremely helpful when introducing new texts to students. They described discussing topics with their students before teaching a new text to see what prior knowledge they had. Visuals were also used during this exploration to map out the existing knowledge students had. Teachers described how getting a better sense of the students existing knowledge provided a great foundation for teaching a new text.

Results for RQ2

RQ 2 asked: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding direct instruction of reading strategies students can apply in reading text-based material? The second theme, reading strategies taught to lowest readers, was relevant to the second research question. This theme was composed of three categories: most helpful strategies for lowest readers, additional methods to support lowest readers, and examples of successful reading strategy. These categories included the variety of strategies that participants used to engage their lowest readers.

Most Helpful Strategies for Lowest Readers

Several participants shared specific instructional strategies they found most helpful in supporting their lowest readers. For example, Participant 4 reported that chunking was a successful strategy for their students, saying, “Chunking and reading a small paragraph or group of sentences and having students write a small summary in 20 words or less in their own words. This helps me to understand what students have comprehended.” Participant 7 thought that checking for comprehension was also important. Participant 7 voiced, “We always have either comprehension questions that

follow or they have to do like, you know, check for understanding and using those, you know, after every reading, that's how to see if they have actually learned what they've read." Participant 6 also indicated, "You know pulling out those vocabulary words, putting them on the board, having them visually see them, this is something that you can relate to I can relate to this." Lastly, Participant 5 shared,

> And then I do allow them to listen to the audio, I just tell them like, you can't just sit here and stare off into space and listen to the audio book, you need to still follow along. So, when the pages get turned, you should turn the page too. Sometimes I have to remind them or let them know. Because I can tell when some of them are just staring at the book and they don't know what page you're on. I'll announce the page like, so I do it in a way that I just call it out. So that no one's embarrassed specifically. And you'll see a couple people turn the page because they weren't, they couldn't follow along, or they didn't know where we were.

Additional Methods to Support Lowest Readers

Participants mentioned additional methods they use to support the lowest readers in their classrooms that went further than specific instructional strategies. For example, Participant 1 said,

> One thing I think is important too is the importance of having students make a text to life connection. Selecting text that they're actually interested in, or maybe that's better based on their personal interest and text that are on their appropriate reading level, so they are engaged and able to read the material.

Participant 10 also noted,

> But one thing for sure is that they need that scaffolding support, we are always going to make sure that we are having, you know, whole group and small group discussion using task cards. We are intentional about the questions that we are asking and answering and understand what we're looking for and what we need to know.

Participant 3 shared some examples of methods to support lowest readers, commenting, "With of our current curriculum, I do like the fact that there are some strategies embedded in there for students with learning disability, but it can be difficult to incorporate, so you have to just do it on purpose." Similarly, Participant 8 conveyed,

> The consistent use of strategies should be in all classrooms. I think that holds a lot of weight. I really do because if you are using them constantly, every time you introduce a text, if you constantly go back through those same steps, then they will get so used to doing it, that when they read something outside of the classroom or on their own, then they're going to automatically go to that.

These participants demonstrated a variety of techniques that can be used to support students who are the lowest readers in classrooms.

Examples of Successful Reading Strategies

Many participants reported examples of successful reading strategies that they employed in their classrooms. For instance, Participant 6 shared, "In thinking about how much I believe my lowest readers are successful in assimilating new ideas, I have students ask questions in the discussion on the topic." Participant 7 discussed using a read-aloud strategy: "Reading aloud is strategy the best ones because so many, as I said

earlier, many of the students know these words and what they mean but they don't recognize them in print." Participant 8 provided a detailed description of a stepwise method for reading:

> We call it the 1, 2, 3 reading strategy. The first thing that you do is read through the paragraph and highlight in yellow, any unknown words that you don't know. We underline those words, or we'll highlight those words. Then we research what those words are and will make sure the student understands what the word means. Second step is to underline key words and ask ourselves those five W's. Who is it about? What's it about and we underline those key W's in the paragraph. And then of course, the third part of it would be to create the summary sentence.

Lastly, Participant 10 noted, "Because when we're reading it, we're one day reading about reptiles. The next day, we're reading about mammals, I want you [student] to use your background knowledge about that okay, they're both animals, right?"

