Examining the Relationships Among Teacher Mindset, Knowledge of Text Complexity, and Text Selection

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A Dissertation Submitted in Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy in Literacy Studies

Middle Tennessee State University

August 2022

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This research is dedicated to my husband and children who lovingly encouraged and believed in me throughout this journey- Craig, Cory, Becca, Nate, sister Vickie who inspired me and kept me going, Mom and loving memory of my Dad.

ACKNOWLEDGEMENTS

ABSTRACT

The Common Core State Standards have driven an awareness for college and career readiness in schools today. This effort has brought to light the role text complexity plays in the classroom and the importance of students being exposed to complex text. Educators' understanding of complex text and their expectations when choosing text is inconsistent, affecting student's capacity to learn and understand complex text. One goal of this research is to obtain new insight related to how and why text is chosen for instruction among educators teaching in elementary grades. This study will investigate the relationship of teachers' mindset on their choice and knowledge of complex text using regression to examine these relationships. There were no significant relationships found. Implications for the educational field include advancements in professional development that specifically address the importance of text complexity decisions about text choice in the classroom.

Keywords: teacher knowledge, teacher mindset, teaching choice of complex text, text complexity

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LIST OF ABBREVIATIONS

ACT: American College Testing

CCSS: Common Core State Standards

TC: Text Complexity

TTCKS: Teacher Text Complexity Knowledge Survey

TLMS: Teacher Literacy Mindset Survey

TOI: Theory of Intelligence

NAAL: National Assessment of Adult Literacy Demographics

NAEP: National Assessment of Educational Progress

PALS: Patterns of Adaptive Learning Scales

CHAPTER I

INTRODUCTION

When considering literacy rates in the nation, the urgency for improved practices in the classroom becomes imperative. In 2019, only 35% of 4th grade students scored at or above proficiency in reading on National Assessment of Educational Progress (NAEP, 2019), dropping from 37% in 2017, leaving students 65% below proficiency in reading (NAEP, 2019). According to the National Assessment for Adult Literacy (NAAL), in 1992, 42% of adults lacked literacy skills with 15% being proficient and in 2003, 43% of adults scored at the basic or below basic levels with only 13% being proficient (National Assessment of Adult Literacy Demographics, 2014). Literacy competence continues to be an issue that needs to be addressed, and the cycle of below proficient readers must change. There is a need for increased literacy rates among students while they are still attending K-12 schools. The ability to read and understand proficiently is an essential skill needed in order to be successful in the work force. For instance, in 2006 the American College Testing (ACT) corporation produced a report that showed only half of the high school students tested demonstrated the academic skills necessary for success in college, with only 51% ready for the demands of reading at the collegiate level (ACT, 2006).

Since the inception of Common Core State Standards (CCSS) in 2010, the term "college and career readiness" has been used to inform policy and standards across the nation. College readiness is defined as the level at which students are prepared for college-level courses without needing remediation in credit-bearing course work (ACT, 2006). By 2016, 30.3% of first-time college students completed and graduated from 2-

year institutions, and 59.8% graduated from 4-year institutions (McFarland et al., 2018).

One major issue with college retention may be due to students' lack of the necessary

skills to understand and learn from the complex texts utilized in college courses.

Because many students across Tennessee struggle to read at a proficient level, the

state adopted new Tennessee Academic Standards in K-12 education in 2017. These

standards came to fruition as a result of the Common Core State Standards (CCSS). The

standards are derived from 10 reading standards for grades K-5 and 6-12 around literature

and informational text. These revised academic standards emphasize three important

instructional shifts around text complexity, collecting evidence from the text, and

building knowledge around literary and informational text (Tennessee Department of

Education, 2016). Text complexity stands as its own standard (Standard 10) and serves as

a bookend for standards 2-9, general standards around reading and analyzing text;

however, teachers were provided little guidance on what these standards should look like

in the classroom.

Text complexity is often interchanged with readability; however, while they are

related, they are not the same. Readability is how easy the text is for the reader to

understand taking into account only quantitative features (Amendum & Conradi, 2017;

Nelson et al., 2012). Text complexity, on the other hand, is determined by multiple

factors including: 1) quantitative measures, 2) qualitative measures, and 3) reader and

task considerations (CCSS, 2010a).

In recent years, determining text complexity has become a controversial topic of

discussion among educators in schools, districts, and at the state level (Benjamin, 2012;

Valencia & Wisxon, 2014). Since the implementation of CCSS, teachers have become

more aware of text complexity and have taken a closer look at what that means. Fisher et al. (2016) defined text complexity as multidimensional, meaning it requires us to consider not only the words on the page but also the reader's characteristics and the task readers are asked to do based on the text.

Text plays an important role in classroom instruction (Hiebert & Martin, 2002). For students to adequately comprehend complex texts, they must be exposed to such texts. Likewise, teachers need to understand the process of selecting complex texts for a variety of reading purposes. It is essential that teachers can choose text that is not only complex but worthy of time and attention for the students and instruction (Fisher et al., 2016; Hiebert, 2012; Hiebert, 2014). This might require a change of mindset for some educators who do not have the understanding or expectations that their students can read and understand complex texts. A historical perspective allows a better understanding of how defining and measuring text complexity has evolved over time.

History of Text Complexity

Lively and Pressey examined reading materials in 1923 to determine reading difficulty using the 1921Thorndike word frequency measure. This measure is often defined by sentence length, syntax, vocabulary, and word count (Chall, 1947; Fisher et al., 2016; Fry, 1977; Hiebert & Mesmer, 2013; Nelson et al., 2012; Pearson, 2013; Tekfi, 1987).

Vogel and Washburne (1928) evaluated elementary text utilizing ten elements with multiple correlations. Teachers then analyzed text to decide grade level based on a complicated process of counting specific elements to determine a reading score that was then equated to a grade level. A formula used to determine text difficulty has been

established by the following items: vocabulary difficulty, sentence structure, semantics and syntax, number of sentences and words in a paragraph, words on a line, number of lines in a book, and word count (Amendum & Conradi, 2018; Vogel & Wasburne, 1928).

After determining there were no scientific ways to measure text difficulty, Dale and Tyler (1934) investigated potential factors that would quantify features which impact text difficulty. Their study was limited to examining personal health articles from magazines and elementary textbooks. The features included four factors: (a) domain specific vocabulary from easy words to more difficult words based on Thorndike's manual; (b) total number of easy versus hard words, the more unfamiliar words are in the passage the more difficult the text; (c) common vocabulary words using Dale's eight thousand common words; and (d) sentence length, semantics, and syntax based on structure, complexity, and grammar (Dale & Tyler, 1934). Dale and Tyler then condensed all factors for difficult text into more manageable predictions using three factors: (a) word count using domain specific words, (b) count of common words, and (c) syntax specific to the number of vague clauses (Dale & Tyler, 1934). Text difficulty plays an important role in comprehension (Chall et al., 1996) and so there are more factors that should be considered other than difficulty of words. Text complexity must be measured and assessed through multi dimensions (Fisher et al., 2016).

Quantitative Measures of Text Complexity

Current methods for measuring text complexity focus on the same or similar linguistic features as some of the readability formulas of the past. Despite the acceptance of these long-held standards, methods of determining text complexity are still heavily debated among researchers (Hiebert & Mesmer, 2013). In order to understand the

complex nature of measuring text difficulty, the following metrics illustrate the various available measures (Nelson et al., 2012). Common features of measures of text complexity include sentence length, word count, and word frequency or word length (Graesser et al., 2011; Renaissance Learning, 2012). More sophisticated measurement tools such as SourceRater and Coh-Metrix include metrics in vocabulary difficulty, text genre, syntax, and cohesion within and between words, sentences, and paragraphs (Educational Testing Services, 2014; Graesser et al., 2011; Sheehan et al., 2010, Coh-Metric, 2019).

The Lexile Framework for Reading is considered a scientific approach for measuring readability and the demands of the text (MetaMetrics, 2019). Lexile measures are numeric measures that take into account reading ability and text complexity, which are shown as a number (e.g., 850L; MetaMetrics, 2019; Nelson et al., 2012). The Lexile scale is a developmental scale that measures the reader's ability, based on assessments, and text complexity, which ranges from 200L to 1700L. Both reading ability and text complexity are needed to match the reader to text. The Lexile scale is unique in that it uses the same developmental scale when evaluating reading ability and text complexity (Nelson et al., 2012).

When matching readers to text to determine text complexity, there are both Lexile reader measures and Lexile text measures. According to MetaMetrics (2012), over 35 million students have received a Lexile reader measure determined from specific reading tests or reading programs (e.g., Achieve3000). These measures are used in all 50 states and 180 countries and range from 0L to above 2000L. A reader's Lexile is determined in intervals of five with the measure 5L being the lowest and 2000L being the highest. A

measure below 5L is considered a beginning reader BR. MetaMetrics analyzes book

Lexile levels. Over 100,000,000 books, articles, and websites have received a Lexile

measure based on vocabulary, sentence length, and word count analyzed by MetaMetrics.

Notably, the CCSS suggested Lexile level be used within each grade band and that

students should be able to independently read and understand texts within these bands

(CCSS, 2010a).

Qualitative Features of Text Complexity

Qualitative analysis for assessing complex text differentiates more text variables

than quantitative features alone (Chall et al., 1996). Examining both quantitative and

qualitative measures of text complexity is important so teachers can make informed

decisions about the difficulty of text they use for instructional purposes (CCSS, 2010a).

Understanding the qualitative measures assists teachers in designing meaningful reading

tasks and helps them make decisions about choosing individualized text for each student

(Fisher et al., 2016).

The CCSS (2012) provides a precise rubric to analyze text for qualitative features.

Four indicators of text complexity include text structure, language features, meaning, and

knowledge demands, which provide a comprehensive evaluation of text complexity. In

addition to the four indicators to determine complexity, there is a progression of

difficulty: exceedingly complex, very complex, moderately complex, and slightly

complex. Qualitative analysis requires an analysis of text features that cannot be

quantified by a statistical formula.

According to Chall et al. (1996) and Dickson et al. (1995), text structure is

determined by how the text is organized. Text that is simple and organized in a

predictable time and sequence is less complex than text with time shifts, flashbacks, or manipulation of time and sequence. Language features are encompassed by writing style to include conventions, sentence structure, and vocabulary. Literal, clear language tends to be easier than texts that rely on figurative, ambiguous, misleading, archaic, or unfamiliar language. Text with more familiar vocabulary is less complex than domain specific or academic vocabulary. Meaning and purpose consists of the sophistication of the ideas in the text. Literary texts with a single level of meaning tend to be easier to read than literary texts with multiple levels of meaning or underlying meaning. An explicit purpose is considered easier to comprehend than an implicit, hidden, or obscure purpose. Knowledge demands are based on the background knowledge needed by the reader to understand specific concepts within text. Texts that provide this knowledge are considered less complex than those that assume the reader has this knowledge or experience (CCSS, 2010a; Chall et al., 1996).

