

Dialogic Pedagogy and Reading Comprehension: Examining the Effect of Dialogic
Support on Reading Comprehension for Adolescents

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Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State
University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

In

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March 24, 2020

Blacksburg, VA

Keywords: English Language Arts, dialogic pedagogy, reading comprehension,
intertextuality

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ABSTRACT

The reading comprehension scores of students in secondary education have been stagnant since the collection of national statistics on reading comprehension began (National Assessment on Educational Progress [NAEP], 2015, 2017, 2019). This study explored the effect of providing dialogic and thematic support on reading comprehension and intertextuality. The theories of dialogic pedagogy (Fecho, 2011; Stewart, 2019) and cognitive flexibility in reading (Spiro et al., 1987), along with the construction-integration model of reading comprehension (Kinstch, 2004) formed the foundation for this study. The study focused on the reading comprehension and ability to make connections across texts of 184 participants enrolled in 9th or 10th grade English classes in a high school in the Appalachian region of the southeastern United States. Methods included an experimental study which required participants to participate in two rounds of testing: the Nelson Denny Reading Test to provide reading levels and the Thematically Connected Dialogic Pedagogy (TCDP) testing which introduced dialogic and thematic support for reading comprehension and intertextuality. For the TCDP testing, participants were randomly assigned to one of three conditions: Thematically Connected Texts (TC), Thematically Connected Texts with Dialogic Support (TCDS), or a Control. Results from testing were analyzed to compare performance on outcome measures for reading

comprehension and ability to make connections between texts. These comparisons suggest that the interventions do not affect either outcome measure significantly, though the data highlight the need for a nuanced approach to reading intervention and the development of adolescents' ability to use textual evidence. The findings drawn from the data point to implications for English educators, teacher educators, and administrators in the areas of assisting adolescents in making meaning from texts at a level that facilitates applying that knowledge in effective ways in order for them to fully participate in social, civic, and economic matters.

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GENERAL AUDIENCE ABSTRACT

This quantitative study focused on the effect of reading support for adolescents centered on a dialogic pedagogy in an effort to improve reading comprehension outcomes and the ability of adolescents to make connections across texts. The study involved an experimental research design in which participants enrolled in 9th and 10th grade English classes in the southeastern United States were randomly assigned to one of three test conditions. Performance on outcome measures for reading comprehension and participant ability to make connections between texts were compared between conditions. These comparisons suggest the interventions do not affect either outcome measure significantly, though the data highlight the need for further support for adolescent readers with implications for English educators, teacher educators, and administrators in supporting adolescent reading comprehension and intertextuality to promote full social, civic, and economic participation for future generations.

Dedication

To Hannah, who is associated with everything good and meaningful in my life. While I am indebted to many people for the help and guidance they have provided me in my efforts, I would not be here in the first place had you not supported and encouraged the endeavor at the start. It was a large step of faith, but you were insistent that we choose the unknown and promising path over the security offered by playing it safe. I am thankful every day that you are in my life.

Acknowledgments

There are many people who I would like to thank for the support and guidance provided in completing this dissertation. First, I would like to thank Dr. Trevor Stewart for guiding me through this process and showing, through action, what it means to be an academic and a mentor. I am indebted to you for your efforts over the last several years in a way I am certain I can never repay.

I would also like to thank the committee members who have been a part of this work from the start of my doctoral program. I am indebted to you, as well, for the insight, help, and kindness you have shown me over the years. Dr. Heidi Anne Mesmer, I am truly grateful for the time you took, sometimes hours at a time, in helping me understand reading theory and figure out how to design this study. Dr. Amy Azano, I appreciate how you reminded me to think of the children I would be working with and be cognizant of who they were as I designed the study. Dr. Bonnie Billingsley, I appreciate how you were always invested in what I was doing, ready with positive support, and especially for easing the anxiety and fear I had initially when I started my doctoral work.

I would like to thank my peers who have been a part of this journey with me in pursuing a doctorate degree. Pamela Lindstrom, Heather Turner, Erika Bass, Ricky Mullins, Brooke Mullins, and Amanda Biviano – you have all been a constant source of support and camaraderie that has been indispensable in overcoming the struggles I experienced over the last several years. Pamela, having you as a partner through this program helped push me to stay and finish and I don't think I would have been as successful without you. Heather, I cannot thank you enough for the time and effort you

gave in helping me collect and code data without any other compensation than helping me out. I could not have completed this without you.

And to Oliver and Daphne. Sometimes it helps a lot to put research to the side and build a blanket fort.

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Chapter 1: Contextualizing the Problem

The purpose of this study is to determine if the inclusion of a dialogical (Fecho, 2011; Stewart, 2019) approach to reading print materials might assist in the transfer of reading comprehension and intertextuality gains to novel texts. This study is designed to ascertain if such an approach can produce measurable gains in adolescent readers' ability to read, comprehend, and make connections between texts. A second key aim of this project was to collect data to further examine the utility of a thematic, dialogic approaches literacy instruction in the general education secondary English classroom by using an intervention designed to explore potential supplements to comprehension strategies, which are the most cited means to improve reading comprehension of students in secondary English classrooms (Biancarosa & Snow, 2004; National Reading Panel, 2000; Ness, 2009;). Specifically, this proposed intervention examines what happens when a reading situation draws on students' personal experience and semantic knowledge through a pedagogical approach that brings content into dialogue with students' lives (Fecho, 2011; Stewart, 2010). The findings and implications of this study will be theorized to discuss ways in which researchers, teachers, and teacher educators might better assist adolescent readers in the development of the literate practices necessary for full participation in their chosen social, civic, and economic endeavors.

The Story of the Problem

The problem of planning instruction that supports adolescent readers in general secondary English classrooms that both allows a student's life to come into dialogue with the texts being studied in the classroom and aids comprehension in adolescent readers is certainly complex. It is an endeavor that gave me pause as a classroom teacher and

supporting adolescent readers has been a common struggle for the teacher candidates I have worked with over the last five years as a University Supervisor in the English Education program at Virginia Tech. While direct instruction in reading comprehension strategies is integral to reading comprehension gains for secondary education students, the connections between the texts of the classroom and the world they know represents an underused source for aiding students in comprehending and applying gains in understanding from their reading (Fecho, 2011; Lai et al., 2014; Luke et al., 2011).

My own interest in adolescent readers in middle and high school reading fluently with comprehension stems from the contrast between my own experiences in education and reading as a student and son of teacher parents and my later experiences as a teacher of middle and high school students. Before my own enrollment in public school, education had a prominent place in my house: Both of my parents taught English, as well as other subjects, in high schools in the county I grew up in. Early on, I saw an aspect of teaching that most others don't see: the work that goes on behind the scenes of teaching. I can still picture my father sitting at the small kitchen table, grading papers. Our black-and-white television, perched on a no-longer-needed wooden highchair, would be turned to either the evening news or a Lakers game while he graded papers for hours. My mother would keep us out as best she could while he went over student work in our home. My mother usually did all her requisite work at school, which I found inconvenient as she taught at my high school and she was my ride home. Hours were spent waiting on my high school campus while my mother planned, graded, readied materials, and conferenced with parents and students. She would eventually come out of her office and gather my older sister and me up to head back to our house. I was not conscious,

however, that I was forming my conception of teaching at that time, but I can see now that I had roughed out from those experiences that teaching involved hard work in terms of preparing lessons for students and grading work to give back to those students as a means of feedback to them. As I had no interest in the teaching aspect of education at that point, I left my roughly formed concepts of what it meant to teach alone until my own teaching experience began. Once I began my career as a teacher, I pulled from these concepts to inform my own instruction with students.

At the start of my teaching career, I worked under the assumption that I could equate my own experiences of being a student and my observations of my past teachers to those of the students in my classroom. My work, like the work of many new teachers, was being informed by my apprenticeship of observation (Britzman, 2003), drawing from my own experience as a student observing teachers to inform my practice of teaching. This perspective was limiting my effectiveness.

While I had grown up in an affluent suburban city on the coast of southern California, the students I was teaching were from rural North Carolina. The ways in which we viewed and understood the world were different. For example, I was in the process of writing a disciplinary referral one day in class because I thought he was discussing something inappropriate when he was talking about a “cooter.” The student, along with others, were quick to point out that a “cooter” was another name for a turtle. The students then began to inform me that one could make “cooter stew” and the place where the turtles could be caught locally was just past the school a couple of miles down the road at a creek-fed pond between two rolling hills known to them as “cooter holler.” What struck me about the conversation was that here was a whole part of my student’s

lives, right down to the language that was common to them all, that I was ignorant of. I was working behind a cultural lens that assumed homogeneity with my own culture rather than approaching my practice with a care to incorporate the different cultures that made up my classes (Delpit, 2006). This episode was emblematic of a larger issue in my teaching I recognized: I lacked a cultural understanding of the students I was teaching which created an obstacle for planning instruction that allowed their lives to come into dialogue with the curriculum of the class to aid them in making meaning from what was being read, viewed, heard, and discussed. Reflecting upon my experiences as a classroom teaching and placing them against the backdrop of what I've learned about the importance of context and culture from my doctoral studies has helped me see that classrooms are not free of outside contexts that influence, inform, and direct meaning making by students.

Beyond the initial difference in experiences, I also noted a difference in reading from my own days in high school. My expectation was that the students in my class would be fluent readers who would not balk at individual reading assignments. What I discovered was that many, if not all, of my students in my regular English classes struggled in some fashion or another in reading. While some words were unfamiliar to them, these students could recognize many of the individual words and could identify the meaning of those words, yet the students in my classes struggled to form a coherent understanding of the entire reading. While that would be a concern for me, what was more alarming was that the struggle in reading interfered with comprehension of the material despite my attempts at aiding them with reading comprehension strategies, such as reading guide questions or graphic organizers. Post-reading, it was evident that the

students still had little understanding of the text, rendering most of instruction useless as it took for granted comprehension from the material. This, in turn, precluded the students being able to make connections to other texts or prior experience as students' struggles with comprehension prevented a viable mental model of the novel text to use in comparison. Confronted with the need for better comprehension and dialogue between the texts of the class and the texts of students' lives, I became curious about the relationship between the two, the effect that a dialogic approach (Fecho, 2011; Nystrand, 2006; Stewart, 2010), which utilized the known and familiar from the students' own experiences could have on facilitating the reading process and helping to improve comprehension and the ability of students to make connections between texts.

Rationale and Significance

My own frustrations in the reading ability of my students led me to talking with the other educators at the high school I taught at. The other teachers in the English department as well as the teachers in the social sciences corroborated what I was finding with my own students: They struggled with reading which seemed to affect their comprehension of the material. I expanded my inquiry to include teachers from other schools in the area and other parts of the state. The teachers I talked with felt that many of their students struggled with reading grade-level texts, and they had little to offer as a solution beyond reading activities focused on comprehension. Their approach was not unwarranted as the most recognized path to improved comprehension in readers reading below grade level is direct instruction in comprehension (Biancarosa & Snow, 2004; Lai et al., 2014; Mckeown et al., 2009; Ness, 2008) Comprehension strategies tended to factor heavily into these conversations as standardized tests loomed at the end of the year

and that was how the teachers in North Carolina were being assessed on their instructional effectiveness.

What was lacking in these discussions was twofold: first, the concern over how students could make meaning between the texts that were chosen as part of the curriculum and the world as they knew and experienced it, and, second, a means to aid students in making connections between multiple texts. For the first concern, instructional planning decisions seemed to be devoid of a place for the students' lived experiences. The curriculum that I was asked to teach in my classroom was often inspired by a culture of fear promoted by the myth that schools were indeed failing and that drastic steps were necessary to prevent its collapse (Berliner & Biddle, 1995). That curriculum established what was appropriate and right externally from the lives that my students led (Gee, 2008). This instruction, which views students as repositories where knowledge is deposited, is insensitive to and unaware of the experience of the students in my classes (Freire, 1970), and was compounded by two more factors: poverty and the tradition of teaching that I pursued.

In the area I taught, poverty is an issue for the children who the school serves, not only in the sense that it puts a strain on the families in the area to meet basic needs, but also in the sense that areas of poverty see a decrease in student-centered teaching, a decrease that is inversely-related with the increase of poverty and racial diversity (Cuban, 2009). An omission of the student from the means of instruction gives rise to the omission of the different forms of literacy that are formed through the sociocultural background of the students (Gee, 2008).

Further trouble is presented in the methods that teachers are asked to employ in class, methods that might not reflect the best way to teach the students in the room (Delpit, 2006). The teacher falters under the weight of the struggle to make students into what they views as good learners without realizing that the students are not responsive to the instruction and are aware that their presence in the classroom is involuntary (Lortie, 2002). To be candid, I feel that this is a fair description of the type of instruction I employed early in my teaching career, which I now attribute as part of my difficulty in getting students to engage with the curriculum. My analogy that I cynically turned to was that my students were like prisoners doing time in my classroom, watching the clock as Jensen (2004) so artfully described, waiting for the bell to signal parole at the end of the day. The school, in that environment, becomes a dehumanizing place that oppresses the students (Freire, 1970).

The first obstacle to be overcome is the re-centering of the curriculum to the local context that a teacher is teaching in. Thinking is part of a cultural practice, meaning that people with different cultural frames are going to approach learning differently (Smagorinsky, 2007). Teachers should observe the students they are teaching, noting the places they are having difficulty understanding their students, and invite student input to help clarify understanding (Freire, 1970). Dialogic pedagogy, a teaching stance that seeks to bring the texts of students' lives into dialogue with the texts of the classroom (Stewart, 2010), represents an approach to teaching that can build on basic reading processes in order to better serve students. My graduate work has led me to see that by bringing students' lives into dialogue with the texts of the classroom students may be able to use

the familiar to better comprehend novel texts and synthesize multiple texts in forming new meaning. I will discuss this further in the theoretical framework.

A dialogical approach also provides a framework for addressing the second concern of discovering a means to aid intertextuality through instruction in the general English education classroom. Applying a dialogic lens to reading instruction, in particular, represents an exciting and, I argue, much needed area of study that may provide classroom teachers with tools that might help students better comprehend texts as they develop the literate practices needed to fully engage in social, civic, and economic life on their own terms.

In professional developments that I participated in during my time as a middle and high school English teacher, the emphasis seemed to be on guiding students on effectively applying reading comprehension strategies that were aimed at eliciting the most salient pieces of information from a single text (Abrams et al., 2003; Luke et al., 2011; Mckeown et al., 2009). However, the training I received on reading comprehension strategies still left me feeling unprepared for dealing with the myriad needs of the students in the classroom in reading or helping students apply what they gained from reading after comprehending a passage. I was not alone, as most teachers in middle- and high schools are trained in the teaching of reading comprehension strategies and lack the ability to address other reading difficulties (Harris, 2007; Joseph & Schisler, 2009; Snow & Moje, 2010). There exists a need to aid English education teachers at the middle and high school level to plan instruction that allows for students to make meaning from texts but also facilitates the making of connections between texts. Comprehending texts and

making meaning from them are literacies necessary for full participation in life both in and out of school.

Problem Statement

The current recommendation for teachers to address reading comprehension difficulty at the secondary level is through direct instruction in strategies (Biancarosa & Snow, 2004; Brevik, 2019; Luke et al., 2011; Ness, 2009; Pearson & Cervetti, 2017; Snow, 2002) My experiences in the high school classroom and in teacher preparation tell me that teachers need a way to engage students in the texts of the classroom that allow for the texts of students' own lives to come into dialogue with those texts to make meaning. Engaging students in such dialogue, though, certainly requires tools that can help students make gains in reading comprehension and intertextuality—the ability of students to make connections between texts.

A dialogical approach would encourage students to use their own previous knowledge and experiences to facilitate their understanding of novel texts and provide a means to connect to other texts the students would be familiar with. The necessity of an approach that facilitates both engagement and comprehension can be seen in the flat growth in comprehension rates seen in the National Assessment on Educational Progress (NAEP). The most recent report (NAEP, 2019) details that only 34% of eighth-graders read at a proficient level in the United States, and the scores are down two points from the report in 2017. Twelfth-grade students, according to the 2015 (NAEP, 2015) report (the last report which includes a national statistic for reading for 12th grade), maintain the rate from 2013: 37% of twelfth-grade students read at the proficient level. In short, many students in middle- and high schools still struggle with reading (Biancarosa & Snow,

2004; Harris, 2007; Paul & Clarke, 2016; Snow, 2002; Snow & Moje, 2010). However, the current environment of high-stakes testing has skewed the curriculum (Chubb & Ravitch, 2009; Nichols & Berliner, 2007; Toscano, 2013). As it pertains to teaching English in middle- and high schools, a test-centric curriculum has placed the emphasis on reading comprehension that relates directly to performance on standardized tests (Davis & Willson, 2015; Hill et al., 2019; Nichols & Berliner, 2007). Yet the underlying needs of students in reading persist.

The vision of what it means to be a literate individual in society has shifted from what it meant a few decades ago. With the expansion of technology, the view of literacy as solely functional literacy, print-based alphabetic knowledge, is harder to justify; texts in the twenty-first century are multimodal and intertextual, where one text will point to another one (Hagood, 2009). Incorporating multiple literacies students possess (Gee, 2008), schools should be expanding what counts as reading (Alvermann, 2001; Hagood, 2009; Smagorinsky, 2018). Expanding the concept of what counts as reading sounds practical and necessary considering the expansion of texts, what counts as text, and the manner in which people employ those texts – students might look proficient in one context and deficient in another (Hagood, 2009).