Summary of RQ2 Results

In summary, the theme of reading strategies taught to lowest readers included three categories that addressed the second research question. Participants identified the most helpful specific instructional strategies they used for their lowest readers, such as chunking and checking for reading comprehension. Participants also shared reading strategies that were more focused on student engagement, such as discussing the topic and integrating students' background knowledge into the reading. Participants offered several examples of the strategies they used.

Results for RQ3

RQ3 asked: What are the perspectives of general education teachers of sixth-grade students, who scored B50PR on NWEA MAP Growth reading assessment, regarding support for assimilation into the student's existing knowledge base to new knowledge offered by text-based material? The third and final theme, methods to increase reading comprehension, included information about how participants ensure that their students gain knowledge from their reading. There were two categories that composed this theme: detecting new information assimilation and view of cognitive reading strategies.

Detecting New Information Assimilation

Eight participants provided descriptions of different strategies that they used to detect new information assimilation in their students. For example, Participant 1 noted, "I think them being able to summarize what they've just read is best way to know if they've understood what they read." Participant 10 shared that discussing new texts helped with comprehension:

> And we're going to go through it together. We discuss the vocabulary we're going to talk about what's going to happen, we're making connections, and you know, we're going to have a little text analysis. And they are very excited, because, number one, they can read it at their right level.

Similarly, Participant 3 commented, "As much as possible in the sixth-grade classroom, we try to have student conferences as they're reading. I may just take a chapter give them text dependent questions."

Participant 2 reported having students give presentations to demonstrate their understanding:

> I have shifted, where they don't do as much sitting at the desk answering these questions as they do presentations. They began to do the presentations, I understand that they are going to go through that text not once or twice, they're going to go through that text multiple times. They have to complete a project paper where they put the information on there, and it requires them to read the text over and over. Then they will practice the presentation that they have to do with each other.

Lastly, Participant 5 revealed, “They can just talk about the other elements versus the four to five questions about the chapter. And you really realize that they're thinking, deeper about what happened in the story.”

View of Cognitive Reading Strategies

Seven participants provided their perspective regarding using these strategies in their classrooms. For example, Participant 1 stated, “I think that what is the most foundational, the most important thing when teaching lower-level readers is helping them connect to the text or helping them connect to the lesson.” Participant 10 also shared,

> I think, you know, cognitive reading strategy strategies actually are built for the way our brain is designed and the way our brain works. Yeah. I think they're beneficial for all students in particularly supporting our, lower level reading students. Sometimes it's best to, just work with what actually works and that is foundational.

Participant 4 supported cognitive reading strategies: “I think using cognitive strategies are important because the skills can be transferred over to other class subjects.” Participant 8 also conveyed, “I think cognitive strategies important. I think we have to break it down into the smallest of steps for them. In my perspective, we just have to.” Lastly, Participant 9 emphasized, “I think it's very important for to us engage whatever strategies you can to support our students because reading is something they're going to do the rest of their life.” Overall, these participants supported the use of cognitive reading strategies.

Summary of RQ3 Results

In summary, two categories in the theme methods to increase reading comprehension were relevant to the third research question. Participants discussed the importance of identifying new information assimilation in their students. The methods teachers used to assess assimilation included discussing the text to evaluate reading comprehension and asking students to give presentations about the text. Participants conveyed the methods they used to determine the extent of reading comprehension for their students. They also revealed their personal perspectives on the use of cognitive reading strategies.

Evidence of Trustworthiness

Credibility was increased by recording the semistructured interviews so the data could be transcribed accurately. I increased creditability by ensuring the interpretation and expression of participants views (Ryan et al., 2007). I established trustworthiness by ensuring that the data collection methods could be traced back and verified to the primary

source (see Mathison, 2005). Throughout this basic qualitative study, I also followed the quality assurance measures outlined in research protocols pertaining to locating participants, conducting interviews, analyzing, coding, and reporting data.

I provided detailed descriptions regarding data collection and analysis based on participant interviews. Detailed descriptors can allow findings to be applied to other situations (Shenton, 2004). To enhance transferability to other contexts, I minimized my personal biases and provided extensive reports of the process, procedures, and results (see Yin, 2014).

To increase dependability, I performed member checks with interviewees by asking them during and after that interview process whether my understanding of their shared information was correct. I also took procedural actions such as evaluating data collected from various sources. I cross-checked the data from audio recorded interviews and transcripts to ensure logical coherence.