As more policy makers, publishers, schools, and district leaders emphasize the importance of text complexity teachers need to understand text complexity. However, selecting appropriate text for instruction is a complex process and teachers' understanding of text complexity levels depends on their knowledge and experience of the different measures used for text complexity.

Current Recommendations for Text Selection

Knowledge development

The more knowledge students have the better equipped they are to access complex text (Liben et al., 2016). Researchers recommend that teachers select texts to enhance content area knowledge development as well as content relevancy for students

(Duke, 2004; Hiebert, 2012). They also recommend that text offer a wealth of knowledge for students in order to be worthy of instructional time (Hiebert, 2012).

Vocabulary

The role of vocabulary is one feature for determining complexity of text (Amendum et al., 2017). Stahl (2003) suggested that vocabulary is the most important factor in determining text complexity. Most formulas quantifying complexity analyze vocabulary. Typical text written in English comes from a core vocabulary derived from 2,500 complex word families. These word families account for 90% of the words in targeted text. The other 10% come from rare words that make up 88,000-word families (Hiebert & Pearson, 2013; Hiebert, 2014). Therefore, students need to be automatic with word meaning of core vocabulary in order to better comprehend (Hiebert, 2012; Hiebert & Pearson, 2013; Stahl, 2003).

Researchers have found that vocabulary plays an important role in comprehension, and therefore, recommend selecting books that provide opportunities for language development (Wright & Cervetti, 2016). When selecting text, researchers emphasize the importance of establishing vocabulary demands that are challenging in the text and determine what students need in order to build vocabulary knowledge (Hiebert, 2012; Hiebert & Mesmer, 2013).

Motivation

Students typically spend less than 20% of the reading block reading text at school and very little outside of school (Hiebert, 2012). In order to activate students' motivation for reading challenging text, they should be allowed to explore topics and have a choice related to the student's unique interests (Guthrie et al., 2007; Hiebert, 2012; Hiebert &

Sluys, 2014). Research further suggests that increasing the amount of time students engage in reading creates an environment that builds stamina and promotes practice in preparation for reading longer text. This will potentially create habits for more volume of reading (Hiebert, 2012).

Instructional Practices Related to Text Complexity

Historically, the practice has been to give students text at their instructional level therefore giving little if any exposure to more challenging text (Fisher et al., 2012). Limiting students' exposure to complex text can fail to prepare them for the demands of Common Core college and career readiness (Fisher et al., 2012) anchor standard 10 which states, "read and comprehend complex literary and informational texts independently and proficiently" (CCSS, 2010). Therefore, this could bring a shift in teachers' practice around matching students with text. Interaction with complex text requires teachers to scaffold supports to guide students through challenging text (Hiebert E. H., 2013; Papola-Ellis, 2014; Valencia & Wixson, 2014).

Many instructional strategies support the increasing use of complex text including repeated reading of text, echo reading, and partner reading, all of which are ways to support students' reading complex text (Hiebert, 2012). Teachers who have knowledge of these supportive strategies may be able to effectively use more complex text over time with students, positively impacting students' reading achievement.

Teacher Expectations and Perceptions of Text Complexity

Hattie (2012) identified that teacher expectations had a moderate effect on student achievement. Other research supports the connection between teacher expectations and students' reading success (Pressley et al., 2001; Warton-McDonald et al., 1998). Text

complexity choices may be one way in which teacher expectations influence student outcomes. Teachers who have high expectations for students may select appropriate complex texts that will sufficiently challenge students and lead to reading growth. Providing increasingly difficult text matched to readers' needs is an important skill for teachers (Fisher et al., 2016; Hiebert & Martin, 2002). Teachers who are able to support readers appropriately with complex text may achieve greater student outcomes than those who do not successfully match the supports needed (Amendum et al., 2018; Hiebert & Martin, 2002). Teachers must understand what is sufficiently challenging and what is too difficult for students to successfully master. If a text is too far outside a student's ability level, s/he may struggle to comprehend what is read and become frustrated. The text choice can influence the experiences students have in reading (Hiebert & Martin, 2002). Despite the importance of text complexity choices, there has been relatively little research on professional development related to text complexity and the influence of text choices on student reading achievement.

Few studies have explored teachers' perception of text characteristics. Fitzgerald et al. (2015) examined teachers' views of important text characteristics for younger elementary students. Findings from this study suggested that teachers perceived decoding features to be more important than qualitative features for determining the complexity of text. Although this study added to the body of knowledge about text complexity, it focused only on teacher perceptions without testing teachers' actual knowledge of text complexity. Future research, therefore, should consider teachers' knowledge of complex text.

Teacher Expectations and Mindset

Studies related to teacher expectations found that those with high expectations had positive gains in the classroom related to student improvement (Rosenthal & Jacobson, 1968; Rubie-Davis, 2016). Inextricably tied to teacher expectations is mindset. Educators are able to strengthen learning and motivation or weaken it through the beliefs they convey to students (Dweck, 2007). Research has found that teachers can impact a student's mindset via practices in the classroom (Park et al., 2016). In particular, teacher's theory of intelligence can be positively or negatively related to a student's ability to persevere (Dweck, 2007; Park et al., 2016).

Mindset can be defined as a theory of intelligence, one's belief about IQ, and is often synonymous with intrinsic or extrinsic motivation (Dweck, 2007). Sparked by an interest in how people deal with failure, Dweck's research focused on people who persevere through difficult or hard problems (Dweck, 2006). After studying students' motivation for over 30 years, Dweck found that motivated students often have the ability to endure hard tasks through effort, rather than the belief they have the natural intelligence to be successful in the task (Dweck, 2007).

Dweck (2006) defined growth mindset as the ability to persevere through difficult tasks or being mastery goal-oriented in learning. This type of mindset is evidenced by one's ability to work through difficult tasks, by applying the effort necessary to learn, and the belief one can succeed; conversely, failure is often viewed as a lack of effort. Growth mindset, also known as the incremental theory, is a belief that intelligence can be changed or developed through practice and effort and is therefore malleable (Blackwell et al., 2007; Dweck, 2006). Fixed mindset, also known as entity theory, is the belief that

intelligence is innate: one is born with certain abilities and therefore, no matter how much effort is involved, it cannot be changed (Dweck, 2006). Those with a predominantly fixed mindset are performance goal oriented, meaning they tend to focus on their ability to perform tasks. People with a fixed mindset often avoid challenging tasks in an attempt to avoid failure, as failure equates to lack of ability. Fixed mindset is, in essence, the belief that intelligence cannot be changed (Blackwell et al., 2007; Dweck, 2006).

Society has increasingly put more focus on intelligence or ability than empowering students to put in the effort to be successful in academics (Dweck, 2007). Effort produces longer lasting, deeper, and more durable learning (Brown et al., 2014). Students that are praised for their innate ability rejected harder tasks and see their failure as a result of not being smart enough (Haimovitz & Dweck, 2017). When students believe their intelligence enabled success, they became discouraged as tasks became more challenging. Too often, these students give up and stop trying (Blackwell et al., 2007; Lin-Siegler et al., 2016). This type of thinking creates a false sense of success when students erroneously believe that no effort in academic achievement equates to being more intelligent (Rattan et al., 2012). Conversely, a culture in which effort and grit are encouraged often results in students who challenge themselves rather than rely on perceived innate ability (Dweck, 2007).

Teaching students to have a growth mindset may encourage them to put forth more effort and try more challenging tasks, which in turn may produce higher achievement or growth in student academics. Dweck (2007a) recommended praising students for their efforts, even when they were wrong or made mistakes, rather than praising them for being "smart." Dweck (2007b) stated that educators are doing students

a disservice when they choose not to acknowledge the effort put into challenging tasks. Unfortunately, not acknowledging effort can result in teachers having lower expectations of students by giving them fewer complex texts and less challenging tasks. People with a growth mindset might look at challenges and mistakes as opportunities to learn rather than opportunities for failure. Dweck (2007a) advocated the need for a shift in the belief that failure comes from lack of effort rather than lack of intelligence (Dweck, 2007). The impact of these two theories on student outcomes can be life altering and being able to implement the incremental or growth mindset theory in one's own challenges could be the key to academic success for all students (Blackwell et al., 2007).

Incremental theory focuses more on the process of learning and can be developed while entity theory focuses on performance instead of effort. The way in which teachers operationalize these theoretical frameworks influence student outcomes and can be life altering as the student progresses through the educational system and into the workforce. The ability to implement incremental or growth mindset theory in overcoming one's own challenges may be the key to academic success for many students (Blackwell et al., 2007). Research suggests that teachers with growth mindsets choose more challenging tasks for their students (Claro et al., 2016; Dweck, 2007b; Haimovitz & Dweck, 2017; Lin-Siegler et al., 2016). Examining the relationships among teacher mindset and decisions related to text complexity may provide information that opens doors to more targeted professional development and improved student reading achievement.

Rationale for the Current Study

The investigation of teaching practices is essential and often completed through observational studies or teacher self-report. According to Moats, if teachers do not have

the needed knowledge to teach reading instruction or intervention, they will not be in the position to take responsibility for what their students learn (Moats, 1999; Moats, 2004).

The need for college and career readiness has placed an emphasis on students' ability to read and interact with complex text and the manner in which teachers are equipped to choose appropriate texts for instruction. This research explored elementary teachers' mindset, knowledge of text complexity, and how they choose complex text for instructional purposes by using two survey instruments. The research will help us better understand whether teachers' choices for text are related to their instructional practices. The goal of this research is to explore three aspects of the teaching in relation to text complexity: the link between teachers' mindset, teacher text complexity knowledge, and their choice of complex texts for instructional purposes. This study examined the following research questions:

Research Questions

1. What is the relationship between teacher mindset (teacher growth mindset and teacher literacy mindset) and instructional practices (i.e., Lexile text choice, number of planned strategies)?

2. What is the relationship between text complexity knowledge and instructional practices (i.e., Lexile text choice, number of planned strategies)?

3. What is the relationship between teacher text complexity knowledge and the number of hours of text complexity professional development?