While that may be the case, views of literacy as traditionally defined persist in schools. In one form or another, goals for literacy instruction are often broadly defined as students gaining the ability to read and write from various sources and for a variety of purposes (Landis & Moje, 2003). Two influential works in 21st century literacy, the RAND research study group (Snow, 2002) and Reading NEXT (Biancarosa & Snow, 2004), still place emphasis on traditional literacy in secondary education, with a heavy

investment in reading comprehension (Hagood, 2009). Comprehension's privileged place is observed from the first page of Reading NEXT, where teachers are exhorted to get beyond the basic literacy skills of elementary school by

teaching them new literacy skills: how to read purposefully, select materials that are of interest, learn from those materials, figure out the meanings of unfamiliar words, integrate new information with information previously known, resolve conflicting content in different texts, differentiate fact from opinion, and recognize the perspective of the writer—in short, they must be taught how to comprehend (p.1).

However, it is worth noting that the emphasis seen in national standards of reading comprehension give a skewed view of how adolescents are able to comprehend texts, as the measures of assessing comprehension fail to account for the way adolescents are able to make meaning in other literacies outside of an academic context (Alvermann, 2001; Hagood, 2009). Teachers working from a dialogical stance see students' lives as the starting point for developing and implementing instruction (Stewart et al., 2019). Thus, a dialogical approach to reading instruction would encourage the inclusion of multiple literacies that students possess in order to make sense of novel texts. Further, the intentional planning of units around a central theme addressing a larger philosophical question facilitates the inclusion of multiple ways of knowing and making sense of the texts of the class.

However, as instruction tends to follow assessment, the use of assessments that emphasize comprehension will dictate a curriculum that reinforces comprehension from print-based sources (Hagood, 2009). Comparison of students with reading difficulty to

assessment norms within that curriculum then create a deficiency view of the student who is struggling. That deficiency is then assigned to either insufficient ability or the inadequacy of the spheres of his or her other literacies: home or community environments (Landis & Moje, 2003). According to Snow and Moje (2010), teachers who hold that deficiency view tend to emphasize, and potentially overemphasize, reading comprehension strategies. However, Snow and Moje point out that the over-reliance on comprehension strategies may limit the student's broader understanding of the text. The student may wonder why he or she has to pull out main ideas from a text if he or she does not see a clear connection to a meaningful context outside the passage being read.

Being able to comprehend from text is still an important avenue to knowledge; however, students need to be able to attach that knowledge to a context that is personally meaningful—or authentic (Nystrand, 2006). While curriculum needs to incorporate the multimodality of texts and the broader relatedness of texts, instruction needs to target the acquisition of print skills (Hagood, 2009). Rather than rely on general comprehension strategies in the classroom, students who are struggling with reading often need targeted interventions in the underlying skills of reading (Snow & Moje, 2010). In my view, dialogic pedagogy (Fecho, 2011; Stewart, 2010) has much to offer teachers and researchers interested in developing innovative interventions that can better support adolescent readers.

Research Question

In the United States, there is a growing concern regarding the ability of students to read at a level commensurate with the growing complexity and connectedness of the 21st-century world, a concern reflected in the mission statement of the U.S. Department

of Education which emphasizes two goals for formal education: achievement and a competitiveness in a global economy (Boggs et al., 2018; Stewart & Goodman, 2015; U.S. Department of Education, 2011). In the report, *Reading Next*, Biancarosa and Snow (2004) reported that 70% of adolescent readers in the United States would need some level of reading remediation as they would be below grade-level reading ability for the grade they were in. The report further details how direct reading instruction tapers off after third grade, with an increasing focus on reading comprehension and the application of strategies that aid comprehension.

Reading comprehension is still an important goal for classrooms in the United States. Aside from the emphasis placed on the skill from standardized testing, comprehension is a marker for the successful acquisition of knowledge and potential future use of that knowledge (Biancarosa & Snow, 2004; Snow, 2002). As cognitive resources are limited (LaBerge & Samuels, 1974; Posner & Snyder, 2004), improving the efficiency with which readers form a mental model of the text being read and integrate that model with what they already know can pay dividends in reading comprehension. Key to those efforts would be improving the recall of information by activating prior knowledge in order for quicker recognition of words and retrieval of their meaning (Posner & Snyder, 2004). Additionally, the development of effective comparisons of texts with overlapping word selection and meaning can increase the ability of students to read fluently and apply self-monitoring strategies for comprehension (Cartwright, 2008; Kuhn et al., 2000; Levy & Collins, 2008). The selection and arrangement of texts around a central theme or essential question then can reduce the cognitive demand of forming a mental model of the text may improve comprehension and intertextuality.

This study is designed to understand how the social construction of knowledge, dialogic approach to planning instruction, and thematic connections between texts might aid students in middle- and high-school English education classrooms make gains in reading comprehension and intertextuality. The following question will inform and guide my inquiry and exploration into this area:

RQ: For adolescent readers, how might a dialogic approach influence reading comprehension and intertextual connections using thematically connected texts as compared to unconnected texts or thematically connected texts without a dialogic approach?

Theoretical Framework

In this section I will outline a theoretical framework that establishes the view from which I will explore the utility of dialogic approaches to reading instruction that support personal and thematic connections and semantic overlap in texts with adolescent readers. Due to the cognitive aspects of reading comprehension and meaning-making, my framework incorporates theories connected to: (a) Dialogic Pedagogy (Fecho, 2011; Stewart, 2010); (b) the development of concepts in a child's language and the social construction of knowledge in general (Vygotsky, 1987); (c) the development of word reading skills (Ehri, 1995); (d) the contributions of attention and working memory to reading (Baddeley, 2002; Posner & Snyder, 2004); and (e) the necessity for flexible application of knowledge to reading (Cartwright, 2008; Spiro et al., 1987). These theories provide the frame from which I explore the effects a dialogic approach to

instruction might have on reading comprehension for adolescents in a general English education classroom.

The Social Construction of Knowledge

Central to my theoretical orientation, is the concept that knowledge does not exist apart from the knower. Language is imbricated with the cultural connotations and authoritative, codified meanings assigned to words. The tension between the centripetal and centrifugal forces of language (Bakhtin, 1981) and culture that tug on words means that the words we use and our cultural experiences with them color the knowledge we *create*. Knowledge is constructed by a person through social interaction with the world around him or her (Vygotsky, 1987). Students, while able to form rudimentary concepts of the world need the aid of a more knowledgeable other, someone who possesses more knowledge in an area than the student, to assemble the academic knowledge that they lack (Vygotsky, 1987).

The dynamic nature of language and culture requires that attention be paid to both the centripetal and centrifugal forces of language (Bakhtin, 1981). When these forces are in healthy tension (one not dominating at the expense of another), the centripetal forces of language provide unified, agreed-upon meanings of words which serve as a necessary starting point for communication and meaning making. Formal education arises as a result of the need of society to teach children the formal knowledge deemed necessary that cannot be attained through informal means (Dewey, 1916). Thus, children attend school to be taught by teachers. Teachers function as a more experienced peer who can prepare children for functioning in an adult society characterized by change and who can “look beyond the acquisition of discrete skills and contextualize literacy development in a

broader picture” (Boggs et al., 2018, p. 564) in order for them to participate fully across multiple aspects of society.

A critical view of traditional instruction has questioned banking models of education (Freire, 1970) in which knowledge is dumped passively into students as empty receptacles. A better understanding of how students learn while reading, and one that keeps with the constructivist view, is that of transaction. Rosenblatt (1995) further developed Dewey’s concept of transaction to argue that student and text transact in a way that produces new meaning that is unique to the context and time that the transaction took place. In this manner, the learning is both effective in teaching new information to the student and in allowing the student to make the information meaningful to him or her by allowing the student to bring his or her life into dialogue with the subject. Working from the perspective that transaction is the manner in which students learn in the reading process, it would seem paramount that any view of literacy education elaborates on what students and text contribute to the transaction in an English class in secondary education. Thus, the concepts of dialogism (Bakhtin, 1981) and dialogic pedagogy (Fecho, 2011; Stewart, 2017) has the potential to inform efforts to better support adolescents’ abilities to read, comprehend, and make meaning from texts.

Dialogic Pedagogy & Reading

Reading comprehension can be seen as the composite of several processes running fluently and concurrently during reading (LaBerge & Samuels, 1974). Accurate word recognition is necessary for a reader to piece together the meaning in a sentence of text, or the microstructure of text (Kinstch, 2004). The understanding of the microstructure of a text builds the global understanding of the text as a whole, or the

macrostructure. The microstructure and macrostructure of the text form the textbase, “the semantic underpinning of a text” (p. 1274). This textbase provides the information that informs the situation model, the reader’s understanding of the text independent of how it was expressed and its connection to the readers own previous knowledge and experiences. These connections between the reader and the text form a unique text as the reservoirs of experience a student forms through previous transactions frame the understanding of any text or concept that the he or she encounters during learning (Rosenblatt, 1995).

Any understanding of a concept is unique, even if ever so slightly, to the individual due to the transaction between student and text. Reading and making meaning from texts, though, relies on the macro level of understanding text; that is the text as a whole and its connection to other texts (Alvermann, Phelps, & Gillis, 2010). The inclusion of multiple genres within the content area and frequent need for intertextual connections present unique challenges in the English classroom that call for an approach that both aids in the comprehension of a text and making connections beyond the confines of a single text.

An approach to teaching reading in the English classroom rooted in Dialogic Pedagogy supplies a means to how the present environment can be utilized by students to learn both the content of a single passage and the process connecting to other texts the students are familiar with. Dialogic Pedagogy is based on Bakhtinian dialogism (Bakhtin, 1981) which includes the conception of words as live speech in an ongoing dialogue with our own cultural experiences that we bring to bear to understand other’s words. As a pedagogical stance, Dialogic Pedagogy is “an approach to teaching that values

questioning, examines context, explores multiple perspectives, challenges hierarchical structures, and views learning as a generative act” (Stewart, 2019, p. 213). A dialogical stance in teaching in the English classroom relies on inquiry, critique, and dialogue for learning to occur (Fecho, 2011). Inquiry in that students are seeking to answer questions that rely on both the texts of the classroom and the texts of their lives, and critique in that students are encouraged to make meaning based on the transaction of the texts in the classroom. Students find that when the text of their lives comes into dialogue with the texts of the classroom; previously held beliefs are put into “wobble” and new meaning is formed from the transaction (Fecho, 2011).

Dialogic Pedagogy provides both a means and the material for students to improve comprehension and intertextuality in the English classroom. The approach facilitates the use of a student’s reservoirs of experience to build a situation model that can then be called upon to aid further reading comprehension. As Dewey (1916) pointed out, “[education] is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience” (p. 82). Dialogic Pedagogy affirms the ability of students to make meaning through the use of their own experiences and social environment but also empowers them to take direction over the application of that meaning in future experience. In this way, Dialogic Pedagogy serves as a critical lens not only to question hierarchies in the English education curriculum as Stewart (2017) suggests, it also honors “cooter soup” and disrupts entrenched notions of what counts as reading instruction for adolescent learners. However, as in reading comprehension in general, Dialogic Pedagogy is dependent on an underlying grasp of the way language represents concepts.

Concept Development in Language

As the construction of meaning is produced through interaction with the world around us, including the social interactions that we pursue (Glaserfeld, 1984; Vygotsky, 1987), it is necessary to consider the way in which language develops into concept representation. In doing so, it is important to make the distinction that word and object-relatedness, while functionally equivalent, are not perfect equivalents of each other; the two share a connection, but one is not a perfect stand-in for the other (Vygotsky, 1987). To illustrate, I may reference a chair in the front of the room as the reclining seat at the front, yet I might also reference the chair as the blue chair with the wheels. The words are different, but the underlying information being brought forth is the same. Underneath the words chosen to identify the chair is a concept of the chair in the mind. This concept contains many different characteristics by which the chair can be classified or identified. For instance, it would be categorized as blue, rolling, reclining, seat, chair, and located at the front. I don't need to reference all these characteristics to allow someone else to identify the chair I am trying to reference; I just need to decide on some characteristics I can use in speech to allow someone else to correctly identify what I am referencing. In essence, the words I am using are not a complete encapsulation of the concept I am trying to evoke but are cues meant to efficiently allow someone else to retrieve that information based on how I would imagine they have cataloged it in memory. The words are not necessarily important other than whether or not they produce the concept that I am trying to recall. Truly, a rose by any other name would smell as sweet, but I would still need to develop the concept of a rose and give it a name.

Vygotsky (1987) articulated a model of concept development in language which occurred in three phases. In very young children, the first phase consists of the child forming syncretic images, unordered heaps of subjective connections regarding objects that correspond with a word. The child assumes an internal connection between objects, which may or may not have an objective connection with each other, based on impressions, perhaps even a single impression. The child has formed a connection between word and undifferentiated images, substituting these subjective connections for the lack of objective connections. As the language is formed through social interaction and experience with adults who have the ability to make objective connections, meanings of a word will occasionally converge on a concrete object. For example, a young child might not have an objective connection that distinguishes milk from other objects but is aware that the word “milk” will produce a functional result when spoken to an adult who does have the ability to form concepts. The adult and child can interact, though the spoken word only had meaning for one of them.

The second phase that occurs as children develop language is the ability to form complexes of objective connections between objects and connect those complexes to words (Vygotsky, 1987). This phase, which is characterized by “complexive thinking” (p. 136), is based on the ability of a child to make *any* objective connection between objects. For example, in this phase of complexive thinking, a child may use the word “ball” to refer to a blue ball and then associate the same word to a blue stuffed animal with soft fur based on the connection of color. The child may then use “ball” to refer to an orange due to its roundness, or a blanket for its softness. If the stuffed animal had shiny eyes, shiny rocks or other shiny objects may also be called “ball” due to a connection based on the

criteria of being shiny. In other words, at the complexive phase of language development of the child, the word forms an umbrella where any objective connection between an object and any object already under the umbrella-term will place the object under that umbrella. This complexive thinking of children develops over time, refining itself first into chained complexes of meaning and then into the pseudoconcept, before children develop the ability to form concepts (Vygotsky, 1987).

As children mature, they develop the ability to form concepts, that words have meanings built around salient characteristics (Vygotsky, 1987). Children initially form concepts based on their experiences, attaching and expressing those concepts in the language that has been socially acquired. As formal instruction begins for children, they begin to form scientific concepts, means of generalizing objects by characteristics and placing them inside an interconnected system of concepts. Indeed, Vygotsky (1987) asserted that the first scientific concept that a child acquires is the system of concepts.

It is important to reiterate that scientific concepts are introduced through instruction (Vygotsky, 1987). Instruction in scientific concepts does not proceed from development in the child but exists in advance of where a child is developmentally. The development of scientific concepts can then be viewed as top-down development of concepts, whereas the everyday concepts, or spontaneous concepts, that children form constitute bottom-up concepts. The area in which the independent development or spontaneous concepts that the child forms meets the instruction in scientific concepts is of importance. The difference between the child's level of independent development and the level of success in performance the child achieves with the collaboration of an adult defines the zone of proximal development, the area in which instruction can effectively

produce new scientific concepts in a student (Vygotsky, 1987). The selection of texts that are thematically-connected and engage the adolescent's own lived experiences and prior knowledge through a dialogical approach to instruction may provide the type of scaffold necessary for adolescents to develop a conceptual framework that aids reading comprehension and make connections to their own lived experiences and other texts.

Contributions of Student Knowledge

Students themselves offer much to the reading experience in the form of unique knowledge that originates from their own experiences garnered from previous experiences in both formal and informal settings from the specific time and place in which students find themselves situated (Berger & Luckmann, 1967; Glasersfeld, 1984; Vygotsky, 1987). This prior experience influences the students' beliefs about school, their own efficacy, their motivation, and the skills they possess. In the sections below, I describe those categorical contributions that students make in order for teachers to be aware of the unique qualities their students bring to the class to utilize them in the transaction that takes place within the class.

Student Prior Knowledge

The place that students live in and the years that they are attending school in influence the nature of the contributions that students can make to the classroom (Applebee, 1996). Students in the city may have an understanding of community as defined by city blocks and multiculturalism as an ever-present reality in the faces around them. Children in rural locations may have a sense of community as a sprawling countryside sparsely populated centered around a common institution, like the school, a community center, or a church.

Both urban and rural areas are acknowledged to have unique needs. Lisa Delpit (2006) saw the need for African-American children in the city to learn the sorting system of the dominant culture and through learning it, they could work to undo the discriminatory practices it perpetuates. Children attending school in rural regions face a different challenge; often they face geographic challenges, educational inequities and related resource or opportunity gaps but are confronted by a larger idealized view of rural life held by those outside of the community making it difficult for their needs to be heard and addressed (Azano, 2015).