Throughout the study I made an effort to be reflective, being cognizant of my role as a researcher, in order to refrain from being subjective. I used a reflective journal was as a tool to reinterpret my experiences, notions, and learning, assisted me in connecting ideas to concepts, as indicated by Quinton and Smallbone (2006). Additionally, member checking was a practical method I used of returning data or findings to participants to examine for truth and fidelity (see Birt et al., 2016). I provided participants with a copy of their interview transcript to review for accuracy.

Summary

Through analysis of these interviews with teachers who work as general education teachers whom all had taught students who scored at the B50PR reading level on the NWEA MAP I derived multiple themes that were related to the overarching research question for this study. Participants indicated that activating prior knowledge was extremely helpful when introducing new texts to students. They also emphasized that discussing topics with their students before teaching a new text to see what prior knowledge they had. Teachers described using visuals during this exploration to map out the existing knowledge students had. Teachers described how getting a better sense of the students existing knowledge provided a great foundation for teaching a new text.

In addition, participants identified the most helpful strategies they used for their lowest readers, such as chunking and tests of reading comprehension. Participants also shared their most successful reading strategies, such as discussing the topic and integrating students' background knowledge into the reading

Finally, participants discussed the importance of identifying new information assimilation in their students. The methods teachers used to assess assimilation included discussing the text to evaluate reading comprehension and asking students to give presentations about the text. Furthermore, participants suggested they supported the utility of cognitive reading strategies across all subject areas. The next chapter, Chapter 5, includes a presentation of additional insights, implications, and recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this basic qualitative study using interviews was to explore sixth-grade general education teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. I conducted the study to explore how teachers across various subject areas support students who read far below grade level. Findings indicated that teachers find activating prior knowledge is extremely helpful when introducing new texts to students; teachers employ specific instructional strategies such as chunking and checking for reading comprehension, and employ strategies focused on student engagement; and that teachers take active steps to assess assimilation, including discussing the text to evaluate reading comprehension and asking students to give presentations about the text.

In this chapter, I provide a discussion of the research findings, focusing on the interpretation of the themes within the context of the literature and the framework. The chapter also includes the limitations of the study, recommendations for future research, and implication of the study. The chapter ends with a conclusion that highlights the key insights gained from this study.

Interpretation of the Findings

A key finding in this study was that teachers are deliberate when they introduce new texts in connecting the text to students' existing knowledge. This finding recalls the suggestion of Yang (2011), that fundamental to reading instruction engagement of ongoing mental activities used by readers to combine new knowledge with prior knowledge. According to Hattan and Alexander (2020), assessment of the prior

knowledge of students can be critical for teachers because the patterns of prior knowledge activation can give teachers guidance on how students can be assisted. When interpreted within the framework of Resnick's (1985) cognitive theory of instruction, the finding that teaches try to discover prior knowledge of student is consistent with one of the three primary strategies from this conceptual framework.

A second key finding that emerged from the data was that general education teachers teach the lowest readers specific cognitive reading strategies and strategies to increase student engagement. Hussein et al. (2019) demonstrated empirical support for the effectiveness of specific reading strategies such as chunking and Mojarrabi-Tabrizi et al. (2019) described the effectiveness of scaffolding. Several authors (e.g. Abu-Snoubar, 2017; Al-Mekhlafi, 2018; Bratsch-Hines et al., 2017; Hein, 2018) indicated the important of focusing on the lowest performing students as a necessary teaching strategy to increase achievement in these students. Understanding the unique needs or background of struggling students is usually important for teachers in order to determine the appropriate teaching strategy (Abu-Snoubar, 2017; Al-Mekhlafi, 2018). Cultivating an environment where engagement of students is enhanced can facilitate better outcomes for reading abilities of students (Ho & Lau, 2018; Merga & Gardiner, 2018). For instance, Sabol et al. (2018) found that students' positive reciprocal actions with teachers increased literacy skills; positive reciprocal relationships with peers resulted in improved language skills. Overall, these findings have a strong empirical basis (Hattan & Alexander, 2020; Ho & Lau, 2018; Merga & Gardiner, 2018; Sabol et al., 2018), suggesting that general education teachers are using empirical-based strategies for helping struggling readers

improve their reading abilities. However, although the teachers in this study appeared to be using strategies to address the needs of struggling readers, there was little consensus on what strategy was the most optimal.