4. What factors do teachers consider when determining text complexity?

5. What are teacher perceptions about text complexity?

CHAPTER II

LITERATURE REVIEW

Introduction

To better understand the literature related to mindset theory and teacher

knowledge, a review was conducted in these areas: mindset and achievement, mindset

and reading achievement, teacher mindset and the impact on reading achievement and

teacher content knowledge of text complexity. This review of the literature encompassed

studies about mindset and educational outcomes and included quantitative, qualitative,

observational, and mixed methods studies. First, studies exploring the way in which

growth and fixed mindsets influenced academic outcomes for students were reviewed.

Next, research-based evidence on growth mindset of teachers and the impact on student

achievement was reviewed. Lastly, studies specific to text complexity and teacher

knowledge are described as part of the review of the literature.

Measures of Mindset

Dweck (1999, 2006) developed measures to determine if one has a growth

mindset or fixed mindset. These measures are often used or have been refined for further

research (Blackwell et al., 2007; Park et al., 2016; Petscher et al., 2017). Measures of

growth and fixed mindset are derived from the Theory of Intelligence (TOI)

questionnaire measured on a 6-point Likert scale to include statements such as "You have

a certain amount of intelligence, and you can't really do much to change it," or "No

matter who you are, you can significantly change your intelligence level" (Dweck, 2006).

Many studies have adapted the mindset measure, TOI Scale, to include theory of

intelligence items along with domain specific questions (Dweck, 2006; Petscher et al.,

2017; Yeager et al., 2016). For educational purposes, the TOI scale has been adapted into student-friendly language, exchanging the word "intelligent" for "smart" (Haimovitz et al., 2011; Lin-Siegler et al., 2016; Petscher et al., 2017; Yeager, et al., 2016). Likewise, Park et al. (2016) developed a Teacher Theory of Intelligence scale (or instrument) with questions related to beliefs teachers hold about their students and instructional practices.

Teacher Mindset

Research strongly suggests that teachers play a vital role in student growth (Hattie, 2012). Hattie's (2012) meta-analysis found that teacher-student relationships had a strong effect on student learning, further concluding that teachers' beliefs are one of the most influential factors in student achievement. Teachers who set high standards for their students gave them the means to reach their potential. In the learning environment, every message conveyed to students is one of a growth or fixed mindsets (Claro et al., 2016; Dweck, 2007b; Haimovitz & Dweck, 2017). Dweck (2006) defined teachers with a growth mindset as those that "love to learn." This enthusiasm about learning starts with teachers having a growth mindset about themselves as well as their students. In Dweck's work, those with a fixed mindset believed they had little or no impact on students' intellectual ability and that the capacity for achievement could not be altered, thus creating stereotypes (Dweck, 2006).

Empowering teachers toward a growth mindset supports them in developing better practices in their teaching methods (Seaton, 2018). One study using quantitative and qualitative methods investigated teachers' measures of TOI (Seaton, 2018). This study evaluated the relationship between mindset training and teachers' mindset. The participants from one high school and five primary schools were given a pre- and post-

questionnaire derived from the Dweck's (2006) TOI scale. Findings from this study included a statistically significant increase in participants TOI growth mindset scores after training (Seaton, 2018).

Additional findings indicated that teachers who implemented skills learned from the mindset training reported having a positive change in their perception of mindset practices (Seaton, 2018). A qualitative analysis was examined from journal entries and debriefing reflections. Participants reported gaining knowledge around mindsets. The debriefing reflection further showed an awareness around their own practices, including language used with students, strategies and communication with students and colleagues, and willingness to share resources. Participants reported increased awareness of their own mindset and reflection practices (Seaton, 2018).

Teachers' beliefs and mindset have been shown to be predictive of student growth. Jones (2016) found that teacher mindset was more predictive of student growth than teaching practices (Jones, 2016) in learning mathematics. Park et al. (2016) found that teaching practices mattered as well as their mindset. In one study of 1st and 2nd grade teachers, using self-report measures, participants reported higher levels of mastery in instructional practices (growth mindset) over performance-oriented practices (fixed mindset), indicating a focus on student effort over student ability (Park et al., 2016).

Mindset continues to play an important role in the classroom (Jones, 2016; Seaton, 2018). In an examination of teachers' theory of intelligence and instructional practices, Park et al. (2016) found that teachers with an entity theory (fixed mindset) orientation were more likely to endorse students' low ability for lack of success. Teachers with higher fixed mindset scores had higher performance - oriented instructional

practices (a focus on grades over effort). Those with higher growth mindset scores had higher mastery-oriented instructional practices, focused on effort rather than performance (Park et al., 2016).

Several studies have found teacher growth mindset correlates with students' mindset and achievement (Dweck, 2006; Jones, 2016; Park et al., 2016). Teachers who reported mastery-oriented practices focused more on student learning, noting a positive relationship between the teachers' practice behaviors and student improvement (Dweck, 2006; Park et al., 2016). Jones (2016) determined that teachers' beliefs and practices matter and have an influence on student growth. Park et al. (2016) demonstrated a positive relationship between teacher instructional practices, student achievement, and students' mindset. Findings also indicated that teachers' performance instructional practices (Park et al., 2016) were negatively related to students end of year math scores. The study concluded that teachers' performance - oriented instructional practices were predictive of a fixed mindset among students. Even though a relationship was found between instructional practices and achievement, teachers with mastery - oriented (growth) practices did not predict their students would have a growth mindset (Park et al., 2016). Lastly, Park et al. (2016) tested whether teachers' theory of intelligence was related to content knowledge in math and found content knowledge was not correlated with mastery or performance instructional practices.

Teachers' expectations of students' abilities can impact expectations in the classroom. For instance, when teachers were given false information about their students, their beliefs about the students' abilities were influenced, negatively affecting student achievement (Rosenthal, 1964, 1966). Rosenthal and Jacobson (1968) found when

teachers believed their students would achieve, students indeed improved. Therefore, it is important to examine the expectations teachers have for their students in relation to the standards they are expected to teach. One way to accomplish this is to examine the text teachers are using for instructional purposes in order to meet the demands of text complexity.

Text Complexity and Reading Achievement

The Common Core State Standards CCSS provide a measurement for text complexity in three parts: quantitative, qualitative, and reader and task considerations (NGACBP & CCSSO, 2012). Guidance on quantitative and qualitative measures of complexity was developed in order to attain complexity throughout grade bands to ensure college and career readiness. The goal is for students to read and understand text by the end of the grade band Lexile in grades 3, 5, 8, 10, and 12 in order to be prepared for complex texts in college and career (Williamson et al., 2013).

Hiebert and Mesmer (2013) cautioned educators about the lack of focus on text complexity and the gap in text complexity from K-12 to college and career. Contrary to Hayes (1996) who asserted that complexity of text has declined across all grade levels, Hiebert & Mesmer (2013) showed it was the middle- and high-school texts that have decreased in complexity (Hiebert & Sluys, 2014).

Using Lexile measures, Williamson (2008) found there were gaps in texts being used in high school and texts needed for college or career to include military and personal use text. This study showed significant differences between high-school texts and those used at the college level. College-level texts consistently used materials that had a 260L (Lexile) difference finding these gaps in text statistically significant (Williamson, 2008).

In another study, Mesmer and Hiebert (2015) examined text for elementary grades and its effect on comprehension. When studying 3rd grade reading outcomes and text complexity, Mesmer and Hiebert (2015) found that comprehension was lower for students as the text became more difficult. Examining Lexile's at the 400-800 level, 3rd-grade students read passages at the 400L level but maintained their comprehension even when the passages were longer. Moving up to 600L impacted students' comprehension but not significantly. However, when students read passages at the 800L, their comprehension decreased significantly and was even lower with longer passages. Students at lower reading proficiency were impacted the most. As the text got more difficult, their comprehension decreased even more. Mesmer and Hiebert (2015) showed there were issues in the CCSS demands for students regarding reading ability and understanding at the 2nd-3rd grade band of 450L-820L, which indicated at the end of 3rd grade, students should have been able to read and comprehend text at the 820L (CCSSO, 2012).

Text Complexity and Teacher Choices

Papola-Ellis (2014) explored elementary literacy instruction and how teachers interpreted text complexity. Observations, field notes, and debriefing interviews with teachers in kindergarten and sixth grade were used to assess teachers' understanding of text complexity and its implications in the classroom setting. Papola-Ellis (2014) found that during interviews teachers reported their understanding of complex text to mean grade level text. However, teachers did not report using Lexile levels or the qualitative features that make text complex. Instead of a gradual build up the "staircase of complexity," recommended by CCSS (2010), the study found that teachers jumped from

student individual instructional level text to grade level text with no supports (Papola-Ellis, 2014). This was problematic for those students reading more than one grade level below, which caused greater barriers for student success (Hiebert, 2013; Hiebert & Sluys, 2014; Papola-Ellis, 2014).

A teacher's understanding of students' knowledge and skills will improve their decision-making capacity related to choosing text that is right for the student while also understanding the demand for college and career readiness using complex texts (Fisher et al., 2016). Hiebert and Mesmer (2013) has suggested that teachers must have an in-depth understanding of the characteristics of the text, both quantitative and qualitative, that potentially hinder comprehension when matching students with text (Halladay, 2012; Hiebert, 2013; Hiebert & Mesmer, 2013). Their understanding of the purpose for text complexity and the results of exposing students to rich text may assist them in choosing more complex text for instructional purposes.

Fitzgerald et al. (2015) examined teacher perception of text characteristics to determine complexity. Participants evaluated a paired text to determine which characteristics are utilized when making a judgement about text complexity. Teachers most often used word decodability, high frequency words, and illustration characteristics to determine text complexity. Teachers ranked word decodability as the most important characteristic. Few teachers reported choosing text based on the qualitative features of text complexity (Fitzgerald et al., 2015).

Fitzgerald et al. (2015) also found an impact on instructional practices. Most teachers reported using leveled and decodable readers over 60% of the time in instruction. Over half of the teachers reported utilizing read aloud only 20% of their

instructional time. Sixty percent of teachers had independent reading as a classroom practice less than 40% of the instructional time. In the current study, we therefore include survey items related to teacher knowledge of quantitative and qualitative text features, and items examining instructional practices around complex text.