Yet despite these needs, the unique nature of where they are in place and time provides a wealth of experience to draw upon to make reading meaningful to students in individual ways if instruction is approached from a dialogical stance. In my own experience in rural North Carolina, I learned much about hunting, farming, husbandry, and sense of history in a very personal, familial way than I had known in my own experience growing up in California. These ways of knowing helped guide my instruction after I realized that the students in my class had a harder time relating to Carson McCullers' account of urban isolation in "The Mortgaged Heart" than they did to a piece I thought they would find too dull, Hamlin Garland's "Under the Lion's Paw," a short story about how a tenant farmer is extorted by a landlord from a nearby town. The connections my students made with the latter work far exceeded my expectations and allowed them to bring their own lives into dialogue with the curriculum in a way that they, and I, found meaningful.

To capture the interest of the students, one must make the curriculum relevant to the lives of the students who are in the classroom (Applebee, 1996; Delpit, 2006), as that

knowledge gained prior to the student's entrance to the classroom is ever-present. Students who struggle with reading a text lean on their own previous knowledge and experiences to make sense of the texts they are struggling with more than students who find the text easily accessible (Hartman, 1995). The impetus then is to find how teachers can help students better effectively apply their own prior knowledge to reading comprehension and intertextual connections.

Skills and Competencies

Students arrive in class with differing levels of ability that require teachers to adapt instruction to utilize both their knowledge from outside the classroom and address the skills and knowledge that they possess prior to transaction in a teacher's class (Applebee, 1996; Darling-Hammond, 2006). As the press for 21st-century knowledge and skills becomes more dominant in the dialogue about what needs to transpire in the classrooms across the country, the nature of the curriculum changes to where the knowledge we expect children to learn in English class becomes much broader, deeper, and more complex than in previous generations which requires a skill-level that exceeds the expectations that preceding generations met in their own schooling (Darling-Hammond, 2006).

In considering the breadth of knowledge students are asked to master in contemporary schools, it is important to recognize that students possess reservoirs of experience that are quite meaningful to them in which they possess a depth of knowledge and can be drawn upon to complement reading strategy instruction in the classroom. There are different forms of literacy that are formed through the sociocultural background of the students (Gee, 2008). These different forms of literacy which Gee (2004) termed

“affinity spaces” represent areas where students are quite literate and can be useful in drawing the students into dialogue with the classroom curriculum. Looking at the multiple literacies students possess and the stories students tell gives insight into how the student’s approach the world and can be recruited into helping gain success in the academic world (Gee, 2008). Developing relationships with students and attending to the unique influences that their time, place, and Discourses (Gee, 2008) have on their reading experiences are instrumental in getting the child to engage in the curriculum of the class and can foster an attitude that serves for further success in and beyond the English classroom.

Word Reading Development

As concepts are developed, one of the most significant symbols that people acquire is language (Vygotsky, 1987). However, Vygotsky (1987) makes the distinction between oral language acquisition and acquisition of the written language. The latter he compares to foreign language acquisition; the acquisition of the written language system, like a foreign language, is dependent upon the acquisition of the native language through social interaction (Vygotsky, 1987).

Considering that my overarching interest is in literacy, how beginning readers acquire the ability to read text is paramount in understanding literacy concerns in later grades. Many of the underlying problems in reading from the early grades persist into middle- and secondary education (Biancarosa & Snow, 2004; U.S. Department of Education, 2013). Considering that persistence, it is worthwhile for understanding reading comprehension difficulties with older students to articulate a theory that addresses the mapping of concepts represented in language to an orthography. In

considering how the acquisition of the written language of English develops, I have found the four-phase alphabetic model articulated by Ehri (1995) to be a framework for understanding how the process, in general, occurs.

The first phase of the process that Ehri (1995) describes is the pre-alphabetic phase. At this stage beginning readers are not attaching any letter-sound significance to the graphemes but are using visual cues to recognize words (Ehri, 1995). They will use any visual cue, such as a smudge, mark, or logo, to identify the word. Given items with which they have experiential knowledge, readers at this stage will often convey ideas behind the word based on images rather than the word displayed (Ehri, 1995). For instance, if the reader is asked about the word printed on a package of Oreos, a reader at this stage might say “cookie” as that is the semantic association they have with that visual cue. Connections at this level in lexical memory are between word meaning and visual cues rather than connections based on letter-sound relationships (Ehri, 1995).

Following the pre-alphabetic phase, readers enter the partial alphabetic phase. Some correspondences between letters and sounds are beginning to be made, typically the beginning and ending letters of words, but these readers still do not have full alphabetic knowledge (Ehri, 1995). The readers at this stage, though, are able to remember words better due to using phonetic cues for lexical memory rather than the visual cues as knowing the alphabetic system aids memory in retrieving information about the pronunciation of words (Ehri, 1995). The ability to make the connection between the letter and the corresponding phoneme for beginning and ending letters allows readers at this stage to recognize some sight words, though the medial vowel poses difficulty for these readers (Ehri, 1995). Students might recognize the “s” and “n”

in the word “spin,” but recall the word “sun” from lexical memory as they attend to the beginning and ending letters. All the phonemes in the word are not accessible to the reader at this point (Ehri, 1995). For that transition to take place, to move from the partial-alphabetic to the full alphabetic, three things need to take place: They need to perceive the shared sounds across words, segment initial sounds in the pronunciation, and recognize how letters symbolize initial sounds in words (Ehri, 1995).

In the full-alphabetic phase, readers make the connection between all phonemes and in the word and the corresponding letters in the written word (Ehri, 1995). The ability of making the letter-sound correspondence when reading words allows the reader to bond spellings to pronunciations in memory improving the recall of sight words from lexical memory (Ehri, 1995). With sight words being represented more completely in memory, word recognition becomes more accurate (Ehri, 1995). Additionally, with full-alphabetic knowledge, readers are able to decode words that have never been encountered before in text. Such decoding, with repeated practice, eventually is replaced by sight-word recognition eliminating the need to decode that word (Ehri, 1995).

In the final phase, the consolidated alphabetic phase, the sight-word lexicon of the reader is able to grow rapidly (Ehri, 1995). As readers at this phase can read more, they recognize patterns in words that represent the same phoneme blend (Ehri, 1995). The recognition and reinforcement from continued reading consolidates that pattern into a unit within the reader’s lexical memory (Ehri, 1995). The consolidated unit, like a syllable, morpheme, or rime, assists the reader at this phase for recognizing new words more rapidly if they demonstrate the multi-letter pattern observed in the consolidated unit (Ehri, 1995). For example, if the reader has consolidated the –ATE ending in words like

“gate” and “crate,” he or she can then apply that pattern to more rapidly decode the novel word “state.”

It is worth pointing out that the accusation could be made that the alphabetic principle as described here could be viewed as a simplification of a knowledge domain (Spiro et al., 1987). Ziegler and Goswami (2005) in their Grain Size theory argue that the development of words and their application to reading is not quite as linear as Ehri portrays it, especially in the case of a language like English, with a deep orthography, an orthography that doesn't correspond transparently with the phonology of the language. Ziegler and Goswami assert that a language with a deep orthography requires readers to move between various grains sizes as they read the text. By grain size, Ziegler and Goswami are referring to various levels of text that a reader might have to access to decode the text, from the syllable at the larger grain size down through smaller grain sizes such as onset-rime, nucleus-coda, phoneme, and the phone. To decode text, readers in English will have to switch the grain size they are operating at which imposes a cognitive switching cost on the reader, which in turn leads to developmental lag when comparing to reading gains in other countries with a more transparent orthography (Ziegler & Goswami, 2005).

Though the critique mentioned above is valid, the four-phase alphabetic model (Ehri, 1995) is descriptive of how readers come to learn how to read and provides a theoretical framework to discuss issues with reading achievement with adolescent readers. As I will be looking at how participants rely on the texts to reference relevant prior knowledge from memory, the four-phase alphabetic model describes how readers

map the language, the symbolic system for concepts, onto the written orthography. To that end, it also behooves me to consider aspects of memory in the reading process.

Attention and Working Memory

To process a stimulus into long-term memory requires the application of attention (Simon, 1986). However, following the theory of attention posed by Posner and Snyder (2004), attention is a limited capacity that is focused on particular stimuli yet can be focused flexibly in response to stimuli (Posner & Snyder, 2004). We passively take note of our surroundings constantly, but, when necessary we can select to focus our attention on particular stimuli depending on the amount of priority we give the stimuli; as we prioritize one stimulus other stimuli that we would habitually take note of are inhibited (Posner & Snyder, 2004). For example, a loud bang might cause a person to turn his or her head and look and listen for the source of the noise. In so doing, other sights and sounds that we had been focusing our attention to various degrees have been inhibited by the preemptory effort of finding the source of the noise (Posner & Snyder, 2004).

People can selectively apply attention to specific stimuli (Posner & Snyder, 2004). According to Posner and Snyder (2004), people can program their attention mechanism in two ways. First, they can select a specific input channel or memory location to receive information from. When I know someone is talking to me in a room, I can screen out the background chatter to focus in on what is being said to me. Second, attention can be used to perform particular operations on information received (Posner & Snyder, 2004). When I read, or hear a piece of information, I can focus in on how that knowledge fits with prior knowledge or generate an application for that knowledge. In

essence, I can turn the attentional mechanism inward to perform some cognitive process on the stimuli (Posner & Snyder, 2004).

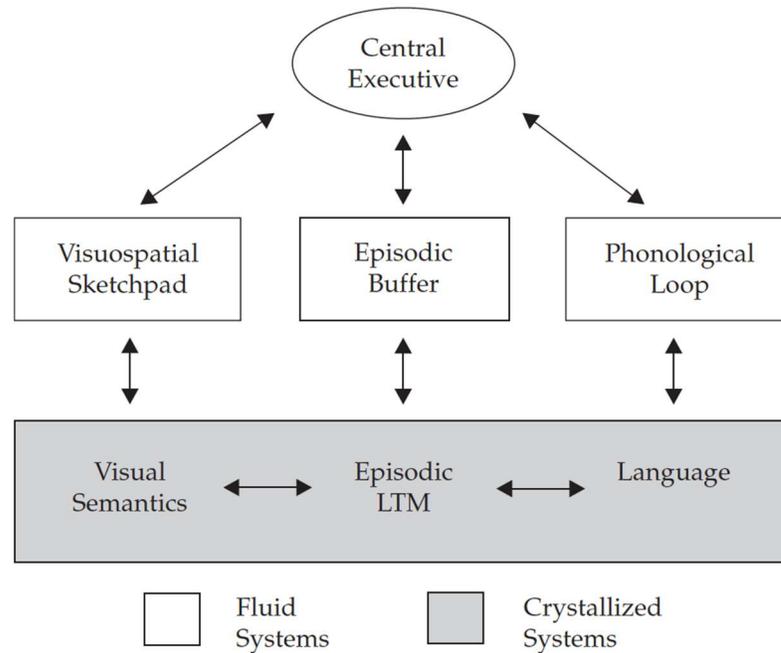
In applying the limited capacity mechanism of attention to lexical decisions in memory, recognizing a string of letters as a word is faster if the word is related to something previously activated (Posner & Snyder, 2004). If I happen to have been reading about flightless birds recently, and I was timed on my response to recognizing a series of letters as a word, my response time on “ostrich” would be faster than my time on “basketball.” The way that information is stored plays a part as well; information that is stored nearer to activated word knowledge is faster than words that are stored in more remote areas of memory (Posner & Snyder, 2004).

Baddeley’s (2002) model of working memory provides a functional explanation of how working memory works as a conduit between long-term memory and the information being considered in the central executive. In the model, there are four principal parts to working memory (Figure 1): the phonological loop, the visuospatial sketchpad, the central executive, and the episodic buffer (Baddeley, 2002). The phonological loop processes all verbal short-term memory, while the visuospatial sketchpad handles all visuospatial information received (Baddeley, 2002). The central executive functions as a resource allocation mechanism for working memory, making decisions about the type of information being recalled from and stored to the long-term memory systems of language, visual semantics, and episodic long-term memory (Baddeley, 2002). The episodic buffer manages information that is stored both visually and verbally (Baddeley, 2002). Working memory then is integral to considering reading

difficulty as it manages the retrieval of word knowledge and encoding of words into long-term memory (Baddeley, 2002).

Figure 1

Baddeley's model of working memory



Note. The current model of working memory revised to incorporate links with long-term memory (LTM) by way of both the subsystems and the newly proposed episodic buffer. “Is Working Memory Working?” by A. Baddeley, 2002, *European Psychologist*, 7(2), p. 93. Copyright 2001 by the American Psychological Association.

Cognitive Flexibility

In considering the limited cognitive resource that attention and working memory represent, Dialogic Pedagogy offers the possibility of reducing the cognitive demand of reading comprehension through engaging the texts of students' lives and prior knowledge and the use of thematically connected texts. By providing a larger thematic framework

for students to consider the text(s) from, students can form a situation model of the text that allows the transfer of schema from one text to another.

While knowledge may be learned in a certain situation, one of the principal concerns of education is that the knowledge students gain is transferable to a new and different situation from the one in which the concept was learned (Cartwright, 2008; Spiro et al., 1987). Knowledge domains that display consistent rules and patterns across the domain, according to Spiro et al. (1987) can be considered well-structured and allow for schema formed in one situation within the domain to be transferred effectively to a new situation within that same domain. However, many domains, including the English language and its orthography, are considered ill-structured: A domain where the scope, breadth, and irregularity of the domain are so complex that the application of background knowledge to novel situations is hard to prescribe (Spiro et al., 1987).

One of the criticisms that Spiro et al. (1987) levy against education is that knowledge domains are often simplified; fields of study are presented to be more well-structured than they actually are. Spiro et al. (1987) maintain that the simplification of knowledge domains is the result of an effort to assist learners in forming representations or schema to help speed up the progress in that domain. However, as mentioned above, the approaches to gaining knowledge in that domain become rigid and transfer poorly to new situations (1987).

The principal tenets of cognitive flexibility rest on two premises. The first premise is that knowledge in ill-structured domains is best accomplished through knowledge representations that feature three characteristics: They promote multiple interconnectedness between domain knowledge, are formed from representations of case

studies and examples that portray multiple dimensions and perspectives, and allow for naturally occurring forms of complexity and irregularity (Spiro et al., 1987). The second premise of cognitive flexibility theory is that, in an ill-structured knowledge domain, people are better able to transfer prior knowledge to novel situations through the promotion of the ability to assemble situation-specific schema rather than a preexisting schema formed in a different context (Spiro et al., 1987).

For education, cognitive flexibility emphasizes multiplicity in learning: The use of multiple schemas, many different case studies viewed from multiple perspectives, and overlapping analogies rather than a single schema or exemplar for students (Spiro et al., 1987). In practice, this involves the use of multiple situations, examples, or case studies that neither share too many similarities nor too many differences initially (Cartwright, 2008; Spiro et al., 1987). The danger in using cases that possess too much in common is that an oversimplified concept of the domain may be formed. However, if too much disparity is reflected among the cases, students may struggle to make connections between cases. Spiro et al. (1987) recommend indexing potential cases for use in teaching that represent cases that possess quite a bit of overlap and cases that are more outliers within the knowledge domain. The aim is that students would be able to use the cases that clearly overlap to form some approach that can be used to understand the domain, while the outliers provide more diverse characteristics to improve the flexibility with which students can apply the knowledge they have acquired (Spiro et al., 1987).

Spiro et al. (1987) in a study with high school students wanted to see if the promotion of situation-specific schema would help facilitate applying the knowledge gained through their application to novel situations, more so than the acquisition of

precompiled schema. They had the high school students read a collection of 24 prominent events of the 20th century, each with a paragraph description of the event. In a control group, the events were linked together under a heading such as “Chaos, Uncertainty, and Irrationality” and “Fragmentation of Old Unities” much like a textbook might organize information into thematic chapters (Spiro et al., 1987). In the experimental group, the students read the same paragraphs about 20th century prominent events but they were not given headings to organize the information. Each group was given the same amount of time to study. On an assessment given to test recall of information in a manner that paralleled the structure of the headings given to the control group, the control group outperformed the experimental group. Following that assessment, the students were given six measures to see how they fared at producing situation-specific schema to address novel situations. The students were asked to do the following: Take two tests on new texts that were marginally related to the texts they had read; Demonstrate comprehension on a text that was connected to three of the texts they had previously read; write an essay on a piece of art from the 20th century; make meaningful connections between randomly paired events from the 20th century that had not been used during the time they had to study; and select the correct description of a 20th century iconic or symbol. On each of these six measures the experimental group outperformed the control group (Spiro et al., 1987).

Applying cognitive flexibility more to reading, Cartwright (2008) posits that cognitive flexibility in reading rests on the idea that reading, writing, and literacy instruction are complex activities that require a person to utilize information from many different sources. Handling these complex activities implies the ability to manage

multiple stimuli or aspects of a situation concurrently in a mental representation (Cartwright, 2008). The ability to manage many mental representations, and do so flexibly, develops over a lifetime and varies between individuals (Cartwright, 2008).

The act of reading contains several levels of cognitive processing: The phonological, orthographic, morphological, lexical, and semantic (Cartwright, 2008). Skilled readers are able to move between these levels of knowledge flexibly, while unskilled readers tend to get stuck on one level of processing the text (Cartwright, 2008). Paralleling how literacy instruction should work, Cartwright (2008) points out that both teacher and student must coordinate many different levels of literacy instruction to enable that instruction to be effective. Students may not be aware of the mental representations at work in reading which requires the teacher to directly address the concept with the student along with intervention (Cartwright, 2008).