A third key finding of this study was that general education teachers focused on increasing the reading comprehension of struggling students to improve their reading mastery. Teachers described their efforts to assess assimilation of knowledge students gained from reading, including discussing the text to evaluate reading comprehension and asking students to give presentations about the text. Such strategies align with previous researchers, who highlighted of the importance of reading comprehension to the overall reading abilities of students (de Boer et al., 2018; Peng & Fuchs, 2017). Reading comprehension is one of the most complex tasks that people perform, which is also reflected in the difficulty in teaching reading comprehension in the classroom (Elleman & Oslund, 2019). This process of knowledge activation can be critical in understanding how new information is assimilated into the knowledge base of students (Hattan & Alexander, 2020). The current findings are consistent with Resnick's (1985) cognitive theory of instruction, because Resnick identified as critical in reading instruction the assimilation of new text-based knowledge into an existing knowledge base and use of cognitive reading strategies to activate the acquisition of reading strategies during instruction. Overall, the findings in this study highlight the practical application of Resnick's cognitive theory of instruction among struggling readers, emphasizing the applicability of cognitive-based strategies in reading instruction among struggling readers in the sixth grade.

Limitations of the Study

There are several limitations of the study that could affect the trustworthiness of the results. The first potential limitation of the study is the focus on the lowest or struggling students as the sample, which is not a homogeneous group (see Morris et al., 2017). In this study, I did not group these struggling students based on co-occurring areas of reading related weaknesses. Struggling readers have varying levels of skills in decoding, fluency, comprehension, or vocabulary (Clemens et al., 2017; Morris et al., 2017). A study that did differentiate students from varying levels of abilities and backgrounds might have generated different results.

Another potential limitation of this study is that the data were based on the self-report or self-descriptions of the participants. There were no other data collected to triangulate or verify the claims of the teachers who participated in this study, meaning that the findings are highly reflective of what was shared by the general education teachers during the semistructured interviews. I collected no other confirmatory data, such as from classroom observations or focus groups of parents or students, to enhance the credibility of the findings.

Another potential limitation of this study is that reading comprehension is a difficult construct to measure or explore in a study because of its complexity (Elleman & Oslund, 2019). This difficulty was reflected in my inability to precisely describe how teachers' use of cognitive-based strategies manifest in their reading instructions. The findings reported from this study only reflected the strategies that were used by teachers

to assist sixth-grade students who have been struggling with reading and their perspectives on why these strategies were being used.

Lastly, Due to the COVID-19 pandemic, many schools in the target state closed temporary and conducted instruction remotely for several months in the 2022–2021 school year. Teaching and learning were disrupted because of these instructional changes, because of issues with personal and family, health, and well-being (see Lessard & Puhl, 2021). These disruptions may have posed stressors which might have affected teacher perspectives regarding use of cognitive reading strategies in supporting B50PR readers.

Recommendations for Further Research

The recommendations for further research are grounded on the strengths of the research findings, and the limitations of the current study also informed the recommendations for future research. The first recommendation is to further explore how teachers implement strategies that help struggling readers to improve their overall reading abilities. Crone et al. (2019) suggested that future researchers should focus on how teachers implement reading supports for sixth-grade students with reading challenges, which may be a good starting point for future studies. I pursued Crone et al.'s suggestion in the current study, but future researchers should further explore this issue in order to address various aspects or facets of cognitive reading strategies. Future researchers can differentiate various cognitive-based strategies for reading instruction in order to have a deeper understanding of how teachers address the problem of low reading abilities among students.

Another recommendation is that researchers in future studies be more specific in defining struggling readers, to increase the precision of the findings. For instance, struggling readers have different baseline strengths and weaknesses, which means that different instructional strategies may be more optimal depending on the background of students. Hence, future research scholars could improve the current study by having a more well-defined sample criteria that recognizes that diverse groups of students who are struggling from reading.

The final recommendation for future research is to determine which among the different cognitive reading strategies is the most effective. The scope of the current study was confined to the perspectives of general education teachers about the different strategies that they use to address the needs of struggling readers in the sixth grade. Individual investigations have been conducted to examine the effectiveness of individual strategies (Hattan & Alexander, 2020; Hussein et al., 2019), but studies directly comparing the effectiveness of different cognitive-based strategies from each other are still lacking. Hence, this proposed research could address this particular gap in the literature.