Teacher Knowledge

Recently, researchers have moved towards examining teacher literacy knowledge and its relationship to student reading achievement. Multiple studies have shown that teacher knowledge is related to student literacy outcomes. For example, McCutchen, Abbott, et al. (2002) assessed teacher knowledge of phonological awareness and word reading skills and conducted training to deepen teacher's knowledge of the language structure, phonology, and orthography. Using a sample from 40 schools with 44 kindergarten and first grade teachers, researchers measured teacher knowledge with Moats' (1994) Informal Survey of Linguistic Knowledge as well as beliefs about teaching reading. Classroom observations were used to analyze teacher practices. After participation in professional development, teachers in the experimental group improved in knowledge of phonology and orthography. This study also showed a change in teacher practices in explicit teaching of phonemic awareness in kindergarten and explicit teaching of comprehension in first grade. Teachers' implementation of phonological activities was significantly related to students' growth in phonological awareness in kindergarten. Teachers' practices in letter-sound relationships with kindergarten students were significantly related to students' growth in letter production with the experimental group making gains of 50% more than the control group (McCutchen, Abbott, et al., 2002).

One study examining the relationship between teacher knowledge and early reading achievement, Carlisle et al. (2011) measured teachers' knowledge of reading, their decision-making practices, and analysis of students' ability in reading and writing in first through third grade classrooms ($n = 1,001$). The researchers examined the effect of teacher's knowledge of reading on students' reading achievement. The teacher knowledge measure assessed linguistic knowledge, word level knowledge, and reading comprehension (Carlisle et al., 2011). Among first grade teachers, knowledge was positively related to students' comprehension reading achievement.

In another study considering teacher knowledge, McCutchen, Harry, et al. (2002) assessed knowledge of children's literature, their linguistic knowledge, beliefs about reading, and classroom practices among educators. Knowledge of literature titles and matching to grade levels were assessed. Classroom observations were conducted to determine classroom practices. Teachers showed knowledge of children's literature titles and their appropriateness for grades 1 and 2. Although there was no relationship between their beliefs and knowledge of literature titles or their classroom practices across the grades, there was a significant correlation between linguistic knowledge and classroom practices in explicit teaching of phonemic awareness among kindergarten teachers (McCutchen, Harry et al., 2002).

A similar study examined teacher knowledge and classroom practices. Piasta et al. (2009) examined the relationship among teacher knowledge, classroom practices, and student outcomes. This study measured teacher knowledge using the Teacher Knowledge Assessment developed by the researchers assessing phonology, orthography, and morphology along with literacy and acquisition and instruction. Classroom observations

were conducted in fall, winter, and spring of the academic year. Teacher knowledge assessment scores did not predict student scores in word identification (Piasta et al., 2009). However, there was an interaction between teacher knowledge, amount of instructional time spent in decoding, and student word identification scores. Teachers with higher knowledge at the 50th percentile or above provided more instruction in decoding and had higher student word identification scores when measured in the spring. However, teachers at the 25th percentile or lower in knowledge who spent the same amount or more time in decoding instruction had lower student scores on word identification. The observations of these classrooms showed teachers with lower knowledge provided inaccurate instruction although they spent the same or more time on explicit instruction as other teachers. These studies show that teacher knowledge matters in foundational skills for beginning reading although none examined teacher's knowledge of text complexity.

Teacher Knowledge of Text Complexity

The studies examining the impact of teacher knowledge on student reading achievement outcomes have shown mixed results. Some studies found a clear association between teacher knowledge and student reading achievement, whereas others have not. Although a straightforward answer has not been found, it is understood that teacher literacy knowledge is a prerequisite for use of effective classroom practices (Moats, 1999; 2004). Very few studies, however, have considered the relationship between teacher knowledge about text complexity and student literacy outcomes.

One notable exception to the majority of findings related to teacher knowledge and student achievement is a study by Fitzgerald et al. (2015). In this study, the

researchers used a paired text task to determine which characteristics teachers utilized when making a judgement about text complexity. The text used in this task were from 350 passages for students in kindergarten through second grade along with 18 texts from the CCSS exemplar list. Excerpts were selected from a wide variety of commonly used text in early grades which consisted of decodable readers, whole word books, trade books, leveled books, text used in assessments, and picture books with labels. The task required that teachers examine two text excerpts side by side and determine which one was more complex and consider which characteristics they used to make the determination of complexity. There was a .79 correlation between determination of text complexity by teachers and what the researchers designated as complex text. When researchers designated a text as easy, teachers also designated it as less complex (Fitzgerald et al., 2015).

After completing the task, teachers took the online questionnaire divided into three sections: items related to their context of reading instruction, items related to what text characteristics teachers thought were important for complexity, and items related to their own confidence in determining complex text and matching students to text. Teachers rated their perception of text characteristics for determining complexity and the extent of use on a 6-point Likert scale, 1 meaning 'never' to 6 meaning 'always'. The text characteristics teachers most often used were word decodability (5.3) with the least variability, high frequency words (5.2), and pictures/illustrations (5.0) to determine text complexity. Text characteristics around meaningful words, sentence length, and text per page ranked 4.9. Font size was determined to be used least often (4.3). Characteristics reported by teachers for other (4.4) consisted of background knowledge, predictable

patterns, genre, sentence structure, topic and interest, sentence structure/syntax, author, quotation marks, and formatting. Teachers were shown to have differing views of what makes a text complex, and they tend to analyze text at the sentence level usually only taking into consideration the factors that make up quantitative features. Fewer teachers considered qualitative features. This study only addressed teachers' views of complex text and did not provide information about their knowledge of analyzing text for qualitative features to determine text complexity (Fitzgerald et al., 2015).

Purpose of the Current Research

Research has shown that teacher knowledge of reading makes a difference in student growth in reading (Podhajski et al., 2009). Although there are studies examining teachers' linguistic knowledge, there are few studies about teachers' knowledge of text complexity, or the possible role teacher mindset plays in text complexity choices. The current study is unique in that it is the first to examine whether teacher mindset is related to teacher instructional decisions regarding text complexity and whether those choices are related to teacher knowledge of complex text.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine the relationship among different aspects of teacher mindset, teacher knowledge of text complexity, and teacher instructional practices including the selection of complex texts. This chapter explains the methodology for the current study, the research design, participant selection, measures used, procedures, and data analysis.

1. What is the relationship between teacher mindset (teacher growth mindset and teacher literacy mindset) and instructional practices (i.e., Lexile text choice, number of planned strategies)?

2. What is the relationship between text complexity knowledge and instructional practices (i.e., Lexile text choice, number of planned strategies)?

3. What is the relationship between teacher text complexity knowledge and the number of hours of text complexity professional development?

4. What factors do teachers consider when determining text complexity?

5. What are teacher perceptions about text complexity?

Research Design

This mixed methods study used pre-existing survey and qualitative data to examine the relationship among teacher mindset, teacher text complexity knowledge, and text instructional decisions. The surveys used were Teacher Growth Mindset, Teacher Literacy Mindset, and Teacher Text Complexity Knowledge along with teacher lesson plans over an 8-week period.

Participants

Data from 55 teachers in grades 3-5 was used in this study. The study took place in a Tennessee school district across 13 elementary schools. Three schools served kindergarten to 8th grade and the remaining 10 schools served kindergarten to fifth grade. Six of the elementary schools were school-wide Title I. Out of the 13 schools, only teachers of grades third, fourth, and fifth were included. All the 13 schools teach English Language Arts (ELA) in third through fifth grades, and all participated in a district survey and electronic plan book provided by the district. All schools utilized Planbook.com for planning lessons. The district has 24.47% students qualified for free and reduced lunch.

Procedures

Participants took three surveys as part of their district's data collection initiative to provide information about teacher mindset and text complexity and to help inform decisions around professional development, curriculum, instructional practices, and strategies.

Next, data from three surveys collected from the district were considered for inclusion in this study (Teacher Growth Mindset, Teacher Literacy Mindset, and Teacher Text Complexity Knowledge). One survey based on (Dweck, 2006) teacher growth mindset survey was determined adequate for this study based on previously published reliability and validity information (see measure descriptions below). Two of the surveys were developed by the district (Teacher Literacy Mindset and Teacher Text Complexity Knowledge), however, they had not been validated. Therefore, a panel of professional educators was asked to review the items on each survey to determine content validity. Three educators made up the panel. They ranged from 19-30 years of experience in

education, all had experience as administrators. They all held master's degree or higher in education. They all had experience providing professional development in Common Core State Standards, text complexity, and literacy.

The panel was asked to do three tasks, 1) examine each item in the district created surveys (Teacher Literacy Mindset and Teacher Text Complexity Knowledge) to determine if they were relevant for this study and if they were understandable to the teachers, 2) review teacher lesson plans and note text titles in each plan, and 3) find the Lexile levels for each text. The professional educator panel had training for reviewing the surveys and analyzing lesson plans over two days for approximately 3 hours.

The panel was asked to evaluate each item in the surveys regarding two criteria. First, they evaluated the item to determine if it represented the content and was relevant to the current study. Second, they determined if each item was understandable to the educators who took the survey (see Appendix A). The items are listed in the measure descriptions below.

Lesson plans over an 8-week period were reviewed for each teacher to determine which text titles and Lexile levels teachers used (pertaining to research questions 1 and 2). The professional educator panel assisted in in reviewing lesson plans noting the text and Lexile level.

After the qualitative coding was completed by the researcher for categories and codes for research questions 4 and 5, the panel was asked to review of the qualitative coding.

Internal Review Board (IRB) at Middle Tennessee State University approval was obtained along with district approval before data analysis began (Appendix B).

Measures

Teacher Mindset and Text Complexity Knowledge Surveys

  Teacher Growth Mindset (TGM). The survey items were adapted from Dweck's (2006) online mindset survey. The survey consisted of six items on a 6-point Likert scale, 1 strongly agree to 6 strongly disagree. The items are used to determine a growth or fixed mindset (e.g., *No matter who you are, you can significantly change your intelligence level).* Items 40, 41, and 44 were reverse coded, so that the scores represented the same direction for all items. This measure has a reported reliability of α = .76 (Petscher et al., 2017).

  Teacher Literacy Mindset Survey (TLMS). The survey items were developed by the district. Five of the nine items were determined relevant for this study and understandable to teachers based on the panel review. The items used a 6-point Likert scale to determine fixed or growth teacher literacy mindset, i.e., *Reading ability is difficult to change* (see Appendix C)*.* Internal consistency for the items was α = .62. This is lower than the generally accepted value of α = .7 or α = .8 (Cortina, 1993).