Conclusion

Readers must process many kinds of information simultaneously and flexibly to read well. While earlier notions in adapting one's reading approach focused on varying reading rate to accommodate task and purpose of reading, flexibility has been emphasized more recently in knowledge acquisition and representation (Cartwright, 2008). Viewing the written system of English as an ill-structured domain, the focus has shifted to a flexible structure to knowledge to accommodate the ill-structured nature of reading English. The goal is to produce habits of mind that can handle the complexity of reading, though efforts have been frustrated by a lack of clarity regarding the cognitive developmental mechanisms that help form these flexible knowledge structures. However, cognitive-developmental research points to several areas that influence the knowledge

structures involved in literacy and literacy instruction (Cartwright, 2008; Edmonds et al., 2009; Spiro et al., 1987; Zimmerman, 1994): processing the meaning of a text, monitoring one's own comprehension, adjusting attention according to text difficulty, accessing and applying knowledge flexibly, maintaining an awareness of purpose for reading. A person must be able to handle multiple sources of information or processes simultaneously to do all the above.

Building on reading process and strategy instruction, Dialogic Pedagogy, in conjunction with thematic units, has the potential to provide a means to which a situation-specific schema can be developed by the reader to help process the meaning of a text, access and apply knowledge flexibly, and maintain an awareness of purpose for reading. Through engaging a reader with a dialogic approach, such as a binding theme or essential question which puts the prior knowledge of the reader into dialogue with the texts of the classroom, a reader can form a broad schema that aids comprehension of a single text, facilitates the transfer of comprehension gains from one text to another, and improves the connections that readers can make between texts.

In chapter 2, I discuss the reform movement's impact on classroom reading instruction with secondary students and explore the reading processes and strategies that play a part in comprehension that may not be getting addressed in response to pressure to perform on high-stakes testing. I also draw upon theoretical and empirical literature to establish the need for interventions that allow for reading comprehension and intertextual gains within the current paradigm of emphasis on improved scores on standardized tests. I posit that the use of Dialogic Pedagogy, combined with thematically connected texts,

has the potential to provide a scaffold for adolescents to transfer gains in comprehension to novel texts.

Chapter 2: A Review of the Literature

In this chapter, I will build on my theoretical framework to review literature related to concepts that shape reading comprehension and intertextuality, with a focus on adolescent readers in the English classroom. To improve the reading comprehension of adolescents in the materials that they read and improve the ability of adolescents to apply those gains to novel texts, I explored the utility of texts organized thematically and supported through a dialogical approach. The goal is to determine if the inclusion of a dialogical approach to reading print materials might assist in the transfer of reading comprehension and intertextuality gains to novel texts.

In the decades since the passing of *No Child Left Behind* (NCLB) legislation, standardized testing data and literacy research have demonstrated that many students in middle- and high schools struggle with reading (Biancarosa & Snow, 2004; Harris, 2007; Paul & Clarke, 2016; Snow, 2002; Snow & Moje, 2010). In spite of an increased recognition of the need for teaching reading comprehension strategies (Alvermann et al., 2013; Biancarosa & Snow, 2004; Ness, 2009), reading proficiency remains a ubiquitous problem in U. S. schools. This issue has been exacerbated by the current environment of high-stakes testing skewing the curriculum (Chubb & Ravitch, 2009; Nichols & Berliner, 2007; Toscano, 2013). This is particularly problematic in the context of the teaching of English in middle- and high schools, where a test-centric curriculum (Davis & Willson, 2015) has placed the emphasis on reading comprehension as that relates directly to performance on standardized tests (Nichols & Berliner, 2007). Reading comprehension strategy instruction presents a useful means of addressing this issue; however, it is important to understand other facets of reading that might contribute to comprehension

and the ability of adolescents to not only understand an isolated text but make connections between texts.

To begin exploring how thematically connected texts with dialogic support can aid gains in reading comprehension and intertextuality, I will consider the reform movement and the subsequent expectations in reading comprehension and the approaches that have been used to improve reading comprehension. From there, I will narrow the focus to unpack key constructs in the reading process in order to discuss how a better understanding of each of them can result in teachers being able to integrate these elements of the reading process to bolster the focus on comprehension strategies and the ability of students to apply what they have gained to novel texts. I begin with components of reading comprehension, and establish the promise held in texts which overlap in meaning. The review will end with a discussion of the ways enacting a dialogic pedagogy around units in English education that are centered on an essential question aid the semantic overlap necessary to transfer comprehension and intertextuality gains between texts.

The Reform Movement

One word that seems to imply change in education but seems itself resistant to that dynamic is reform in education. It is a rallying cry of political platforms in every election cycle. Problems in education are touted and credited with the potential to endanger the future wellbeing of our children and so reform is called for fervently in U. S. public schools (Berliner & Biddle, 1995; Boggs et al., 2018; Nichols & Berliner, 2007; Ravitch, 2014). It is a safe position to say one is for reform, for what misanthrope could stand and say that he or she is against reforming schools (Kohn, 2004)? However, it is

less clear as to what we are asking schools to reform from as the word itself implies a waywardness that needs correction. Bakhtin's (1981) theory of language is predicated on the notion that "each word tastes of the context and contexts in which it has lived its socially charged life; all words and forms are populated by intentions" (p. 293). Consider this powerful example of this theory in action: Students in the U.S. education system were once sent to "reform" schools if they demonstrated a pattern of bad behavior; institutions and businesses are reformed if they suffer from corruption or other ethical transgressions. From a Bakhtinian perspective, "the word in language is half someone else's (p. 293). Thus, it's crucial that we interrogate the implications of the words people employ. Those implications matter when thinking about education reform. I argue that the root for a call for reform is the perception of a social transgression that needs redressing, which then raises the question of what exactly is the base transgression which necessitates the persistent call for education reform. The alarm that pushes the reform movement in the United States is that our schools are failing in the mission to educate the students of the country (Berliner & Biddle, 1995).

An early alarm for failing schools can be seen in the 1960s when the world watched the Soviet Union launch the first human into space (Kurlansky, 2004). After demonstrating a technological superiority at the conclusion of World War II, the people of the United States in the 1960s were alarmed when their opposition in the Cold War had surpassed them in their technological capability. The result was a fervent recommitment to rigor in the public schools of America. The Elementary and Secondary Education Act, enacted in 1965, was an initial push into addressing the rigor that was seen to be lacking in the nation's schools (Nichols & Berliner, 2007).

Through the rest of the 1960s and the entirety of the 1970s, concern over the efficacy of the United States school system continued to grow, culminating in the publication of *A Nation at Risk* (Nichols & Berliner, 2007). The report by the National Commission for Excellence in Education (1983) proclaimed that the future of American society was in peril as standards in American schools were waning and that American students were ill-equipped to compete in the increasingly global economy. Though the allegations made in the report were refuted by many people with expertise and experience in research and education, the myth of failing schools was perpetuated in American schooling (Nichols & Berliner, 2007).

By the early 2000s, President George W. Bush advanced his framework for public education, *No Child Left Behind* (NCLB), which featured the use of standardized tests as a measure of accountability in America's public schools (U.S. Department of Education, 2001). Nichols and Berliner (2007) characterize NCLB as "probably the most invasive and complex piece of federal legislation on education in our nation's history" (p.7). The legislation gave a permanent place to standardized testing in public schools with a variety of associated high-stakes consequences for students, teachers, and administrators (Nichols & Berliner, 2007). Students faced consequences like lack of promotion or even graduation. While teachers and administrators could possibly receive bonuses for student performance on standardized tests, the more likely scenario was that they would face punitive measures like reassignment or termination for low scores (Duffy et al., 2008; Nichols & Berliner, 2007; Ravitch, 2014).

Since the passage of NCLB, additional legislation has affected the national landscape of public education, specifically the introduction of the Common Core State

Standards (CCSS). The CCSS are intended to introduce a set of “high-quality” standards in the areas of math and English language arts in order to address what is seen as stagnant performance by American students in public schools (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2009). At a time when states needed federal funds to alleviate budget shortfalls during the economic downturn in the United States, states were incentivized to adopt the CCSS by establishing eligibility for federal “Race to the Top” funds contingent upon adoption of CCSS by the state (Lipman, 2011; Toscano, 2013). The set of national standards do not establish a national curriculum, but they do introduce high-stakes testing more intensive than that under NCLB (Toscano, 2013).

Furthering the problems with CCSS is the idea that it is top-down measure of education reform. The CCSS were introduced and passed at a time when many state legislatures were out of session, allowing state boards of education to adopt the measures unopposed and effectively cutting off parents and communities from having a voice in the matter of their adoption. Toscano (2013) points out that “by truncating the time states had to assess the quality of the standards, Race to the Top effectively displaced the role of parents and local communities as decision makers in K–12 education” (p.416). In the place of those community stakeholders, private interests with concerns of global market competitiveness have moved in to education, whose interests might not align with the stakeholders they supplanted (Berliner & Biddle, 1995; Lipman, 2011; Nichols & Berliner, 2007; Ravitch, 2014; Toscano, 2013).

Historically, the teacher was characterized by an earnest desire to do right by the students in their classroom (Lortie, 2002) and as high achieving, talented, and well-

educated professional (Berliner & Biddle, 1995). However, the role of standardized tests have put a serious strain on teachers' noble intentions, as teachers are pushed to produce high test scores (Au & Gourd, 2013; Nichols & Berliner, 2007; Stewart & Boggs, 2016, 2019). In the area of English education at the middle- and high school levels, those scores are closely connected to comprehension (Au & Gourd, 2013; Davis & Willson, 2015). To better understand how we may untangle the needs in reading students have at that level, it would be beneficial to consider comprehension expectations in schools.

Comprehension Expectations

The vision of what it means to be a literate individual in society has shifted from what it meant a few decades ago. With the expansion of technology, the view of literacy as solely functional literacy, print-based alphabetic knowledge, is harder to justify; texts in the twenty-first century are multimodal and intertextual, where one text will point to another one (Hagood, 2009). Incorporating multiple literacies students possess (Gee, 2008), schools should be expanding what counts as reading (Alvermann, 2001). Expanding the concept of what counts as reading sounds practical and necessary considering the expansion of texts, what counts as text, and the manner in which people employ those texts – students might look proficient in one context and deficient in another (Hagood, 2009). While that may be the case, views of literacy as traditionally defined persist in schools. In one form or another, goals for literacy instruction are often broadly defined as students gaining the ability to read and write from various sources and for a variety of purposes (Landis & Moje, 2003).

Two foundational works in 21st century literacy, the RAND research study group (Snow, 2002) and Reading NEXT (Biancarosa & Snow, 2004), still place emphasis on

traditional literacy in secondary education, with a heavy investment in reading comprehension (Hagood, 2009). Comprehension's privileged place is observed from the first page of Reading NEXT, where teachers are exhorted to get beyond the basic literacy skills of elementary school by

teaching them new literacy skills: how to read purposefully, select materials that are of interest, learn from those materials, figure out the meanings of unfamiliar words, integrate new information with information previously known, resolve conflicting content in different texts, differentiate fact from opinion, and recognize the perspective of the writer—in short, they must be taught how to comprehend (p.1).

However, it is worth noting that the emphasis seen in national standards of reading comprehension give a skewed view of how students are able to comprehend texts, as the measures of assessing comprehension fail to account for the way students are able to make meaning in other literacies outside of an academic context (Alvermann, 2001; Hagood, 2009).

As instruction tends to follow assessment, the use of assessments that emphasize comprehension will dictate a curriculum that reinforces comprehension from print-based sources (Hagood, 2009). Comparison of students with reading difficulty to assessment norms within that curriculum then create a deficiency view of the student who is struggling. That deficiency is then assigned to either insufficient ability or the inadequacy of the spheres of his or her other literacies: home or community environments (Landis & Moje, 2003). According to Snow and Moje (2010), teachers who hold that deficiency view tend to emphasize, and potentially overemphasize, reading

comprehension strategies. However, Snow and Moje point out that the over-reliance on comprehension strategies may limit the student's broader understanding of the text. The student may wonder why he or she has to pull out main ideas from a text if he or she does not see a clear connection to a meaningful context outside the passage being read.

Yet being able to comprehend from text is still an important avenue to knowledge. While curriculum needs to incorporate the multimodality of texts and the broader relatedness of texts, instruction needs to target the acquisition of print skills (Hagood, 2009). Rather than rely on general comprehension strategies in the classroom, students who are struggling with reading often need targeted interventions in the underlying skills of reading (Snow & Moje, 2010). Yet instruction in those underlying skills and comprehension strategies is more likely to lead to sustainable gains in achievement if those interventions connect to the reservoirs of experience and prior knowledge that readers possess, connecting the reading to a larger framework of the world the reader knows (Luke et al., 2011). To better understand the constructs that may prove beneficial in aiding students who lack proficiency in the skills that undergird comprehension, I examined the literature as it related to vocabulary instruction, motivation, fluency, word recognition, and morphology for middle- and high school students before I discuss the transfer of gains, intertextuality, and the role of Dialogic Pedagogy in facilitating both.

Reading Comprehension

While the definition of what constitutes a text has expanded beyond traditional views of print-based materials, the focus of my efforts still lies with the traditional views of reading comprehension. In a cognitive process view, reading comprehension can be seen to involve the ability of the reader to recognize and words and their meanings, the

grammatical structures of the text, and the sentence semantics in order to comprehend the text (Singer, 2013). Reading comprehension within a text can be organized into a comprehension of the local passage of the text being read, the microstructure, and the macrostructure of the overall text (Kintsch & van Dijk, 1978). The microstructure and macrostructure form the textbase, “the semantic underpinning of a text” (Kinstch, 2004, p. 1274). In this cognitive view, the reader processes the words, placing the meaning in a frame of understanding for the clause or sentence in which they occur, and also connects that understanding to the overall meaning of the text, a general semantic outline of the text.

A problem does arise here from a social constructionist point-of-view. The meaning of the text could be viewed as a constant that does not change between readings. It does not acknowledge the body of experience that the reader views the text from as a mitigating influence on the construction of meaning from that text. I do not believe, though, that is entirely what a cognitive process view of reading comprehension entails. Kintsch and van Dijk (1978) work under the assumption that:

the surface structure of a discourse is interpreted as a set of propositions. This set is ordered by various semantic relations among the propositions. Some of these relations are explicitly expressed in the surface structure of the discourse; others are inferred during the process of interpretation with the help of various kinds of context-specific or general knowledge (p.365).

Here is acknowledged a role for prior knowledge and context in informing comprehension of the textbase of a text. As readers read a text, their own experiences, prior knowledge, and purpose in reading form the situation model, their unique

understanding of the text (Kinstch, 2004). The situation model, then, is of interest in concerns of comprehension for it is what students understood from the reading and can apply later in other situations.

Alvermann et al. (2013) further this point, stressing that a constructionist view and a cognitive process view of reading comprehension do not necessarily clash over how readers understand what they are reading. Citing Gee (2008), Alvermann et al. point out that

Comprehension requires transaction between the text and the reader's prior knowledge. If we include a reader's socially constructed ways of speaking, thinking, and behaving as part of prior knowledge, then these two views of the reading process become more complementary than contradictory (p.199).

For example, the reader who has raised and trained dogs would form a different meaning from the text of Wilson Rawls' *Where the Red Fern Grows* than a reader who has never been around dogs much, let alone had one as a pet. Both readers could likely agree on the macrostructure of the text, but the meaning for each would be slightly different. Each reader's past experiences help inform the meaning they take from the text, though both could agree on the details of the plot. Comprehension, however, extends beyond simple understanding of a single text. As one reads, metacognition and connections to other texts come into play in the process.

Metacognition

Metacognition is the ability of a person to be actively aware of their own cognitive processes and possess control over their function (Cubukcu, 2009). A social constructionist view would be that metacognition is the conscious ability to form

abstractions and control one's attention, a process which is achieved in adolescence (Fox & Riconscente, 2008). To put it simply, metacognition in reading represents a reader thinking about how they are thinking about a text.

Where metacognition plays a large part in reading comprehension is in the ability of metacognition to allow the reader to self-regulate his or her learning during the reading process. Examples of self-regulation processes are strategies like goal-setting, self-reinforcement, self-recording, and self-instruction (Zimmerman, 1994). Once aware of their own thinking about the reading, readers are able to determine appropriate goals for their reading, adjust strategies for reading and, determine what aspects are salient for their understanding. In a Vygotskian view, self-regulation is a process of an egocentric dialogue directing the reader's attention during learning (Zimmerman, 1994). The ability for students to be aware of and direct their learning is important in a higher level of comprehension, that of making connections to other texts.

Vocabulary Instruction

One approach to addressing the reading ability of students in secondary education and middle school is to focus in on vocabulary instruction. The focus is not without merit as students who comprehend less than 90% of the words in a page of text are considered to be at frustration level for reading where they experience a breakdown in comprehension of the passage (Davis, 1975; Gillett & Temple, 1994; Johnson et al., 1987; Morris, 2008). An avenue for improving the readability of texts for students would seem to be evident then: If students are able to recognize more words then the overall instructional and independent reading levels of students would rise as well.