Implications

An implication for practice that derives from this study is that teachers across all subject areas use a variety of techniques and strategies to address the needs of struggling readers. Teachers in this study described a variety of methods they used to activate students' prior knowledge, provide specific cognitive reading strategies, engage students in the reading and learning process, and help students integrate new knowledge into prior

understandings. However, the literature demonstrates that a wealth of strategies are possible, and creative methods to support students and improve their reading mastery could be employed by teachers to positive effect. In addition, more efforts are needed to better define administrative policies on identifying struggling readers and providing them with support based in established cognitive reading strategies. Administrators and policy-makers should implement more effective early identification of students who demonstrate difficulty with reading and prereading skills, to avoid the current situation of students who progress as far as sixth grade without learning to read beyond the B50PR level. Another implication of the research findings at the policy level is that professional development may be needed to provide all teachers of general education subjects with the necessary instructional strategies to address the needs of struggling readers.

The methodological implication of the study is that a more advanced or complex designs might more fully capture the current state of reading instruction for struggling readers. In the current study I relied on semistructured interviews as the sole data source, which provided rich information, but may not be as exhaustive and comprehensive for a complex issue as understanding the state of instruction for struggling readers. Moreover, the reliance on a single data source prevented triangulation to confirm the research findings. However, the theoretical implication of this research study is the strengthening of Resnick's (1985) cognitive theory of instruction as a framework for assisting struggling students with their reading. The cognitive theory of instruction is useful as a framework by which teachers can provide effective instruction of students who struggle in reading. The results of the current study provided some evidence that the techniques

espoused in this theory are currently used by general education teachers. More confirmatory evidence is necessary, however, in order to establish the empirical support for Resnick's (1985) cognitive theory of instruction as framework for assisting struggling students with their reading.

Many students continue to read far below grade level, suggesting that teacher supports for reading may be inadequate (Bippert & Harmon, 2017). Reading comprehension is a particularly challenging aspect of instruction for teachers and learning for students (Elleman & Oslund, 2019). Positive social change may result from this study if teachers are inspired and supported to address the reading struggles of students using cognitive reading strategies described in this study. Some of these instructional strategies include the use of chunking, checking for comprehension, scaffolding, being consistent with the use of strategies, and reading aloud. The current study provided some evidence that these cognitive-based strategies for teaching reading in the sixth grade are taught, but that teachers may need more support in this effort.

Conclusion

The purpose of this basic qualitative study was to explore sixth-grade general education teachers' perspectives regarding cognitive reading strategies used in support of students who score B50PR on the NWEA MAP Growth reading assessment. Findings indicated that sixth-grade general education teachers use several cognitive-based instructional strategies such as activation of prior knowledge, direct instruction of reading techniques, such as chunking of text, and assimilation of text-based information into students' existing store of knowledge. These strategies were described by teachers across

all subject areas, including language arts, social studies, science, and mathematics. These findings suggest that teachers have the knowledge and the skills to use several cognitive-based strategies in their instruction of reading to struggling readers. If teachers are supported in these efforts, they may help struggling sixth-grade readers finally achieve reading mastery and gain important new knowledge from reading materials in all subject areas.

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Appendix A: Interview Questions

1. Imagine that you are introducing a new text - maybe an article or a book or something - to your lowest readers. What sorts of things do you do to help these students get ready to read this new text?
    a. How much do you try to discover what students already know about the topic before you ask students to start reading the new text?
    b. Could you please describe specific examples of how you activated students' prior knowledge taught in previous lessons about a topic to help students in reading a new text?
2. Sometimes teachers give students hints about how to approach a text, like reading in meaning units, noticing a paragraph's topic sentence, things like that. What sorts of reading strategies do you teach your lowest readers to use?
    a. Can you describe how you instruct your lowest readers in using those sorts of specific strategies?
    b. What reading strategies do you find are the most helpful for your lowest readers?
    c. Tell me about a time that a specific reading strategy seemed to help one of your lowest readers?
3. After your lowest readers have read a new text, how do you help them absorb the information they learned from their reading?
    a. How do you know if your lowest readers actually learned anything from a new text - if they've assimilated new information?

   b. How much do you think your lowest readers are successful in assimilating new ideas they get from their reading?
   c. Tell me about a time when your lowest readers were excited or engaged in something new they learned from their reading.
4. We've been talking about what's called cognitive reading strategies, strategies for helping students be ready to read something new and maybe difficult. What are your perspectives about using these cognitive reading strategies to support your very lowest readers, the students who scored B50PR on NWEA MAP Growth reading assessment?
5. What more can you tell me about how you support your lowest readers in reading and learning from the texts they read in your class?