  Teacher Text Complexity Knowledge Survey (TTCKS). This measure was developed to determine teachers' knowledge of text complexity using quantitative and qualitative features to measure teacher' knowledge of text complexity, perception of text complexity, their knowledge of qualitative complexity features, and their instructional practices with complex text. The survey has 9 items, and all were retained for the analysis as part of this study (see Appendix A). All items were multiple choice. Four items assessed teachers general text complexity knowledge such as, "Evaluating text complexity will give you _____ complexity measures," and "What three factors should

be considered when choosing text?" These items assessed teachers' general knowledge of how text is chosen using guidance from Common Core State Standards CCSS three parts: quantitative, qualitative, and reader and task considerations (NGACBP & CCSSO, 2012). Five items were specific around the rubric for qualitative features of text (e.g., *If a literary text has time shifts, this falls under which domain in the qualitative measure's rubric)*. Internal consistency for these items was α = .35. This is lower than the generally accepted value of α = .7 or α = .8 (Cortina, 1993).

To address qualitative research question 4, six items were related to instructional practices of complex text, such as, "How do you choose text for instruction?", "What strategies do you use for reading instruction?" Three open-ended items were used for this study to examine qualitative features, such as, "What characteristics are important to consider in determining if a text is complex?" For research questions 5, two items were used for qualitative examination around the teachers' perceptions, (e.g., I feel equipped in selecting complex text for instructional purposes).

Text Complexity Instructional Decisions

Lesson Plan/Survey Evaluation. The targeted school district regularly evaluates lesson plans as a routine practice. Lesson plans reflecting an 8-week timeframe were coded for the following characteristics: grade, text title, and Lexile. Lexile of text selections were gathered and examined for quantitative analysis from the teacher lesson plans. The Lexile of each text the teacher assigned or used with students was also noted. Complexity of each text was determined through Lexile Framework for quantitative measures based on vocabulary, sentence length, and word count (MetaMetrics, 2019). Lexile is shown as a number that ranges from 200L to 1700L (Nelson et al., 2012;

MetaMetrics, 2019). Each plan was reviewed, the titles noted, and the Lexile was determined by referring to the "find a book" section of the Lexile Framework website (Lexile, 2019). For titles not found at the Lexile Framework website, Lexile levels were determined by the publisher (i.e., Common Lit, Ready Reading).

Teacher instructional strategies used during reading instruction were captured on the district Teacher Text Complexity Knowledge assessment via teacher self-report. The number of instructional strategies reported included read aloud, small group, close reading, shared/partner reading, whole group or choral reading, and independent reading. The number of strategies were counted and serve as a proxy for good instructional practices related to text complexity. We hypothesized that more reading strategies used by teachers would be associated with higher levels of text complexity knowledge.

Data Analysis

First, correlations were conducted using Pearson's correlation for continuous variables to answer research questions 1-3. To answer research question 1, the correlations between mindset and instructional practices (i.e., Lexile text choice, number of planned strategies) were examined. Next, for research question 2, correlations were examined between text complexity knowledge and instructional practices (i.e., Lexile text choice, number of planned strategies). For research question 3, a correlation was examined to consider the relationship between text complexity knowledge and professional development hours.

To answer research question 4, in order to understand what factors teachers consider for choosing complex text, the following open-ended items were examined: "*What method/program do you use to determine complexity of a text?", "What*

characteristics are important to consider in determining if a text is complex?", and

"*When selecting a complex text for instruction teachers should consider _____."* This

was explored by using Grounded Theory (Glaser & Strauss, 1967). Descriptions and

narrative exemplars are recorded in results section. This is explained in detail in the

results section.

Descriptive analysis was used to answer research question 5. The following

questions were part of the qualitative analysis to examine teachers' perceptions about text

complexity, "I feel equipped in selecting complex text for instructional purposes", "I feel

equipped to analyze text for qualitative features."

CHAPTER IV

RESULTS

This study investigated the relationship between teacher mindset and teacher knowledge of text complexity and the relationships among the selection of complex texts, teacher mindset, teacher knowledge, and professional development hours. The descriptive data noted teachers' demographics across third through fifth grade teachers. Results should be interpreted with caution, due to the small sample size.

The psychometric properties (e.g., construct validity, reliability) of the Teacher Text Complexity Knowledge Survey (TTCKS) and the Teacher Literacy Mindset Survey (TLMS) were then analyzed for validity and reliability. Participants' responses on the survey and lesson plans were analyzed to address research questions: 1) What is the relationship between teacher mindset (teacher growth mindset and teacher literacy mindset) and instructional practices (i.e., Lexile text choice, number of planned strategies)?, 2) What is the relationship between text complexity knowledge and instructional practices (i.e., Lexile text choice, number of planned strategies)?, and 3)What is the relationship between teacher text complexity knowledge and the number of hours of text complexity professional development?

Qualitative analysis was used to answer research questions 4) What factors do teachers consider when determining text complexity? and 5) What are teacher perceptions about text complexity?

Participant Demographics

The descriptive data for teachers is presented in Table 1. This data was gathered from self-report on the survey. All participants were female with 29% holding a master's

degree while only 5.5% held a reading specialist degree. The majority ranged from 20-40 years of age. Forty percent are considered new to the field with 0-5 years' experience while 21.8% have taught from 6-10 years. Most participants taught 3rd grade in a self-contained classroom. The majority of teachers (67.9%) reported having between 4-10 hours of professional development in text complexity.

Table 1

Teacher Demographics

Characteristics	*n*	%
Gender		
Female	55	100
Male	0	0
Age		
20-30	20	36.4
31-40	19	34.6
41-50	7	12.7
51-60	7	12.7
60 and over	2	3.6
Highest degree held		
Bachelor's degree	36	65.5
Master's degree	16	29.0
Reading Specialist	3	5.5
Years teaching		
0-5 years	22	40.0
6-10 years	12	21.8
11-15 years	9	16.4
16-20 years	3	5.4
21 or more years	9	16.4
Grade(s) currently teaching		
3rd	41	74.5
4th	4	7.3
5th	10	18.2
Classroom structure		
Departmentalized[1]	6	10.9
Semi-Departmentalized[2]	20	36.4
Self-Contained[3]	29	52.7
Text complexity professional development		
0-3 hours	4	7.1
4-5 hours	22	39.3
6-10 hours	16	28.6
over 10 hours	14	25.0

[1] Departmentalized: each teacher teaches only one academic subject, (i.e. ELA)
[2] Semi-Departmentalized: each teacher teaches two academic subjects (i.e. ELA and Social Studies).
[3] Self-Contained: one teacher teaches all academic subjects to the same group of students.

Quantitative Data Results

Survey Reliability and Validity

Prior to answering the first research question, we examined reliability using this sample for the district created surveys (i.e., Teacher Literacy Mindset, Text Complexity Knowledge). We conducted Cronbach's alpha. This analysis determined how well the items in the survey measure the same construct (i.e., text complexity knowledge, literacy mindset). In the analysis, Cronbach's alpha for the literacy mindset reached reliability of $\alpha = .62$, text complexity knowledge survey reached reliability of $\alpha = .35$. These are lower than the generally accepted value of $\alpha = .7$ or $\alpha = .8$. The lower values can be expected due to the diversity of the construct given the measure had few items with a small sample size (Cortina, 1993). Teacher Growth Mindset reliability was high in this sample ($\alpha = .91$). See Table 2.

Table 2

Descriptive statistics of Raw Scores for Teacher Text Complexity Knowledge, Teacher Literacy Mindset, and Teacher Growth Mindset, (N = 55)

Measure	*M*	*SD*	Range	Total Items	α
Teacher Growth Mindset	*14.09*	*2.08*	6-30	6	.91
Teacher Literacy Mindset	*24.71*	*3.45*	16-30	5	.62
Teacher TC Knowledge	*6.44*	*1.62*	3-9	9	.35
TC PD Hours	*2.75*	*0.91*	1-4		

Note: PD = professional development; TC = text complexity
PD hours were converted: 0-3=1, 4-5=2, 6-10=3, over 10=4

Next the construct validity of the Literacy Mindset Survey was considered by examining the relationship between the Literacy Mindset Survey and Dweck's (2006) established measure of Teacher Growth Mindset. These measures were moderately

correlated at $r = -.45$, $p = .001$, demonstrating negative relationship. The negative

direction is a result of the two measures being on a reverse scale . They both used a 6-

point Likert scale. However, on Dweck's (2006) mindset scale the higher score represents

a fixed mindset while on the Teacher Literacy Mindset scale a higher score represents a

growth mindset. See Table 3.

Table 3

Correlations for Study Variables

Variables	1	2	3	4	5	6
1. Teacher Growth Mindset	-					
2. Teacher Literacy Mindset	-.45**	-				
3. Text Complexity Knowledge Score	.05	.17	-			
4. PD Hours	.08	-.11	-.13	-		
5. Lexile Level	.04	-.02	.09	-.08	-	
6. Reading Strategies Reported	.24	-.17	.02	-.14	-.04	-

** $p < .01$

The first research question examined the relationship between teacher mindset

(growth mindset and literacy mindset) and instructional practices (Lexile level, reading

strategies). Lesson plans were analyzed across the 55 teachers over 8 weeks for a total of

440 lesson plans. Teachers used 709 text which ranged from 3-54 total text across all

lesson plans. Mean, range, and standard deviations of Lexile's and number of reading

strategies teachers used is reported in Table 4.

Table 4

Descriptive statistics of Raw Scores for Text Lexile Level and Number of Strategies Used (N = 55)

Measure	*M*	*SD*	Range
Lexile Level	765.53	87.34	601-1010
Reading Strategies	5.91	1.09	2-7

There was no statistically significant relationship between teacher growth mindset and Lexile level choice, $r = .04$, $p = .79$. Likewise, there was no statistically significant relationship between teacher literacy mindset and Lexile level choice, $r = -.02$, $p = .87$. There was also no statistically significant relationship between teacher growth mindset and number of reading strategies used, $r = .24$, $p = .07$ and there was no statistically significant relationship between teacher literacy mindset and number of reading strategies used, $r = -.17$, $p = .20$, and (see Table 3).

The second research question examined the relationship between text complexity knowledge and instructional practices. All teachers took the Text Complexity Knowledge survey and obtained a range of 61% - 91% with mean score of 70.8%, demonstrating the teachers had some knowledge of text complexity. There was no statistically significant relationship between text complexity knowledge and Lexile level, $r = .09$, $p = .52$. Likewise, there no statistically significant relationship between text complexity knowledge and the number of reading strategies teachers reported using, $r = .02$, $p = .87$ (see Table 3).