The question then is how new vocabulary is acquired for students and how can that process be helped. One method that appears promising is that of learning words through context. The process of vocabulary acquisition can be seen through a knowledge-acquisition process aided by context clues and moderated by particular variables concerning the text (Sternberg, 1987; Sternberg & Powell, 1983). Sternberg (1987) illustrates the method with the following example.

Although for the others the party was a splendid success, the couple there on the blind date was not enjoying the festivities in the least. An *acapnotic*, he disliked her smoking; and when he removed his hat, she, who preferred “ageless” men, eyed his increasing *phalacrosis* and grimaced (p.91).

Sternberg and Powell (1983) hold that the words *acapnotic* and *phalacrosis* would be learned through the process of sifting relevant and irrelevant information from the text (*selective encoding*), forming a functional definition from the relevant cues (*selective combination*), and refining the definition by repeated exposure and combination with previous knowledge (*selective comparison*). The efficacy of the process is moderated by the frequency that the words occur in the language, the number of different contexts the word appears in, the importance of the word to understanding the context in which it appears, the helpfulness of the surrounding context for understanding, the number of other unknown words in the surrounding context, and the applicability of prior knowledge in forming a definition of the unknown word (Sternberg, 1987).

There is some dispute, though, over whether new vocabulary can be learned effectively from context (Share, 1995). Finn (1977) held that the course of natural language was not conducive to accurate prediction from context cues in a passage of text.

In an extensive study involving over 600 children from grades 4 through 8, Finn found that children were accurate in predicting the word that fit the context only 29.5% of the time; children were more likely to predict the wrong word semantically based on contextual cues than get the word correct.

Rather than rely on context for vocabulary acquisition, Share (1995) proposed that vocabulary was acquired through repeated successful recoding of new words until a point that the words became sight words, a process that he referred to as lexicalization. Share's self-teaching theory of vocabulary acquisition relies partially then on the frequency of the word, the number of occasions that a student would have to have a successful recoding of the word.

Frequency, though, presents a problem in secondary education as vocabulary moves away from commonly occurring, or frequent, words and relies more heavily on content-specific words to convey the meaning of the text (Beach et al., 2015; Beck et al., 2002, 2008). Beck et al. (2002) organized vocabulary into a three-tier system. The first tier consists of commonly occurring words in the language and in text that a child would have frequent opportunities to successfully recode a written word. The second tier, however, consists of words that pertain to academics and are not frequently used in speech common to the day-to-day use of language. Rather these words are encountered in formal educational settings. Even more so, the third tier of vocabulary as organized by Beck et al. (2002) consists of content-specific vocabulary that are not only bound in the realm of academics but are further restricted to a particular meaning within a specific content area. In the case of vocabulary acquisition at this level, direct instruction would be necessary to facilitate a student's ability to learn these tier two and three words (Beach

et al., 2015) which in turn affects a student's ability to comprehend the text (National Reading Panel, 2000; Stahl & Fairbanks, 1986). However, in the current climate of high-stakes testing, teachers are hesitant to expend instructional time for strategy instruction to help with comprehension in these types of texts due to the pressure they feel to achieve coverage of the course material so that students can perform well on tests (Ness, 2008).

Although the tier system does delineate the kinds of vocabulary students will need in formal education, it does not satisfactorily explain difficulties in reading and word knowledge that students in secondary education experience in English class. In other content areas, there is a large reliance on content-specific vocabulary for comprehension of texts used in those knowledge domains, yet the academic words of tier two only occur in 1.4% of the literature that forms the backbone of an English course (Coxhead, 2000). However, students in secondary education English courses still struggle with reading and word knowledge (Biancarosa & Snow, 2004; Harris, 2007; U.S. Department of Education, 2013).

Another way to view vocabulary acquisition, especially as it pertains to instructional approaches, is that of a pyramid (Stahl & Nagy, 2006) where the apex consists of direct instruction which requires intense instructional support and requires more time to accomplish to the base of a pyramid where students are able to generate new vocabulary independently. The idea, though, is less of a progression and more of concurrent processes that work in tandem to further a student's ability to acquire vocabulary and comprehend text. Students should simultaneously receive direct instruction on content-specific and/or high-utility vocabulary words, vocabulary acquisition strategies and independent word study, and exposure to rich oral and written

language (Stahl & Nagy, 2006). Classroom time to assist students in acquiring these strategies has diminished, though, as teachers feel the pressure for students to perform well on standardized tests at the end of the teaching term and modify classroom content to more closely resemble standardized tests (Au & Gourd, 2013; Ness, 2008).

Word Recognition

Word recognition is an important factor to take into account when considering reading ability of middle- and high-school students: poor word recognition impoverishes a student's ability to recognize vocabulary in text and can hamper comprehension to the point where the student is unable to extract meaning from the text (Perfetti, 1986). While word recognition is an area of study that is frequently studied at primary grades, there is not an abundance of research in this area at the middle- and high-school levels (Paul & Clarke, 2016). The underlying assumption is that by the time readers arrive at those later years in education, they typify the expected norm: Having accomplished learning to read, reading is a skill employed to learn (Chall, 1983). However, students are arriving at middle school and the secondary level without the requisite background in reading skills like word recognition to perform adequately in their studies (Biancarosa & Snow, 2004; U.S. Department of Education, 2013). Yet despite assessment data that tells us otherwise, curriculum for middle and high schools is written with the assumption that students at this level possess the requisite ability at word recognition for literacy tasks (Harris, 2007). Rather than expend time with necessary strategy instruction for word recognition, though, teachers feel pressured to adapt instruction in the classroom to mirror standardized tests (Au & Gourd, 2013).

This issue is exacerbated by the instructional knowledge that teachers at the middle- and high-school levels of teaching possess. Middle school teachers may find themselves with students who arrive from elementary school in need of help with word recognition skills but may not know how to help those students, as instruction for middle school teachers has focused on strategies for comprehending texts (Joseph & Schisler, 2009), though explicit instruction on a basic reading skill like word recognition helps adolescents transition from the stage where they may still be learning to read to reading to learn. Joseph and Schisler (2009) found that students benefitted from instructional interventions in word recognition that focused on sight words, phonics, and a combination of both.

Students who struggle with decoding multisyllabic words can attain proficiency in that area with systematic, intentional instruction (Archer et al., 2003). Bhattacharya and Ehri (2004) found that students from sixth to ninth grade benefitted in strategies focused on decoding, specifically on segmenting multisyllabic words into their constituent syllables. Working with 60 students in New York City ranging in grades from 6 to 10 who were identified as reading at the 3rd to 5th grade equivalency on the *Woodcock Reading Mastery Tests – Revised* (WMRT-R), Bhattacharya and Ehri separated students for 16 sessions of a remedial reading class into three test groups: students who would receive whole word instruction; students who would receive syllable segmentation and affix identification instruction, and a control. Students in the syllable analysis group were given 100 words divided into 25-word lists. Researchers provided instruction in syllable analysis strategy, modelled their use for the students, and provided feedback to students on their application of the strategies. Students in the whole word group were given the

same 100 words as the syllable analysis group presented in the same order but were instructed by having them say the whole word presented on a flashcard aloud and identify the meaning of the word, and when identified incorrectly, given feedback on the word and repeated the identification and meaning. Students in this group were timed and encouraged to try and beat their own time on subsequent readings of word lists. Students in the control group were given all pre- and post-tests but received no special instruction. As post-tests, students were given multiple measures to test their ability to identify multisyllabic words. Researchers gave the WMRT-R Word Attack subtest which assesses students' abilities to recognize pseudo words. Students were also given a word-learning test which required students to read aloud 16 regularly-spelled multisyllabic words, spell 8 of them by memory (dictated to the administrator) and transfer their understanding of the syllabic structure of new words (i.e., remembering syllabic information about the list word *professor* to correctly pronounce *krofessor* or *exercise* for *bexercise*). In addition, students were asked to identify subtle misspellings in multisyllabic words, spell and read a list of 12 new words aloud, identify and count the number of syllables, and circle the syllables in the word. While the whole-word group scored significantly better at identifying syllables in words than the control, the syllable analysis group scored significantly better than the whole word group in syllable identification, pseudo word reading, spelling, and transfer of syllabic information to analogous words like *krofessor*. Further, students who were reading on a 3rd grade equivalency performed significantly better at decoding a novel multisyllabic word the first time than the whole word group.

The training in syllable segmentation in the syllable analysis group allowed students to transfer gains to novel decoding and spelling tasks while there were no

significant gains in these areas for students in the whole-word group. Bhattacharya and Ehri hold that the decoding process requires readers to “apply their knowledge of graphophonemic and graphosyllabic correspondences to transform and blend spellings of words into pronunciations” (p. 344). Students who are able to recognize specific parts within a multisyllabic word first and then work to understand the whole word are more successful at recognizing the whole word correctly (Archer et al., 2003). Students who can decode effectively are able to combine what they know about the sounds letters are intended to make with recognizable syllables, allowing for correct pronunciation and recognition of the word. Adolescent students who were given multisyllabic decoding instruction were better able to transfer their gains in word recognition to novel situations (Bhattacharya & Ehri, 2004).

The eventual goal of successful decoding is that words in print would become part of a student’s sight-word lexicon in memory so that the time it takes the student to retrieve the pronunciation and semantic meaning of the word is comparable to the time it takes beginning readers to recall letter-name correspondences (Aaron et al., 1999). A quality of reading fluency is dependent upon the recognition of words with automaticity, that readers do not have to decode words but recognize them by sight. The benefit to reading with automaticity is that the less cognitive resources that a reader has to commit to word recognition, the more he or she has to commit to comprehension (LaBerge & Samuels, 1974).

While sight-word reading is undisputed as a necessity in reading, how a student arrives at a word becoming a sight word is disputed (Aaron et al., 1999). Aaron et al. (1999) maintain that sight-word reading is the result of the parallel processing of all

letters in a word simultaneously rather than the serial construction of pronunciation through decoding. For instance, reading the word “age” aloud is different than reading the word “ant.” The word “age” requires the reader to process both the beginning and ending letters in the word simultaneously to pronounce the word correctly. However, sight-word vocabulary is dependent on a base of successful decoding, and aided by the semantic density of the word (Aaron et al., 1999). Frequent successful decoding of a novel word provide the avenue for a word to become a sight word in lexical memory of a reader, while attempts to build vocabulary through direct sight-word acquisition have proven inflexible and ill-suited to the task of adding new words to a reader’s sight-word lexicon (Aaron et al., 1999). The process of moving to being a sight-word is aided by whether the word is semantically dense, adding unique meaning to the text rather than serving as a function of syntax (Aaron et al., 1999). Efforts to improve automaticity in reading could be aided through interventions in decoding for some readers and wide exposure to texts through continued reading (Aaron et al., 1999).

Morphology

Perfetti (2007) argued that literacy skills, including comprehension, are affected by the quality of word representations in memory. In outlining the features that established the lexical quality of mental representations, Perfetti included a binding constituent that linked together the orthographic, phonological, grammatical, and semantic features of words. Along this line of thought, Carlisle and Katz (2006) argued that sublexical knowledge could be viewed as a mechanism for strengthening lexical representations. This binding constituent that Perfetti describes could be seen as knowledge of morphology, which works at the lexical and sublexical levels (Bowers et

al., 2010). Morphology can be described as a system “by which smallest units of meaning, morphemes, combine to make more complex words” (Bowers et al., 2010, p.144). To put it more generally, morphology concerns how words are formed and how they fit into a syntactic structure to make meaning (Mokhtari et al., 2016).

Readers who possess solid morphemic knowledge have an advantage in decoding, vocabulary acquisition, and reading comprehension (Bowers et al., 2010; Mokhtari et al., 2016; Nagy et al., 1991). Increasingly, morphological knowledge is being linked to vocabulary acquisition and reading comprehension, as readers with poor morphological knowledge are likely to have poor reading comprehension (Mokhtari et al., 2016). Individual differences in students’ knowledge of morphology is significantly correlated to standardized measures of reading ability (Nagy et al., 1991). Additionally, the ability to distinguish roots from pseudoroots significantly correlated with reading ability through high school (Nagy et al. 1991). According to Nagy et al. (1991), good readers can recognize root morphemes inside of words and be able to distinguish it from segments that orthographically look like a root word but do not carry meaning in that context. For example, a student struggling with morphological knowledge might mistake “pump” as a root morpheme inside the word “pumpkin.”

However, instruction in morphology may be necessary as almost a fifth of the students at the high school level in the study by Nagy et al. (1991) had a substantial gap in their morphological knowledge. One key to implementing effective morphological instruction is determining what the underlying needs in morphological knowledge are (Goodwin, 2016; Mokhtari et al., 2016). For instance, some students may have a solid grasp of roots, yet need instruction and practice with affixes. Other characteristics of

sound morphological instruction are that instruction utilizes a consistent framework that scaffolds instruction and aids students in applying their morphological knowledge to reading (Mokhtari et al., 2016). Also, morphological instruction should build more high quality lexical representations by creating a network of words with morphological relatedness and illustrate how morphemes have different meaning depending on how they are used (Goodwin, 2016). For example, students should be able to see the relation of the word “super” to other words that utilize that morpheme, such as “superior” or “supervisor” (Goodwin, 2016). It is worth noting that students across most grade levels benefit in reading ability from direct instruction in morphology (Mokhtari et al. 2016)

Motivation

An area of interest for students to read is that of motivation for reading. Motivation refers to the individual’s impetus behind performing or participating in some mental or physical task (Jones, 2015). Students who engage in reading for the joy of the activity and the fruits of the reading are intrinsically motivated (Deci & Ryan, 2000). Students may also participate in reading due to the perception of its potential in aiding the achievement of goals, goals pertaining to underlying psychological needs of autonomy, relatedness, and competence (Deci & Ryan, 2000). Students may be motivated to read based on the perception that they enjoy the reading, it aligns with a domain that they identify with, the participation in the reading is useful for a purpose they find meaningful, and that the potential cost in participating in the activity is acceptable (Wigfield & Eccles, 2000). For instance, the motivation for a student to read a chemistry text carefully may be that the student aspires to be a doctor one day and recognizes that knowledge in this domain would be useful for achieving the goal.

Ivey (1999) found in case studies of struggling, average, and good readers in the middle school that perception of competence was a motivating factor for all three. The discriminating factor was that in the case of the poor and average reader, the context of the reading task was more closely associated with what Elliot (2005) termed performance-avoidance, where students are motivated by a desire to not display incompetence, something that can negatively affect motivation for future participation. The good reader's motivation could be considered mastery experience (Elliot, 2005) where the student participates in the event for the joy that the task brings, similar to Deci and Ryan's (2000) conception of intrinsic motivation. However, it is important to note that all three types of readers were motivated to read in situations where the text was easily within their ability range and pertained to individual interests (Ivey, 1999).

Students from a study involving 1,765 sixth-grade English language arts students in 23 different classes themselves have voiced their perception that having some control over the kinds of texts they read would increase their motivation to read in school (Ivey & Broaddus, 2001). These students expressed motivation to read when the reading was connected to contexts that were meaningful to them, and choice was allowed in the selection of texts for reading. After the consideration of choice, three other factors contributed to their motivation to read: self, environment, and people. When conducting a survey of past experiences with reading, Ivey and Broaddus found that the most positive examples were from experiences involving personal choice and the most negative examples were directly related to assigned reading. The matter is further complicated by the narrow selection of texts evident in the schools involved in the study (Ivey & Broaddus, 2001). Interest as a source of motivation is dependent on development from an

initial exposure to more sustained forms of interest (Hidi & Renninger, 2006), which emphasizes the need for an environment where a potential multitude of initial exposures could occur. The lack of availability of reading materials that held interest or provided useful information for their own inquiry noted by students in the study as well as teacher-selected texts hamper individual interest from serving as an effective motivation for reading.

Outside the context of the school, student motivation to read is “situated in and constitutive of social networks and identities (either developed, or developing)” (Moje et al., 2008, p.131). It is in these affinity spaces (Gee, 2004) that students form their various literacies from their sociocultural backgrounds. Reading outside of school, based on the input from the students themselves, fall into two general categories (Moje et al., 2008): Reading as situated in social network and reading that generates social capital. Reading for students in middle and high school helps place them within a social network of peers and can center around popular culture, peer interest, writing groups (informal and extracurricular), and family reading, those texts that are viewed by parents as important or reading that is shared with siblings (Moje et al., 2008). Students are motivated to continue to engage in these literacy practices outside of school as they help form and inform their identity development in areas like race/ethnicity and gender, relying on reading texts to provide information and avenues for self-improvement (Moje et al., 2008). Students recognize the utility of reading that pertain to their interests as a cultural tool for shaping and influencing their individual and collective lives (Ivey & Johnston, 2013).