The third research question examined the relationship between text complexity knowledge and the number of PD hours. The correlation between text complexity knowledge and the number of PD hours was not statistically significant, $r = -.13$, $p = .36$.

Qualitative Data Results

The fourth research question evaluated what factors teachers consider for choosing complex text by examining three open ended questions and one multiple select from the district data and: 1) What method/program do you use to determine complexity of a text?, 2) What characteristics are important to consider in determining if a text is complex?, 3) When selecting complex text for instruction teachers should consider_____. Last, the multiple select question, 4) How do you choose text for instruction?, was examined to understand how teachers choose complex text.

The teachers' narrative responses to the open-ended questions were analyzed for trends and patterns pertaining to characteristics and factors teachers considered in choosing complex text. Responses were analyzed and coded using Grounded Theory (Glaser & Strass, 1967). All teacher responses were coded based on significant and repeating terminology. After conducting the initial open coding process, the codes were collapsed into thematic families based on the frequency of repetition of terms used in the narrative responses. The establishment of these families, or categories, provided the framework for the qualitative analysis.

Open Ended Questions. The following inquiry provided an authentic examination of factors teachers considered when determining text complexity. Qualitative analyses were utilized to capture narrative responses to the open-ended questions.

Responses were analyzed using Grounded Theory (Glaser & Strauss, 1967). There are a wide range of characteristics that determine the level of text complexity. After the opening coding process was completed, four main categories and per the

responses by teachers. The four main categories were quantitative characteristics, qualitative characteristics, general or other characteristics, and reader or task characteristics. The 12 final codes were text length, words in text, Lexile, grade level, structure, knowledge demands, language features, purpose, meaning, quantitative and qualitative, reader, and task (see Table 5).

Table 5

Summary of Teacher Self-Report of Complex Text Characteristics

Category	Category Description	Frequency, *n* (%)
Quantitative Characteristics		
Text Length	The length of the sentence or text.	8, (1.72)
Words in Text	Word frequency and word count	4, (.75)
Lexile	Lexile level according to Lexile framework.	8, (2.08)
Grade Level	If the text is above grade level	2, (.27)
Qualitative Characteristics		
Structure	Text structure, sentence structure, language structure	38, (9.87)
Knowledge Demands	Theme, student background knowledge, point of view	30, (6.13)
Language Feature	Vocabulary, figurative language	24, (6.8)
Purpose	Purpose for using the text, purpose of the text	8, (1.38)
Meaning	Meaning, content of the text	8, (1.37)
General/Other Characteristics		
Quantitative and Qualitative	Used the terms quantitative and/or qualitative	23, (12.68)
Reader or Task Characteristics		
Reader	Level of reader, reader, ability of reader, background knowledge of reader	9, (1.48)
Task	Task asked to do from the text, task, or questions	8 (1.10)

The final categories reflected the established CCSS three-part model of choosing

complex text. The CCSS model was similar to the coding scheme established as part of

this study. This consistency between the coding scheme and CCSS categories was found across the data, noting that teachers had a working knowledge of the CCSS three-part model and qualitative analysis rubric. The three-part model considers the following factors: quantitative dimensions, qualitative dimensions, and reader and task considerations, which align with the final categories in this analysis (CCSS, 2010a). The data further revealed teachers utilized the terminology from the qualitative features, i.e., text structure and language features (CCSS, 2010a). One theme across the data showed that the qualitative characteristics were similar to those from the suggested rubric associated with the qualitative analysis of text used in the three-part model (CCSS, 2010a). Teachers placed a heavy emphasis on structure of the text, knowledge, and language features. The reader and task-related terminology were not prevalent characteristics listed by teachers.

The second open-ended question reflected considerations regarding the selection of complex text for instruction. The teachers' responses aligned with the prior answers to the narrative question regarding characteristics that make a text complex. Table 6 summarizes their results.

Table 6

Summary of Teacher Self-Report of Complex Text Considerations

Considerations	Example Narrative Quote	Frequency, *n* (%)
Text	"You should consider the text structure."	20, (6.12)
Knowledge	"What background knowledge is required?"	20, (6.12)
Qualitative Measures	"It has been analyzed for qualitative appropriateness."	14, (4.28)
Level	"Lexile level of the text"	12, (3.67)
Reader	"instructional level of the reader"	12, (3.67)
Quantitative Measures	"When choosing a complex text you must look at both the qualitative and quantitative elements of the text and its purpose."	12, (3.67)
Task	"The overall task that the reader is having to complete based on the text is important."	11, (3.36)
Vocabulary	"the complexity of the vocabulary"	10, (3.06)
Purpose	"What is the purpose for using the text"	9, (2.75)
Standards	"What academic standards are being taught"	6, (1.83)
Language	"It is important to consider language, structure, and requirement of background knowledge, and theme when determining the complexity of a text."	5, (1.53)

An important theme that rose from teachers' considerations of complex text is the

text itself in relation to knowledge needed for reading the text. This is similar to the

characteristics teachers listed as important. They report using different levels of text complexity along with various characteristics and considerations.

When teachers were asked what they considered in determining complex text, they reported using qualitative analysis, i.e., looking at text structure, language features, but this does not reveal if they understand how to analyze a text using the qualitative features. The quantitative measures were less likely to be considered when choosing complex text. Unlike the characteristics they listed, language features were less likely to be considered for complex text.

The third open-ended question referred to the method/program used to determine text complexity. The majority of teachers reported using both the quantitative and qualitative measures recommended from appendix A (CCSS, 2010). The answers are summarized in Table 7.

Table 7

Methods Teachers Report Using to Determine Text Complexity

Method used	Frequency, n (%)
Three-part model CCSS	2 (3.6)
Quantitative & Qualitative	21 (38.1)
Quantitative (Lexile)	14 (25.5)
Qualitative (rubric)	8 (14.5)
Other (resources from district or state)	6 (10.9)
Results from test (STAR, TE21, etc.)	2 (3.6)
Read the text	1 (1.9)
No method	1 (1.9)

The majority of teachers (81%) reported using at least one of the recommendations in research on text complexity, i.e., quantitative, qualitative, three-part model (Fisher et al., 2016). Twenty five percent use only Lexile level as their method to choose complex text. However, few reported they actually read the text (1.9 %).

The last district question was multiple select. Teachers were asked to select how they chose text for instructional purposes. Similar to the method used to determine complex text, the method by which texts are chosen was examined. The following graph (Figure 1) shows teachers' responses of how they choose complex text for instruction. This helps better understand not only the method used but also how they choose the complex text for instruction.

Figure 1

How Text is Chosen for Instructional Purposes
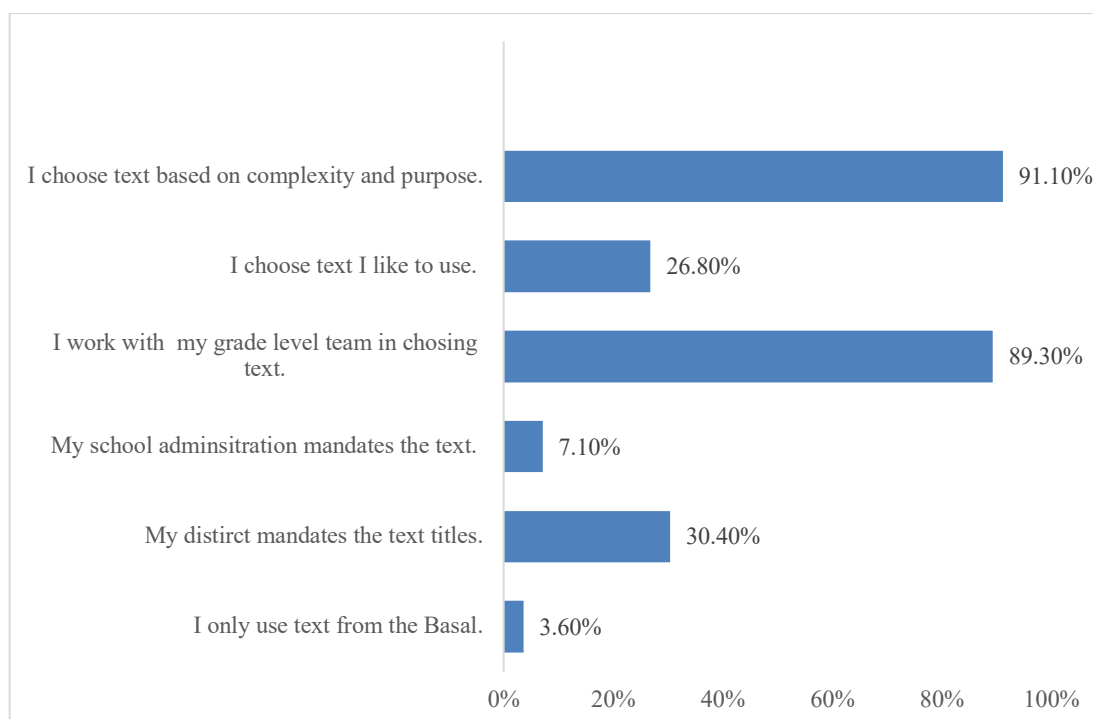
Ninety-one percent of teachers stated that they chose text based on complexity and purpose. Eighty-nine percent of teachers reported they work with their grade level team in choosing the text. Of note, 37.5% of teachers report that text selection is not within their control and mandated by their administration or district. The study sample was within the same district; however, the response related to the district mandating the text was contradictory to other responses by teachers within the same district.

Research question 5 examined teachers' perception and to what degree involving complex text. One important aspect was the teachers' perception of choosing complex text. Teacher perception in how they feel when choosing complex text was reported in table 8.

Table 8

Summary of Teacher Self-Report Perception

Perception Question	*n* %
I feel equipped in selecting appropriate complex text for instructional purposes.	
Yes	31 (56.30)
Somewhat	21 (38.2)
No	3 (5.5)
I feel equipped to analyze text for qualitative features.	
Yes	19 (34.5)
Somewhat	35 (63.6)
No	1 (1.8)

Though the majority of teachers reported feeling equipped in selecting complex text (56.3%), only 34.5% felt equipped to analyze qualitative features of text. This data is similar to the method teachers use when choosing complex text. Only 23% reported using qualitative features for analyzing text. If they do not feel equipped, they may tend to

avoid analyzing text for qualitative features. When asked about their method of choosing text for instruction only 2% reported reading the text. There is a requirement to read the text to evaluate it for qualitative features. If teachers are not reading the text, they will not be able to look at the qualitative features of the text for analysis.

CHAPTER V

DISCUSSION

This study focused on better understanding the relationships among teachers' mindset, teachers' knowledge of text complexity, the amount of text complexity professional development hours teachers attended, teachers self-report of Lexile levels used in classroom instruction, and their reported reading strategies. This chapter will summarize the results, limitations, and provide recommendations for future research in the area of teacher text complexity knowledge and classroom practices.

The design of this study was crafted from a review of previous literature involving teacher mindset, teacher knowledge of text complexity and instructional practices in the classroom (Dweck, 2006, Fitzgerald et al., 2015; Park et al., 2016; Petscher et al., 2017). The need for college and career readiness and the ability for students to read complex text inspired the qualitative inquiry to better understand teachers' choices for text selection. This study investigated whether teacher mindset is related to teacher instructional decisions regarding text complexity and whether those choices are related to teacher knowledge of complex text.

Growth Mindset and Teacher Practices

The results of this study revealed that there was positive but weak relationship between teachers' literacy and growth mindset. Additionally, there was weak, negative relationship between teachers' knowledge of text complexity and the number of hours they participated in professional development. There was also weak, negative relationship between the choice of Lexile levels used in the classroom and teachers' knowledge of text complexity. However, none of the correlations were statistically significant.

Previous research has found that empowering teachers with a growth mindset helps them develop better teaching practices (Seaton, 2018). Likewise, teachers mindset along with their teaching practices mattered when finding a positive relationship between teacher instructional practices and student achievement (Park et al,. 2016). Although studies have found a positive relationship between teachers' practices and student improvement (Dweck, 2006; Park et al., 2016), there was positive but weak relationship between teacher growth mindset and instructional practices (Lexile level, reading strategies). There was a weak but negative relationship in teacher literacy mindset and instructional practices (Lexile level, reading strategies) in this study. Similar to Park et al. (2016), where teachers' mindset was not related to content knowledge in math and math knowledge was not related to instructional practices.

Based on previous studies, it was expected to find a stronger relationship between teacher mindset (growth mindset and literacy mindset) and instructional practices (Lexile level, reading strategies). However, this did not occur and may be due to the small sample size and the low reliability of the Teacher Literacy Mindset Survey, a survey instrument created by the school district.

Text Complexity Knowledge

The relationship between knowledge and practice has been highlighted in numerous studies related to teacher and student outcomes (McCutchen, Abbott, et al., 2002; Carlisle et al., 2011; Fitzgerald et al., 2015). McCutchen, Harry, et al., (2002) showed a positive relationship in kindergarten teachers' linguistic knowledge and classroom practices when teaching phonology. Piasta et al. (2009) found an interaction between teacher knowledge and their instructional practices when it comes to the amount

of time they spent teaching decoding. Teachers with higher knowledge spent more time in decoding practices and their students had higher word identification scores. Previous research noted that teacher knowledge in foundational skills for reading mattered (McCutchen, Harry, et al., 2002; Carlisle et al., 2011).

Fitzgerald et al., (2015) used a text task to assess teachers' knowledge in complex text. The measures used in this study were based on multiple choice questions, and the instrument was developed by the local district (Text Complexity Knowledge Survey). This limited the instrument's reliability and validity.

In this study, teachers demonstrated knowledge of text complexity. However, there was weak but positive relationship between text complexity knowledge and instructional practices (i.e., Lexile, reading strategies) based on findings from the Text Complexity Knowledge Survey. However, McCutchen, Harry et al., (2002), found that 1st and 2nd grade teachers' knowledge of literature was not related to their teaching practices in comprehension.

Lastly, studies have shown that professional development improves or changes teacher knowledge and practices. McCutchen, Abbott, et al. (2002), found that teachers who participated in professional development related to knowledge of phonology and orthography showed a change in their explicit teaching of phonemic awareness in kindergarten and explicit teaching of comprehension in first grade. According to their scores on the text complexity assessment, the teachers in this study demonstrated knowledge of text complexity. When asked to list what characteristics are important and what they consider when choosing complex text, the teachers in this sample were familiar with the terms and characteristics. However, in the current study, there was no

statistically significant relationship between text complexity knowledge and the number of professional development hours. This may be because of the weak reliability of the Text Complexity Knowledge measure and the reported number of professional development hours were not exact numbers, they were reported in uneven ranges.

Teacher Text Complexity Practices

The results from the analysis of lesson plans showed teachers used 709 texts which ranged from 3-54 total texts across all lesson plans. This gives an average of 1.5 text a week used in instruction. Only 8 out of the 55 teachers listed using 20 or more text across the 8 weeks. The research recommends teachers should use a high volume of text in order to build stamina and promote better reading habits for students (Hiebert, 2012; Fisher et al., 2012).

Unlike prior studies where students were only exposed to lower-level text (Fisher et al., 2012), in this study, review of the lesson plans found the Lexile ranged from 600-1010 for third-fifth grade students. The range of Lexile recommended for grade 3-5 is 420L-1010L (CCSS, 2016). In this study, teachers were using higher than expected Lexile texts. This challenges the notion of gaps in text in K-12 to college or career, at least at the elementary level (Williamson, 2008). These findings are similar to Hiebert & Mesmer (2013) that showed there was not a decrease in text at the elementary level.

The factors related to complex text considered by teachers were an important aspect of the qualitative analysis of this study. It is promising that more teachers reported using both quantitative and qualitative analysis for text complexity, given that in past studies teachers only considered quantitative features rather than considering the qualitative features of text (Fitzgerald et al., 2015). For instance, teachers reported more

qualitative features of text, (i.e., language structure, language features, knowledge demands) in this study; whereas in Fitzgerald et al., (2015) teachers considered quantitative features (i.e., sentence length, number of high frequency words). The teachers in this study chose text based on complexity and purpose. Characteristics important to teachers in this study included language features and purpose of the text, unlike Fitzgerald et al. (2015) in which teachers found that decoding features to be more important.

Teacher Perceptions about Text Complexity

Practical implications for this study are clearer in the qualitative analysis than the quantitative analysis. Overall, teachers used the recommended Lexile levels CCSS (2016), and they had a general knowledge of text complexity. However, there was variability of Lexile ranges used by teachers. This shows inconsistency in student opportunity with text between classrooms, schools, and within districts. Teachers reported considering multiple indicators for text complexity. They considered Lexile levels and the qualitative features, unlike in past studies Papola-Ellis, (2014) where teachers did not report using Lexile levels or the qualitative features that make text complex. It may be that teachers are better informed now about text complexity quantitative measures than in 2014 when Papola-Ellis completed their study.

Providing complex text for students requires a level of knowledge and confidence when selecting text for instructional purposes (Hiebert & Martin, 2002; Fitzgerald et al. (2015). Teachers' perception was another important aspect of the qualitative analysis for this study. Based on this analysis, teachers feel confident to select complex text for instruction. However, they are not as confident to analyze text for qualitative features

(i.e., language features, text structure, meaning, knowledge demands), even though their narrative responses leaned more towards the qualitative features of text. Qualitative analysis of complex text differentiates a text more than quantitative features alone (Chall et al., 1996). If teachers are going to select text that enhance student knowledge (Duke, 2004; Hiebert, 2012), they must understand the qualitative features of text (Fisher et al, 2016).

Further connecting mindset with the ability of teachers to select complex text, Dweck (2007a) found that a fixed mindset leads to lack of confidence. While not significant, the study found that teachers were more likely to have a fixed mindset on the growth mindset measures. However, they were more likely to have a growth mindset specific to the literacy mindset measures. This may in part, explain their lack of perceived confidence in analyzing text for qualitative features. This is an area worth additional research.

Limitations

It is important to consider limitations when interpreting the findings of this study and their implications. A primary limitation is the use of existing district data in which the elements of population sampling, objectives related to collecting the data, and the measurement strategies where not in the control of the researcher.

The results of this study should be considered with caution due to the small sample size. The correlation results using the Text Complexity Knowledge survey cannot be accurately interpreted because this measure was not reliable. Additionally, the reliability of the Literacy Mindset survey was weak. These instruments were developed

and used by the district. There were no optional surveys available due to the district's

requirements, nor were there other available instruments to utilize as part of this study.

Although teachers might be using other texts in the classroom, we only examined

texts they recorded in the lesson plans. Some text did not have a Lexile measure due to

being poetry, folktale, an isolated lesson on grammar and text features, or they were

paragraphs from a worksheet and not an entire text.

When understanding teachers' perception on the characteristics they deem

important for complex text, it is important to remember the limitations of this study. The

results represented teachers views from a small sample of elementary teachers in one

school district and consisted mainly of third grade teachers. Although teachers were

primarily assigned to one grade level, narrative answers to the open-ended questions

represented a diverse range of responses. Due to the small sample size and lack of

representative sample, the results of this study cannot be generalized across a larger

population of elementary teachers.

Future Studies

Future studies should include data from teacher logs that identify the text being

used and state the purpose or strategy used (read aloud, shared reading, independent

reading). Lesson plans, along with classroom observations, should be examined for

instructional strategies matched to the text (e.g., interactive read aloud, shared reading,

small group, or independent reading). This will give a more accurate picture of the text

being used for instruction. A next step includes having teachers list specific

characteristics about text as part of the decision-making process for text selection.

Classroom observations will also be helpful in determining time spent in text and if teacher self-report aligns with instruction in the classroom. Fewer teachers considered the reader and the task, which is important when understanding the demands for college and career readiness within complex text (Fisher et al., 2016). Further, it may be worth examining questions and tasks teachers use in adjacent to the text.

When assessing teacher knowledge about text complexity, future studies should combine a task on analyzing text similar to Fitzgerald et al. (2015). This may allow for application of the important characteristics and a more accurate assessment of their knowledge.

The lesson plans reflect information prior to the district adopting a standardized curriculum, or what is now deemed as high-quality curriculum, (TNTP, 2018; Change, 2017). Topics for future study may need to look at the text used in the classroom after the adoption of consistent standardized curriculum.

Given the range of professional development that has taken place when Common Core State Standards were adopted in Tennessee, participants might have knowledge of the recommendations from the CCSS (CCSS, 2010a). It may be worthwhile to further examine the relationship between the number and type of professional development hours and the capacity of teachers to assess text complexity.

While teachers' text complexity knowledge or their mindset had a weak relationship to their choice in text in this study, it would be worthy to further investigate if teacher mindset or knowledge is a predictor of students' reading achievement. Since literacy mindset was not related to how many reading strategies teachers used, the development of a more comprehensive and reliable literacy mindset measure may better

assist teachers and the profession as a whole in addressing reading and literacy in the educational setting.