Though students may possess intrinsic motivation to read outside of school in that it fosters relatedness to social networks, and provides utility in the formation of identity (Alvermann, 2001; Gee, 2008; Moje et al., 2008), teachers within a school environment are not without means to affect the motivation students possess in school-related reading. Teachers can develop motivation through establishing prior knowledge and conveying concepts that might not be within a student's prior knowledge, along with providing for choice and control, facilitating an understanding of how the text relates to the world that the students know, and providing space for social interaction around the texts (Guthrie et al., 2004). According to Guthrie et al. (2004), motivation can also be increased when texts are within a student's independent level, expectations are made clear about how to convey the meaning made from the text, students are aided in the application of comprehension strategies, and the provision of the physical infrastructure necessary to complete the task (i.e., providing time, place, and materials needed to allow a student to focus autonomy on another task like text selection). The push for increased motivation is the related increase in reading engagement, the interplay between motivation to read, transaction with the text, social interactions, conceptual knowledge growth, and the effective application of reading strategies (Baker et al., 2000).

Reading Fluency

Fluency can largely be seen as the reading of words accurately at an appropriate rate while maintaining correct phrasing and prosody and retaining meaning from the text (Archer et al., 2003; Rasinski et al., 2005). In terms of measuring all those concepts together, we often think of fluency in a reader as something we recognize when we hear it (Archer et al., 2003). For clinical purposes, reading rate and word accuracy are

considered acceptable standards in measuring reading fluency (Archer et al., 2003; Barth et al., 2009; Rasinski, 2004; Rasinski et al., 2005).

The interest in fluency is related to students' abilities to comprehend text as there is a strong correlation between reading comprehension and reading fluency (Archer et al., 2003; Rasinski et al., 2005), supported by both empirical and clinical research. Due to the nature of this particular reading issue, it takes students with fluency difficulty additional time to complete reading assignments. Archer et al. (2003) provide the analogy of a comparison of a fluent reader who reads 180 WPM and a student with fluency difficulty who reads at 60 WPM both receiving a reading assignment for homework that the teacher estimates will take two hours. While the assignment would take two hours for the fluent reader, it would take the reader with fluency difficulty 6 hours to complete.

Decoding, language comprehension, and naming speed largely explain individual differences in reading fluency among adolescent readers (Barth et al., 2009), where naming speed refers to the speed with which a reader can name serially presented letters or objects, typically measured in a rapid automatized naming (RAN) task. According to the study by Barth et al. (2009) with 527 struggling readers in the eighth grade, these three factors (decoding, language comprehension, and naming speed) accounted for 80% of the variance in reading fluency. Naming speed measured by RAN tasks most uniquely related to reading fluency for adolescents, accounting for 25% of the variance. This is an interesting change from what is seen with beginning readers, where decoding accounts for the largest amount of variance in reading fluency (P. G. Bowers, 1993).

The drawback to the unique contribution that naming speed to difficulty readers have in fluency is that there is disagreement as to what the RAN tasks are actually

measuring (Barth et al., 2009). Barth et al. (2009) points to multiple studies that present RAN tasks as measuring either retrieval of phonological codes, activation of orthographic patterns from text, general processing speed of the central nervous system, or performance of executive processes like response inhibition and dual task processing, where students have poor control over the cognitive processes that allow for phonological retrieval from memory. Without further consensus on what RAN tasks are actually measuring, there is no clear avenue for designing an effective intervention based on naming speed for fluency other than to have students read connected texts to create higher quality phonological and orthographic representations of text in memory (Barth et al., 2009).

In terms of intervention for the other two factors, decoding and language comprehension, there are two general principles to guide intervention. First, readers must have strong word-mapping skills, grapheme to phoneme, in order that even infrequent word exposure would allow for committing vocabulary to memory (Barth et al., 2009). Second, teaching strategies to help students acquire vocabulary will aid comprehension which will aid fluency as fluency is influenced by one's ability to process language for meaning (Barth et al., 2009).

More specific interventions are present in the classroom that help improve fluency for adolescent readers. Choral reading, where students read passages together aloud, helps students who struggle with reading fluency (Archer et al., 2003; Rasinski et al., 2005). In a similar fashion, assisted reading, where students listen to a recording of someone else reading the same text that they are reading silently, can help improve a student's reading fluency (Rasinski et al., 2005). Partner reading and guided reading

follow in the same vein for helping students with difficulty in reading fluency improve in that ability (Archer et al., 2003; Rasinski et al., 2005). Repeated reading has shown to be particularly effective in improving reading fluency (Archer et al., 2003; Rasinski et al., 2005), especially when adolescents view the rereading of the text as part of a performance, like in reciting a poem or song lyrics. However, reading fluency can also be furthered by the wide-reading of independent level texts (Rasinski et al., 2005).

The end goal is that of automaticity, the easy retrieval from memory of linguistic information so that students can allocate more cognitive resources to comprehension (LaBerge & Samuels, 1974). With all concerns over the ability of readers to be able to apply the vocabulary acquisition, word recognition, and comprehension strategies during reading, the reader needs to have enough automaticity to allow for the cognitive demands to apply those strategies. Students need a way to reduce the cognitive burden during reading so that they can apply vocabulary acquisition, word recognition, and comprehension strategies effectively. Teachers would benefit from a means to select and organize texts in the classroom which presents a means to reduce the cognitive burden and facilitate the transfer of comprehension gains to novel texts.

Intertextuality

The nature of comprehension deserves some examination. The question arises as to what the goal of reading is in the secondary English classroom. The effect of standardized testing has emphasized isolated reading passages that closely reflect the types of questions seen on standardized tests (Fecho, 2011; Ness, 2008; Stewart, 2012). Yet a literate member of society is one who can apply the literacies he or she possesses, of which reading may be one, to manage the connectedness of texts and world in an ever-

changing society (Boggs et al., 2018). Comprehension of a text in isolation serves little purpose in service to the reader unless he or she can employ understanding of the text to another situation. Kintsch refers to this as encapsulated knowledge (2004). The formation of a situation model that is isolated to the text from which it was formed has limited utility in service to later comprehension. Kintsch illustrates this point with the example of a student in calculus who can answer the questions at the end of the chapter in the calculus textbook and on final exams but struggles to use the knowledge when faced with an engineering problem. The desired outcome of reading comprehension is that the situational model formed is conducive for the knowledge gained to be applicable to a later and novel situation, that a reader can see the connectedness between one text and another. Here I consider how the reading of one text is connected to the reading of another text.

It is worth looking at what good readers do when reading a text when considering student ability to make intertextual connections. Students who are good readers make more intertextual connections and better syntheses of the texts in later recall and composition (Bråten et al., 2013; Hartman, 1995; Reynolds & Perin, 2009; Spivey & King, 1989). In working with 65 tenth-graders from secondary schools in Norway, Bråten et al. (2013) sought to understand how word recognition, motivation/self-efficacy, and reading pattern (unique and relative) contributed to a student's learning and comprehension across multiple science texts. Five informational texts were used on a health issue concerning sun exposure that contained three different perspectives: one neutral on the issue and two on each opposing side of the issue. The participants read the texts online using the software *Read 2.0* which allowed the researchers to track the

sections of each text participants were reading. With the help of the software, the researchers were able to black all sections of each text except the current section the students were reading and record the time that each student spent on the viewable section and the pattern of switching back and forth between the different texts observed in each participant. Multiple-choice tests were given for each passage to test comprehension of the passage and three essay questions were administered to check for intertextual connections. The researchers found that the students who spent less time on individual sections of the texts and switched between the multiple texts frequently had better comprehension of the individual texts and produced a better synthesis of the texts after reading. Readers who make a habit of referencing other texts to inform their situation model of a text demonstrate better comprehension and synthesis of sources than peers who have not adopted that habit (Bråten et al., 2013; Mateos et al., 2008; Mateos & Solé, 2009). Students who can efficiently select, organize, and connect information from a text in their situation model are more likely to make intertextual connections that are relevant and closely-related to the salient information present in the text being read and later with novel texts (Spivey & King, 1989).

Present in those connections made between texts are the connections to the texts of readers' lives and reservoirs of experience. Readers may need help in determining those facets of prior knowledge useful in assembling a schema that would serve best to comprehend a novel text. Hartman (1995) studied the connections students proficient in reading made when reading multiple texts that connected thematically. Students were asked to read multiple selections in a sitting and think aloud when they made connections with something else they knew. What was found was that students did make the

connections to other texts that were included in the study, connections that Hartman labeled endogenous. Any connection made to knowledge outside the research setting, knowledge that was unique to their experiences and knowledge gained outside the current setting, was termed an exogenous connection. It is worth noting that every student that participated in the study made several exogenous connections throughout the readings. In fact, the more that students struggled in reading, the more prevalent the exogenous connections became for the students. The more students tried to make meaning of something they couldn't understand, the more heavily they pulled from the prior knowledge they had obtained in their lives outside the current instructional environment. Students who struggle with comprehending texts and making connections to other texts lack development in the skill of organizing information around a theme to aid comprehension and incorporating that knowledge into their situation model (Spivey & King, 1989).

Transfer and Dialogic Pedagogy

Considering the difficulty struggling readers face in applying reading strategies during the reading process and organizing prior knowledge and new information, a scaffold is necessary to assist struggling readers in assembling and organizing their knowledge to aid comprehension and transfer those gains to novel situations. Kintsch (2004) stated

To make knowledge acquired from texts usable in novel situations, it must be actively linked to semantic retrieval cues, which is not an automatic process but one that requires strategic action and effort on the part of the reader/learner (p. 1275).

Readers who struggle with comprehension and connecting the knowledge to new situations and texts need assistance in using their reservoirs of experience strategically to assemble a situation-specific schema which facilitates comprehension. Instruction in the classroom can hinder the assembly of a schema as teachers often simplify or neaten content to make it easier to perform on tests but fails to reflect the ill-structured and complex nature of the texts and their connection to the world (Spiro et al., 1987). Spiro et al. maintain this simplification hampers future use of schema and acquired knowledge. Readers benefit from multiple diverse cases that allow for the creation of a schema that feature multiple connections between cases which partially overlap in many different dimensions.

While working with high school students, Spiro et al. (1987) found that texts organized into their own discrete units organized by a distinct theme unique to each unit produced better test scores on classroom assessments than students who were given the same texts and allowed to make connections between the texts as they could. However, outside of prewritten assessments, the students who were asked to make their own connections were much more successful in applying what they had read to novel situations. Spiro et al. maintain that the key in designing units is to avoid making the connections so linear that the schema formed is inflexible and stymies transfer to new texts, but not to make the texts too disparate in focus so that students fail to make the connections between overlapping themes or information in the texts. The key is to prevent readers from assuming a single point of view in analyzing texts but push them towards as many ways to view texts as possible allowing for multiple access routes to knowledge in long-term memory.

The organization of texts is key in English education as it relies on the macro level of understanding text; that is the text as a whole and its connection to other texts (Alvermann et al., 2010). The inclusion of multiple genres within the content area and frequent need for intertextual connections present unique disciplinary practices within English education. Students in an English education classroom should need to recognize the knowledge they possess that is relevant to a novel text and build multiple connections between the text, other texts, and the texts of their lives. Spiro et al. (1987) use the analogy of a landscape to explain how comprehension in ill-structured domains like English benefit from the ability to assemble flexible schema that incorporate multiple perspectives. No single vantage point of a landscape reveals all of it to the beholder; it has to be explored from multiple perspectives to better understand it. Organizing the texts of the classroom into thematic units centered on an essential question or binding theme can act as a scaffold to help students accrue multiple perspectives into an inquiry informed by their own experiences and knowledge (Smagorinsky, 2008). Such thematic units, when tied together with a course-long binding theme or essential question can facilitate the overlap needed for students to build multiple connections across all texts of the course and their own reservoirs of experience to allow for multiple means to recall and apply their knowledge (Applebee, 1996).

An approach to teaching English rooted in Dialogic Pedagogy supplies a means to how the present environment can be utilized by students to facilitate the creation of situation-specific schema and improve comprehension. Dialogic pedagogy is based on Bakhtinian dialogism (Bakhtin, 1981) which includes the conception of words as live speech in an ongoing dialogue with our own cultural experiences that we bring to bear to

understand other's words. As a pedagogical stance, dialogic pedagogy is "a teaching stance that embraces tension, values questioning, considers multiple perspectives, challenges hierarchical structures, and attends to the mutual shaping that occurs in classrooms when learning is viewed as a process of becoming" (Stewart, 2017). A dialogical stance in teaching in the English classroom relies on inquiry, critique, and dialogue for learning to occur (Fecho, 2011). Inquiry in that students are seeking to answer questions that rely on both the texts of the classroom and the texts of their lives, and critique in that students are encouraged to make meaning based on the transaction of the texts in the classroom.

Multiple perspectives are supplied through the inclusion of the students' experiences in transaction with the texts of the classroom to form meaning. The use of the student's life situates the application of disciplinary knowledge in the current social environment of the student; he or she is asked to form meaning based on the connections, meaning, that is to be made between the student's reservoirs of experience and the texts of the class. Students find that when the text of their lives comes into dialogue with the texts of the classroom; previous held beliefs are put into "wobble" and new meaning is formed from the transaction (Fecho, 2011). A closed system where only one interpretation of the text (Spiro et al., 1987) is avoided as a dialogical approach acknowledges the new text that is formed through transaction of the texts of the class and the text of the student's life.

A dialogic pedagogy provides both a means and the material for students to develop literate practices in the English classroom. The approach provides a true education in that the student walks away from the class with an understanding of both the

content and the process of making meaning within texts. As Dewey (1916) pointed out, “[education] is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience” (p. 82). Dialogic pedagogy affirms the ability of students to make meaning through the use of their own experiences and social environment but also empowers them to take direction over the application of that meaning in future experience.

In chapter 3, I provide an outline for this study that is designed to explore the utility of dialogical approaches to reading instruction and the use of thematic connections to facilitate comprehension and intertextuality by providing a scaffold to help readers assemble a situation-specific schema that aids the transfer of knowledge between texts.

Chapter 3: Methodology and Methods

Methodology

The purpose of this study is to determine if the inclusion of a dialogical approach to reading print materials might assist in the transfer of reading comprehension and intertextuality gains to novel texts. This exploration serves the larger purpose of considering the utility of applying dialogical pedagogical approaches to reading comprehension instruction, so that schools and teachers might better support adolescent readers. The overarching theoretical framework that guides this study flows from the concept that knowledge is constructed socially and attends to the ways in which knowledge is constructed through collaborative, student-centered approaches to learning. Central to this framework is the notion that “no living word relates to its object in a *singular* way” (Bakhtin, 1981, p. 276, emphasis in original). Words and utterances take “meaning and shape in a socially specific environment” (p. 276). Within that framework, this study employs the cognitive flexibility theoretical model of reading (Spiro et al., 1987) which argues that students form situation-specific schema for reading tasks in order to comprehend the texts. In short, both the social context and the reading situation influence a reader’s transaction with a text.

This perspective provides a mechanism for examining the ways readers use situation-specific schema to draw on concepts that are formed over time through social interaction in a specific time and place (Vygotsky, 1987) at a finer grain of magnification. The perspective also accounts for the ways that readers utilize concepts to form the schema as they transact with texts and form new meaning. This transaction is the relationship of reader and text during the reading act, the manner in which both affect

each other in the generation of a new text (Rosenblatt, 1995). To produce this transaction in the classroom, a dialogical pedagogy seeks to draw on the student's wealth of conceptual knowledge to form the schema which the student utilizes to transact with the text, bringing the reservoirs of experience into dialogue with the texts of the classroom in "a process of becoming" (Stewart, 2017, n.p.). This process of becoming, a transactional affair, is aided by the use of essential questions that frame the dialogue around larger ideas that pull from multiple texts to form an answer (Fecho, 2011).

Teachers in the general secondary English education classroom face a class where it is likely a number of students read below grade level (Biancarosa & Snow, 2004; National Assessment of Educational Progress [NAEP], 2015, 2019), yet they are not prepared in reading intervention beyond reading comprehension strategies (Harris, 2007; Joseph & Schisler, 2009; Snow & Moje, 2010). The era of high-stakes testing has created the potential for teachers in the secondary English classroom to overemphasize the focus on reading comprehension strategies (Brevik, 2019; Snow & Moje, 2010). My experiences as a classroom teacher and my theoretical orientation tell me that such strategies often push students' interests and lived experiences to the margins in ways that I argue can reduce the effectiveness of those strategies. In response to this conundrum, I embarked on this project to explore how providing dialogical support with thematically connected texts may assist in improving comprehension and intertextual connections. In order to answer the research question below, I employed quantitative methods in an experimental design (Trochim, 2006; Vellutino & Schatschneider, 2011) to collect data reading comprehension and intertextual connections.

For adolescent readers, how might a dialogic approach influence reading

comprehension and intertextual connections using thematically connected texts as compared to unconnected texts or thematically connected texts without a dialogic approach?

Methods

In this section, I will articulate the tools and methods of analysis I utilized to answer how conceptual overlap established by an essential question between thematically connected texts may assist in improving reading comprehension and forming intertextual connections. For this study, thematically connected refers to a larger theme that is present in all passages. For instance, J.D. Salinger's *The Catcher in the Rye* and John Knowles' *A Separate Peace* share a thematic connection of a young man dealing with the loss of innocence when confronting the realities of the world. In contrast, Isabel Allende's *The House of the Spirits*, which explores freedom and femininity in a persistent patriarchy, does not have an overt thematic connection to Anthony Burgess' *A Clockwork Orange* in which the author explores the value of free will and the natural development of a moral conscience. *The House of the Spirits* and *A Clockwork Orange* share some similarities like a first-person narrator and the inclusion of fantastical elements, yet any thematic link drawn between the two texts would likely be tenuous at best.