Conclusion

As we continue to develop reading and the rigor of the "staircase of complexity," recommended by CCSS (2010), it is important to consider the development of a strong foundation of teacher knowledge related to text complexity. This study found that there were several key concepts related to the ability of teachers to determine text complexity. Overall, teachers had a general knowledge of text complexity. Teachers were able to conceptualize the qualitative features of text complexity. Although there were not any significant relationships found the descriptive qualitative findings about teachers' practices and perceptions add to our understanding of state text of teachers' text complexity knowledge and instructional decisions.

Professional development that provides focused training on analyzing text and teachers' literacy mindset might increase feeling more adequate in using qualitative features analysis for complex text. There is clearly a need for a stronger measure of their knowledge around text complexity and literacy mindset. The study leaves us with more questions than answers related to reading achievement, and the teacher and student outcomes in reading. Proficiency rates in reading are not improving. We are left with a key question: What factors will move the needle and increase proficiency in student reading abilities? How do we help students become successful in the current academic environment?

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APPENDICES

APPENDIX A

Educator Panel Item Results

Yes=1; No=0

Teacher Literacy Mindset	Does this item fit	Is this item understandable	Comment
Reading ability is difficult to change.	1	1	
If someone struggles with reading, they will likely struggle no matter what they do.	1	1	
Students can read text above their Lexile level.	0	0	While some districts have completed training on Lexile levels, every teacher might not understand Lexile, how it works, and what it is.
I feel that all of my students can become better readers.	1	1	
I allow students to choose text above their Lexile level for independent reading.	0	0	While some districts have completed training on Lexile levels, every teacher might not understand Lexile, how it works, and what it is.
Students in my class must read at their Lexile level for independent reading.	0	0	While some districts have completed training on Lexile levels, every teacher might not understand Lexile, how it works, and what it is.
Even if students get frustrated reading difficult text, they can still learn from the text.	1	1	
Frustration while reading is detrimental to student progress.	0	0	"Frustration" has some negative connotations in regards to reading instruction.
Even though students can make substantial improvements in math; their ability in reading will not change.	1	1	

Teacher Text Complexity Knowledge	Does this item fit	Is this item understandable	Comment
Evaluating Lexile levels of a text will give＿＿complexity measures. 　○ *Quantitative* 　○ Reader and Task 　○ Instructional Level 　○ Qualitative	1	1	
Quantitative text complexity is commonly measured by＿＿＿. *Sentence length, word count, word frequency* 　○ Language structure, text structure, text features 　○ Word count, number of long words, amount of background knowledge	1	1	
What 3 factors should be considered when choosing text? 　○ Professional Judgment, Qualitative, Readers Ability 　○ *Qualitative, Quantitative, Reader and Task* 　○ Reader and Task, Difficulty Level, Attention of the Reader 　○ Quantitative, Academic Standards, Professional Judgment	1	1	
Qualitative Dimensions of Text Complexity involve＿＿. *Purpose* 　○ *Text Structure* 　○ *Language Features* 　○ *Knowledge Demands*	1	1	
If a literary text has time shifts, this falls under which domain in the qualitative measure's rubric. 　○ *text structure* 　○ language features	1	1	

o meaning o knowledge demands			
If a literary text has an implicit theme, this falls under which domain in the qualitative measure's rubric. 　　o text structure 　　o language features 　　o *meaning* 　　o k0wledge demands	1	1	
If a literary text has predictable organization, it is considered to be __ in the qualitative measure's rubric. very complex 　　o exceedingly complex 　　o moderately complex 　　o *slightly complex*	1	1	
If a literary text explores experiences common to many readers, it would be considered_in the qualitative measure's rubric. very complex 　　o exceedingly complex 　　o moderately complex 　　o *slightly complex*	1	1	
If an informational text has complex sentences this, falls under which domain in the qualitative measures' rubric. text structure 　　o *language features* 　　o meaning 　　o k0wledge demands	1	1	

APPENDIX B

IRB Exemption Form

IRB
INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129
FWA: 00005331/IRB Regn. 0003571

MIDDLE TENNESSEE STATE UNIVERSITY

IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Friday, October 15, 2021

Protocol Title	***Examining the Relationship among Teacher Mindset Knowledge of Text Complexity and Text Selection on Student Readhing Achievement***
Protocol ID	**22-2040 5**

Principal Investigator	**Kimberly Bell** (Student)	*Faculty Advisor:* Amy Elleman
Co-Investigators	NONE	
Investigator Email(s)	ksbell@mtmail.mtsu.edu; amy.elleman@mtsu.edu	
Department	Education (Literacy Studies PhD Program)	
Funding	NONE	

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU IRB through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category *(5) Research involving materials*. A summary of the IRB action is tabulated below:

IRB Action	APPROVED for ONE YEAR		
Date of Expiration	**10/31/2022**	Date of Approval: 10/15/21	*Recent Amendment:* NONE
Sample Size	ONE HUNDRED AND FORTY (140) records		

Participant Pool	*Target Population 1:*
	    Primary Classification: **Adults (18 years or older)**
	    Specific Classification: **School Teachers**
	Target Population 2:
	    Primary Classification: **Minors (17 years or younger)**
	    Specific Classification: **Students of Target Population 1 (Wilson County)**		

Type of Interaction	☒ Non-interventional or Data Analysis ☐ Virtual/Remote/Online interaction ☐ In person or physical interaction – Mandatory COVID-19 Management		
Exceptions	1. Permitted to use academic performance records of the non-participating students of the non-participating participating teachers. 2. Professional Development Data collected from teachers is permitte		
Restrictions	**1. NOT permitted for new data collection.** **2. Other than the exceptions above, identifiable data/artifacts, such as, audio/video data, photographs, handwriting samples, personal address, driving records, social security number, and etc., MUST NOT be collected. Recorded identifiable information must be deidentified as described in the protocol.** **3. Mandatory Final report (refer last page).**		
Approved Templates	*IRB Templates:* NONE *Non-MTSU Templates:* NONE		
Research Inducement	NONE		
Comments	NONE		

APPENDIX C

Teacher District Created Survey

Demographics

1. How many years have you been teaching?
2. Age
3. Gender
4. What is the highest degree you hold?
5. What grade do you currently teach?
6. What subject(s) do you currently teach?
7. Which best describes your classroom structure?
8. I have participated in approximately___hours of professional development around text complexity.

Teacher Growth Mindset Survey Items
6-point Likert scale 1 strongly agree – 6 strongly disagree
(6 items)
1. You have a certain amount of intelligence, and you can't really do much to change it. (reversed)
2. Your intelligence is something about you that you can't change very much. (reversed)
3. No matter who you are, you can significantly change your intelligence level.
4. You can always substantially change how intelligent you are.
5. You can learn new things, but you can't really change your basic intelligence. (reversed)
6. You can change even your basic intelligence level considerably.

Teacher Literacy Mindset Survey Items
6-point Likert scale 1 strongly disagree – 6 strongly agree
(10 items)
1. Reading ability is difficult to change. (reversed)
2. If someone struggles with reading, they will likely struggle no matter what they do.(reversed)
3. Students can read text above their Lexile level.
4. I feel that all of my students can become better readers.
5. I allow students to choose text above their Lexile level for independent reading.
6. Students in my class must read at their Lexile level for independent reading.
7. Even if students get frustrated reading difficult text, they can still learn from the text.
8. Frustration while reading is detrimental to student progress. (reversed)
9. Even though students can make substantial improvement in math; their ability in reading will not change. (reversed)

Teacher Text Complexity Knowledge
Multiple Choice Items (Scored 1 or 0)

General Quantitative Knowledge-Evaluating Complex Text (3 items)
1. Evaluating Lexile levels of a text will give___complexity measures. (68%)
   - *Quantitative*
   - Reader and Task
   - Instructional Level
   - Qualitative

2. Quantitative text complexity is commonly measured by_____. (63%)
   - *Sentence length, word count, word frequency*
   - Language structure, text structure, text features
   - Word count, number of long words, amount of background knowledge

3. What 3 factors should be considered when choosing text? (84%)
   - Professional Judgment, Qualitative, Readers Ability
   - *Qualitative, Quantitative, Reader and Task*
   - Reader and Task, Difficulty Level, Attention of the Reader
   - Quantitative, Academic Standards, Professional Judgment

Qualitative Features of Text Knowledge (6 items)
4. Qualitative Dimensions of Text Complexity involve_. (75%)
   - *Purpose*
   - *Text Structure*
   - *Language Features*
   - *Knowledge Demands*

5. If a literary text has time shifts, this falls under which domain in the qualitative measure's rubric. (63%)
   - *text structure*
   - language features
   - meaning
   - knowledge demands

6. If a literary text has an implicit theme, this falls under which domain in the qualitative measure's rubric. (61%)
   - text structure
   - language features
   - *meaning*
   - knowledge demands

7. If a literary text has predictable organization, it is considered to be __ in the qualitative measure's rubric. (82%)
   - very complex

o   exceedingly complex
o   moderately complex
o   *slightly complex*

8. If a literary text explores experiences common to many readers, it would be considered_____in the qualitative measure's rubric. (63%)
o   very complex
o   exceedingly complex
o   moderately complex
o   *slightly complex*

9. If an informational text has complex sentences this, falls under which domain in the qualitative measures' rubric. (79%)
o   text structure
o   *language features*
o   meaning
o   knowledge demands

Teacher Reported Reading Strategies
(1 item)
1. What strategies do you use for reading instruction? (check all that apply)
o   Read Aloud
o   Small Group Reading (i.e. Guided Reading)
o   Close Reading
o   Independent Reading (student choose books from a classroom library)
o   Shared/Partner Reading
o   Whole Group reading (students read aloud, i.e. popcorn read or take turns reading in whole group)
o   Choral reading with the teacher

Qualitative Analysis Questions
(6 items) 3 Open Ended
1. What method/program do you use to determine complexity of a text?
2. What characteristics are important to consider in determining if a text is complex?
3. When selecting complex text for instruction teachers should consider_____.
4. How do you choose text for instruction? (choose all that apply)
I only use text from the Basal.
My district mandates the text titles.
My school administration mandates the text.
I work with my grade level team in choosing text.
I choose text I like to use.
I choose text based on complexity and purpose.
(1-Yes, 2-No, 3-Somewhat)
5. I feel equipped in selecting complex text for instructional purposes.
6. I feel equipped to analyze text for qualitative features.