Overview of the Study

The study used an experimental design to compare three groups on two measures: reading comprehension and intertextuality. Participants in ninth and tenth grade were randomly assigned to one of the three groups: A Thematically Connected Texts (TC) group, a Thematically Connected Texts with Dialogic Support (TCDS) group, or a Control. As I will describe below, I used the Nelson-Denny Reading Test (NDRT) to

ensure these groups approximated normality for reading ability. Then, I conducted the Thematically Connected Dialogic Pedagogy (TCDP) round of testing to collect data.

In the TCDP round of testing, the TC group read two texts that are continuous excerpts from the same source text, and a transfer text that is thematically connected to the first two. The TCDS group read the same texts as the TC group but was asked an essential question prior to reading passages. In line with a dialogical approach, these essential questions were designed to be open-ended, intellectually engaging, and called for higher-order critical thinking. The Control group received three passages where none are continuous passages from the same text or share any overt thematic connections, and participants in this group did not receive the support of an essential question.

In each group, participants were asked four comprehension questions following the reading of each passage and an open-ended response question at the conclusion of the reading that prompted participants to use the texts read and their own experience as evidence in constructing their answer. My outcome measures are the performance on reading comprehension questions and the number of intertextual connections made in their answer to the open-ended response question.

Construction of the TCDP Assessment

Prior to initiating this study, I had to first construct the instruments for the Thematically Connected Dialogic Pedagogy (TCDP) assessment (see Appendix A). The TCDP was used to measure participants' abilities to transfer reading comprehension and intertextuality gains to novel texts. This was a lengthy and involved process that took months to complete. Through the spring and summer of 2018, I searched for texts that teachers would typically use in general English classrooms that had clear thematic

connections. Additionally, each potential text had to be evaluated for suitability based on the text variables, readability measures, word and syntactic complexity, and cohesion variables. I discuss these criteria in the subsections below.

Text Variables

As a means of assuring internal validity, the texts were measured on a number of variables to ensure that participants across conditions were reading passages of comparable difficulty. The texts were selected initially by using each text's Lexile rating, a score derived by the text's mean sentence length and a common logarithm of word frequency (Stenner et al., 2006), as a means to gather texts of comparable difficulty. The texts were selected from a Lexile range which placed all passages within +/- 50L of 750L. Passages from those texts were analyzed using the Coh-Metrix Web Tool (Cohmetrix.com, 2017) to ensure that passages were of similar readability, word and syntactic complexity, lexical diversity, and cohesion. McNamara et al. (2014) used a random selection of 3900 passages from three domains (Language arts, social studies, and science) from the Touchstone Applied Science Associates (TASA), Inc. set of texts to establish norms around grade level bands. These norms for language arts and the output variables generated by the Coh-Metrix web tool were used to gauge whether texts were of comparable difficulty for use in the study.

Readability Measures. The readability measures (Table 1) used were Lexile, Flesch Reading Ease, and Flesch-Kincaid Grade Level. The Flesch Reading Ease (FRE) is a score from 0 to 100, where 100 would be easiest to read, based on the average number of syllables per word and the average number of words per sentence. That score is used in a separate formula to approximate a grade level equivalence for a text, the

Flesch-Kincaid Grade Level. Using MetaMetrics' Lexile grade level equivalency chart (2017) and the Flesch-Kincaid Grade Level scores, passages were kept approximately to a fourth-grade level. These were compared to the 4-5 grade band norms reported by McNamara et al. (2014). It is worth noting that there are concerns over how accurately readability measures gauge the difficulty of a text for a particular grade, though the readability measures I am referencing are most accurate at the grade levels I am considering (Cunningham et al., 2018). However, I am not simply trying to match the text to a reader. Instead, I am considering how well texts compare to each other, I believe the measures are worth some consideration. The texts I chose (See Table 1 below) all fall within three standard deviations of the norm, showing that on these three readability measures there are no significant differences for the passages.

Table 1

Passage Readability Measures and Norms

Passage	Lexile	Flesch Reading Ease
Excerpt (a) from <i>The Handmaid's Tale</i> by Margaret Atwood	750	82.137
Excerpt (b) from <i>The Handmaid's Tale</i> by Margaret Atwood	750	83.553
Excerpt from <i>The First Part Last</i> by Angela Johnson	790	86.955
Control passage 1 – Excerpt from <i>Dune</i> by Frank Herbert	800	90.939
Control passage 2 – Excerpt from <i>The Schwa Was Here</i> by Neal Shusterman	790	93.59
Control passage 3 – Excerpt from <i>Water for Elephants</i> by Sara Gruen	730	81.358

Word and syntactic complexity. Word and syntactic complexity are often measured by the proxies of average number of syllables per word and number of words per sentence, as in the Flesch Reading Ease and Flesch-Kincaid Grade Level readability formulas I use. The Coh-Metrix web tool (2017) calculates these measures, as well as a measure of lexical diversity, type-token ratio. Type-token ratio (TTR) represents the ratio of unique words (type) per total number of occurrences of that word (token) in the passage. The fewer instances of each type in a passage, the closer the ratio approaches one and the more demanding the text becomes to comprehend based on the number of unique words to be decoded and incorporated into the discourse (Cohmetrix.com, 2017). On measures of word and sentence length, the passages are within a standard deviation of each other and within two of the norms for the grade 4-5 band reported by McNamara et al. (2014). On the type-token ratio, no passage had a ratio outside three standard deviations of the norm (See Appendix E, Table E1).

Cohesion Variables. Referential cohesion is the extent to which content words and ideas overlap in sentences throughout the text (Graesser et al., 2011). In order to ensure that the passages used were comparable in terms of how well they relate conceptual information, I considered two measures for noting the cohesiveness of each passage: argument overlap and latent semantic analysis (LSA) of adjacent sentences (See Appendix E, Table E2). Argument overlap is a measure of coreference in adjacent sentences. If adjacent sentences contain the same noun, or variation of that noun or pronouns (e.g. “cat”/ “cats”; “The doctor” / “she”), then the sentences are more cohesive (McNamara et al., 2014). When there is little argument overlap between sentences, there

are more gaps for possible comprehension issues for readers. Two variables were included for argument overlap: argument overlap in adjacent sentences (AO1) and argument overlap in all sentences in the passage (AOa). LSA measures how much semantic overlap there is between adjacent sentences, indicating how conceptually similar they two are (Cohmetrix.com, 2017). The measures reported here consider how conceptually related adjacent sentences are (LSASS1) and each sentence to every other sentence in the passage (LSASSp) on a scale of zero to one, where zero is low cohesion and one highly cohesive. On all measures of cohesion, passages are comparable to the 4-5 grade band norms reported by McNamara et al. (2014).

The final step in constructing the experimental conditions was creating the Thematically Connected Dialogic Pedagogy Test Packet (Appendix A) and Thematically Connected Dialogic Pedagogy Test Administration Script (Appendix C). The test packet included: the passages to be read; reading comprehension questions seeking explicit information; and the reading comprehension questions seeking inferential information. Each test contained four questions. I constructed the first two questions in a way that allowed participants to answer based on information explicitly stated in a passage. The second two questions were constructed to see if participants could draw inferences supported by the passage. In short, these two questions could be answered with any specific reference to a passage.

Participant Selection & Sampling

To examine how a dialogical approach used in conjunction with thematically connected texts may aid adolescent readers with comprehension and making intertextuality connections, I worked with ninth- and tenth-grade students in the general

education English classroom setting. I chose ninth and tenth grade as mid-point between the start of middle school and the conclusion of high school so that some insight could be provided either way between a younger group of students or students who are about to complete high school. The participants came from a county located in southwest Virginia.

As I wanted to work with a group of participants that closely reflected the range of students likely to be present in an English classroom, I chose inclusion criteria that would include as many participants as possible. Participants to be excluded were students who were identified as English Learners as their difficulty with comprehension may be conflated with language acquisition or students who were already identified as needing reading modifications for testing as I would be unable to provide those accommodations and the scores could potentially skew the data. As I did not have access to student records directly, I contacted the school with the exclusion criteria and requested them to notify me of the student ID numbers who did not meet the inclusion criteria. The criteria for participant selection are as follows:

Inclusion Criteria

1. Students enrolled in a ninth-grade or tenth-grade English class
2. Students of any gender, race, or socioeconomic status (SES)
3. Students whose parents will consent for their child to participate in the study
4. Student assent to participate in the study

Exclusion criteria

1. Students who have previously read the passages used in the experiment
2. Students who are acquiring the English language
3. Students who are identified as needing reading accommodations for testing

To protect participant confidentiality, no one on the research team had access to any identifying information of the participants. For the research team, all participants and students who declined to participate were known by their student identification number only. The school maintained the list of student names that paired with identification numbers.

Since I reached out to a school in the nearby area who was open to having students from their schools participate, the sampling represents a convenience sampling. In sampling, I am not looking to ensure any one demographic group is represented in the study but am looking to generalize results to the larger population of students in general education English classrooms.

The study was submitted to Virginia Tech's Institutional Review Board prior to contacting the school district, principal, or faculty members of Radford City Schools in southwest Virginia. Data collection took place during school hours on school facilities in participants' English classroom or similar setting.

Sample Size, Power, and Precision

I used G*Power to do a power analysis, which indicates the necessary sample size for a one-way analysis of variance (ANOVA) with three groups for an effect size of $f = .20$ is 246 participants. This is with a power of .80 and an σ error probability of .05. At the site where I conducted the study, 249 initial participants were asked to participate which represented the entirety of the ninth and tenth grade class which met the inclusion criteria. Due to students who did not assent to participate and the attrition of participants who were not present for all testing, the final sample size was 184 participants. Though this did not match the originally sought number of participants, the sample size is large

enough for an effect size of $f = .23$ which does allow me to speak about the utility and practical application of significant results (Kirk, 1996).

Measures

There are three measures in the design of the study. The first measure (reading ability), however, was employed in a pre-experimental phase. In this phase, participants in the study were given the Nelson-Denny Reading Test (Brown et al., 1993) to assess reading ability levels of each participant and to ensure the reading abilities of the participants randomly assigned to each condition are of comparable ability and normally distributed. During the experimental phase, I collected measures of reading comprehension and intertextuality as outcomes. I describe each of these measures in the sub-sections below.

Nelson-Denny Reading Test

The Nelson-Denny Reading Test (Brown et al., 1993) is a standardized measure of reading ability normed for high school students that can be given in one group. The test can be given in a large group in under an hour, and I had experience in administering the test prior to this study. The Nelson-Denny was used to provide individual reading ability scores for participants to check the assumption of homogeneity of variances between groups prior to running an ANOVA. The test consists of:

1. A timed vocabulary section
2. A timed reading comprehension section
3. A reading rate measure incorporated into the reading comprehension section

Raw scores provided by the test can be converted to grade equivalencies and percentile ranks. Considering validity, when used as a measure of general reading ability and an estimate of student achievement in coursework, Nelson-Denny Reading Test scores

correlate with students grades in institutional courses (Murray-Ward, 2014). Using Reliability estimates for the test on three components are reported as vocabulary = .89, reading comprehension = .81, total test = .90, and reading rate = .68 (Murray-Ward, 2014).

Reading Comprehension

Reading comprehension was measured by four comprehension questions that were given following each passage participants read. In each set of four questions following the passages, two questions focused on explicitly referenced information in the passage and two questions required participants to reference implicit information from the passage.

Intertextuality

Intertextuality was collected through an open-ended response question asked at the conclusion of reading all the passages which prompted participants to use the texts and their own experience as evidence in constructing their answer. Responses were written by participants on the space provided at the end of the test answer sheet (see Appendix A).

Consent/Assent Procedures

To obtain consent from school to conduct the study, I contacted the principal and director of instruction and curriculum of the school district mentioned in the sampling section by email with an attached Word document providing an overview of the proposed study (Appendix F), which detailed the purpose of the study, the potential benefits, and a synopsis of how the study would be conducted. Then, I met with director of instruction and curriculum for the school district and described the benefits to the school system – reading ability measures for students in the high school who participate and reviewed the

participant selection criteria and provided copies of the parent information sheet (Appendix G). Additionally, I provided the student informed assent forms (Appendix H) I would use in classes to acquire the assent of students who would participate in the study. After receiving permission to proceed from the director of instruction and curriculum and meeting with the principal of the school and the teachers who would be participating in the study, I arranged the specifics of testing dates and times (Appendix J). The principal provided a list of student identification numbers and the teachers (all names are pseudonyms) whose classes and periods they were in. Student identification numbers were used by researchers to identify participants and had no means to identify students beyond those numbers in order to preserve participant confidentiality. On April 12, I visited every English classroom of the classes that would be participating in the study to obtain student assent in accordance with Institutional Review Board (IRB) procedures.

Process for Creating Experimental Groups

In the pre-experimental phase, I administered the Nelson-Denny Reading Test (NDRT) to provide a measure of reading ability for each individual. This test was used to ensure that reading levels of the participants within each group were comparable. Students who opted out of the study and were not taking the test were provided with an alternate assignment by the classroom teacher. The NDRT was administered to participants in their regular English classes with the teachers present to help maintain a proper testing environment. The NDRT takes less than an hour to administer, fitting within the normal bounds of a class period at the school.

Prior to administering the NDRT, I met with Heather Turner to provide her with training on the administration of both the NDRT and TCDP tests with participants. To

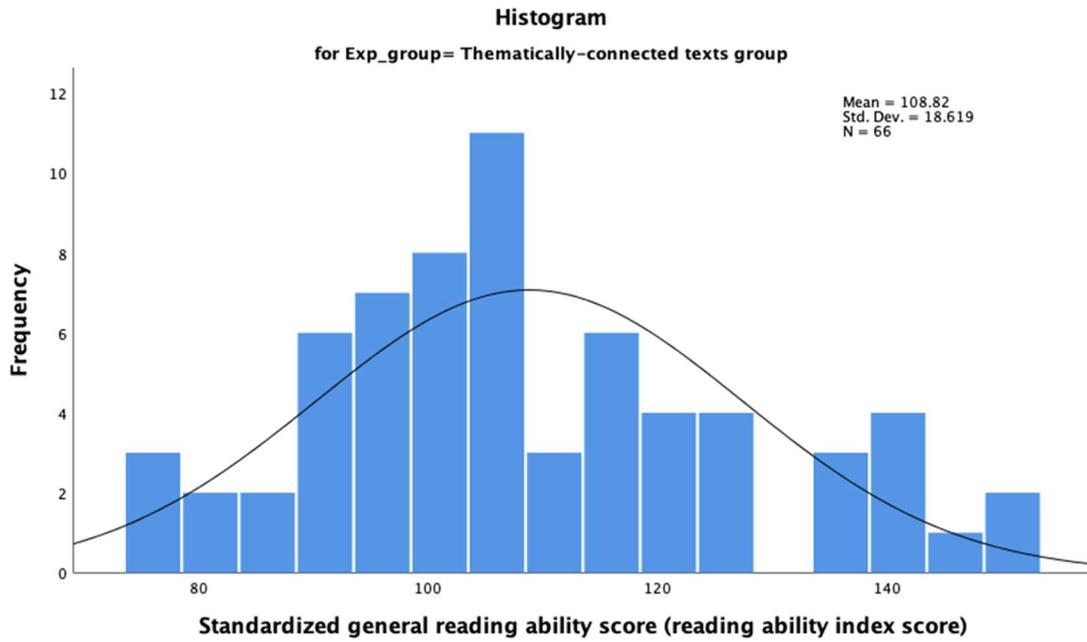
ensure fidelity of test administration, Turner observed me administer the test to the first two classes and then I observed her administer it to the final two classes on the initial day of testing.

Following the administration of the NDRT, I was able to take the list of participants who had completed the NDRT and randomly assign them to one of the three experimental groups of the TCDP testing. To accomplish the random assignment, I entered all the participants into a spreadsheet and used RANDBETWEEN function combined with the RANK function to evenly and randomly assign participants to a group.

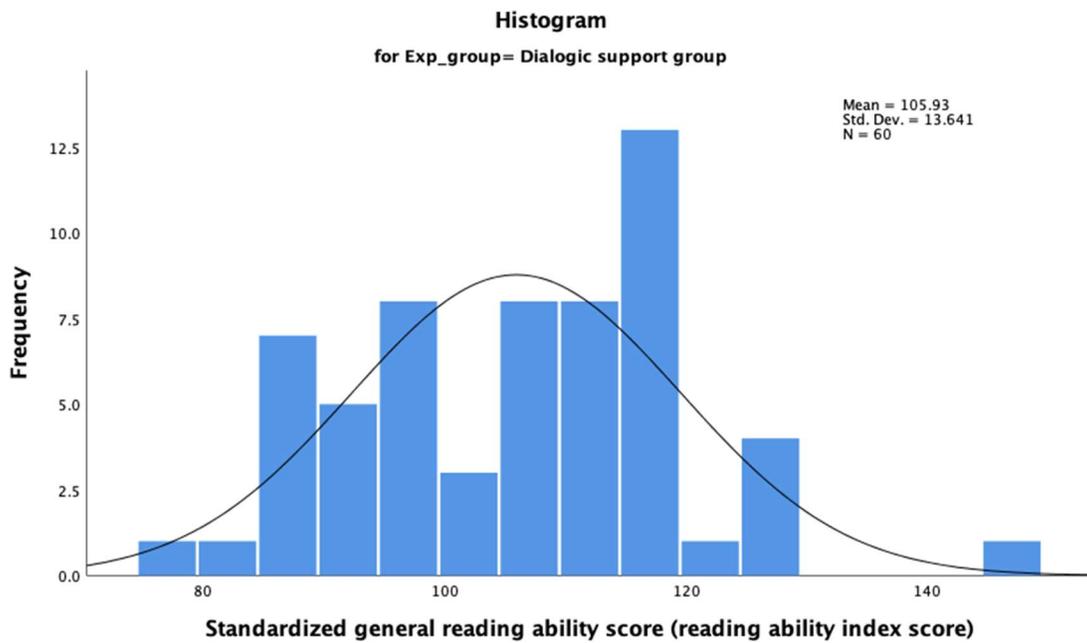
Additionally, I used the NDRT key to score raw vocabulary and reading comprehension scores and entered that data into the test publisher's online calculator to calculate standardized scores on those measures and a general reading ability score, an index of the combination of the vocabulary and reading comprehension standardized scores. These NDRT scores indicated that the reading abilities of all participants approximate a normal distribution of reading ability. The histograms in Figure 2 (see below) show that the reading abilities of the participants each group follow the expected curve for normal distribution.

Figure 2
NDRT General Reading Ability Histograms

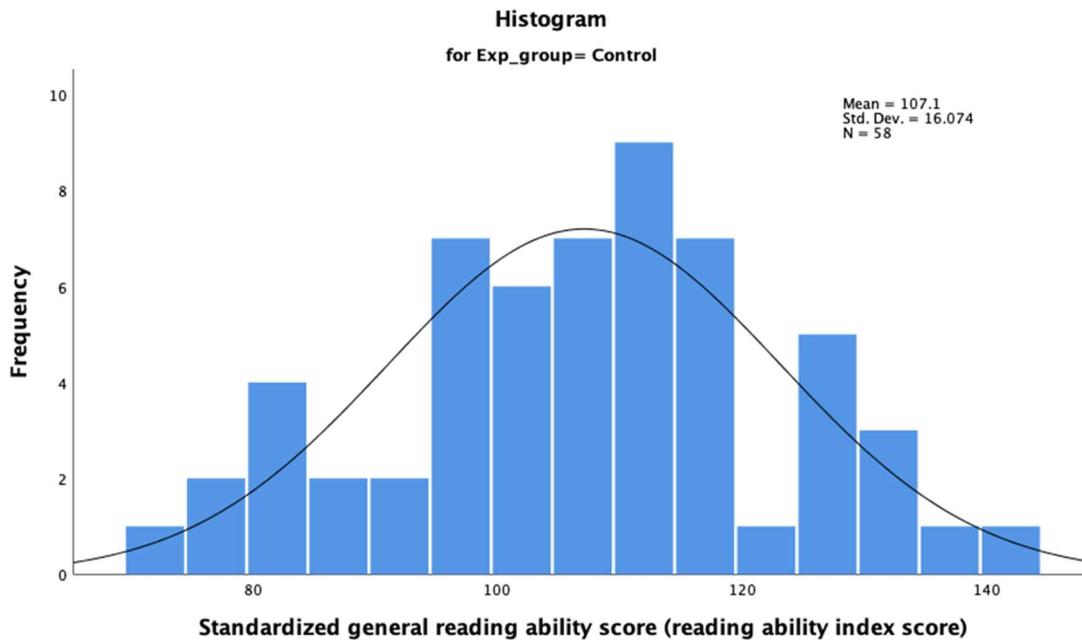
TC Group



TCDS Group



Control

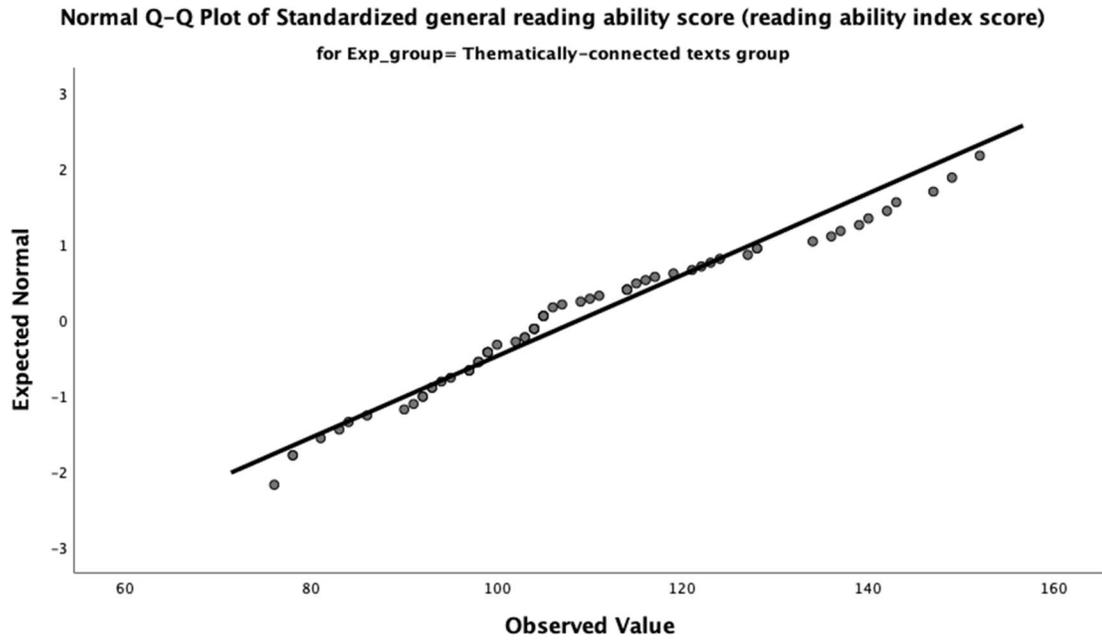


As you can see, there are variations from the curve at either end of the scores. To ensure, that these variances did exceed the threshold for a normal distribution, I used Explore function in SPSS to further investigate the distribution of the reading abilities for each TCDP group. This confirmed that reading abilities of the participants in the TCDP group did meet the standard for normal distribution, thus confirming that each group did not function the assumption of normality for a one-way ANOVA. The Q-Q plots in Figure 3 (See below) provide a visual representation confirming that, while the scores deviated from the expected normal distribution, they met the threshold for normality.

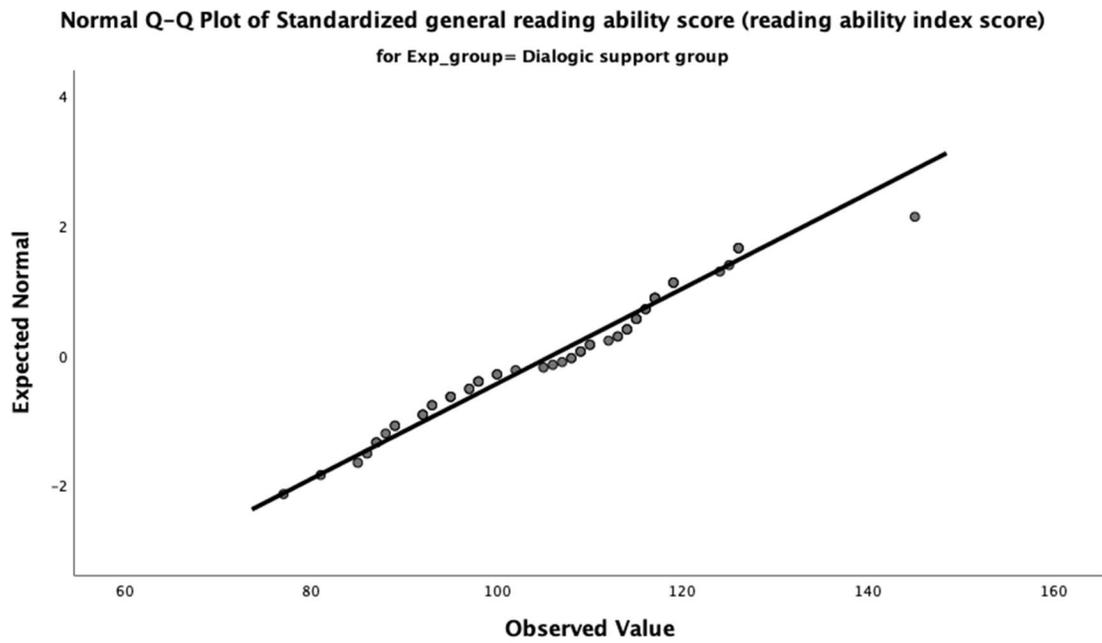
Figure 3

NDRT General Reading Ability Q-Q Plots

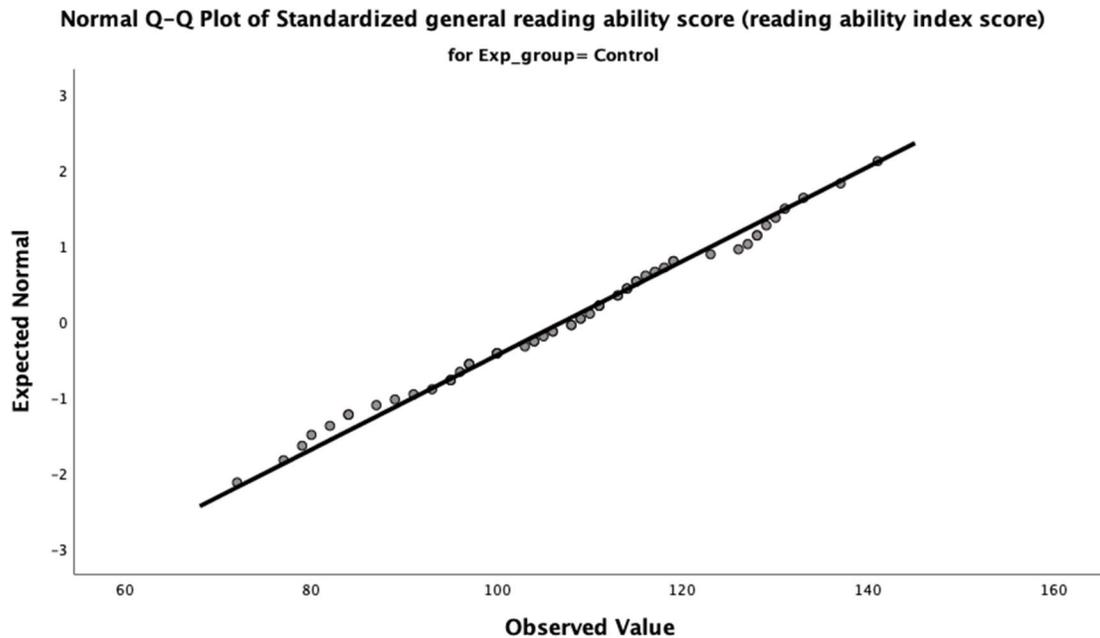
TC Group



TCDS Group



Control



Initially, I had some concern regarding the distribution of the TC group's reading ability scores from the NDRT. As you can see in Figure 3 (see above), the TC group's scores deviate more from expected normal distribution than the other two groups. Since this difference exceeded what was present in the TCDS and Control groups, I was careful to fully investigate TC group's deviation to ensure normality for the TC group was not violated by running the Shapiro-Wilk test. In short, I found that normality was not violated. For the sake of transparency, I articulate how I confirmed this in the paragraphs below.

The Shapiro-Wilk test indicated that the NDRT reading ability index score for the TC group differed significantly from a normal distribution ($W = .958, p = 0.025$). However, an ANOVA is a robust statistical test which can be reliable if the sample is approximately normal (Howell, 2013). To ensure that the TC group met the threshold

necessary to consider approximately normal, I investigated the Shapiro-Wilks data for this group further to ascertain where the divergence from a normal distribution originated. I examined the results of the Shapiro-Wilk test for both the reading comprehension and vocabulary raw scores for the TC group. The TC group reading comprehension raw scores were normally distributed ($W = .979, p = .317$) but the vocabulary raw scores deviated from a normal distribution ($W = .941, p = .003$). This allowed me to see that it was the vocabulary scores that were pulling the TC group's scores away from a normal distribution. The next task was to ascertain if these vocabulary scores made the reading ability scores so skewed or kurtotic that the TC group no longer approximated a normal distribution.

I examined the skewness and kurtosis of the TC group's NDRT general reading ability scores. By dividing the skewness and kurtosis of the TC group's NDRT general reading ability each by their standard error, I had z -scores which help to determine if the distribution approximates a normal distribution if the z -scores fall between -1.96 and +1.96 (Cramer, 1998). With a skewness of .536 ($SE = .295$) and a kurtosis of -.325 ($SE = .582$), the resulting z -scores were 1.82 and -.56 respectively, falling within the specified range necessary to approximate a normal distribution. Therefore, the TC group meet the requirements render the results of an ANOVA viable.

Since the NDRT was being used to ensure the reading ability between groups was comparable, I employed one more step to verify that the reading ability of each group approximated normality. I performed a one-way ANOVA on the NRDT to compare means between groups. The three groups did possess a homogeneity of variances of means (Levene's statistic = 2.201, $p = .114$), Finally, participants were officially assigned

to one of three groups: 1 Thematically Connected Texts (TC) group, 2 Thematically Connected Texts with Dialogic Support (TCDS) group, or 3 Control group.

Flow of the Experiment

In each group, participants were asked four comprehension questions following the reading of each passage. Participants responded to in writing on an answer sheet provided specifically for each group. All answer sheets contain the questions from the test with text boxes underneath for participants to write their answers. In those four comprehension questions, two questions seek explicit information contained in the passage and two questions require participants to respond with implicit information from the passages. At the conclusion of the reading of all passages, participants answered an open-ended response question that prompts participants to use the texts read and their own experience as evidence in constructing their answer. The open-ended question at the end of the test was "How do other people influence your identity?" Participants were provided a large text box at the end of the answer sheet to compose their answers in writing. The TCDP testing was untimed and classroom teachers were present in the class to help maintain a classroom environment conducive to testing.

Six passages from five different narrative texts were used in the research. (See Appendix A for passages.) Two continuous passages were selected from Margaret Atwood's *The Handmaid's Tale*, a dystopian novel where a theocracy has arisen in the United States and subjugated some women to the biological function of procreation. A third passage shares a thematic connection to the continuous passages. This third passage was taken from Angela Johnson's *The First Part Last*, where a teenage African American man is struggling with how his life now revolves around caring for his newborn infant

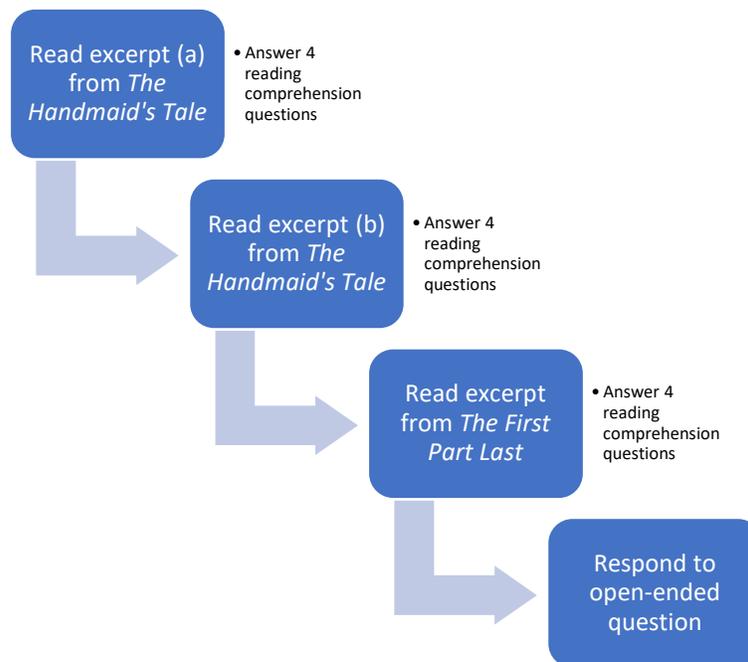
daughter. These passages were used in both the TC and TCDS groups. A group of three passages unrelated to each other was used for the Control group.

Flow of the Experiment for the Thematically Connected (TC) Group

In the TC group, two consecutive passages from a novel and a transfer passage were used in the experiment. The creation of this condition was predicated on initial readings of the first passage establishing a textbase for the second passage which should sustain reading comprehension. The transfer passage would demonstrate the transfer of reading comprehension gains being aided solely by thematic connection between passages. The TC group read two texts that are continuous excerpts from *The Handmaid's Tale*, and an excerpt from *The First Part Last* that is thematically connected to the first two. Figure 4 (see below) shows the flow of the experiment for the TC group.

Figure 4

Flow of Experiment for Thematically Connected Texts Group

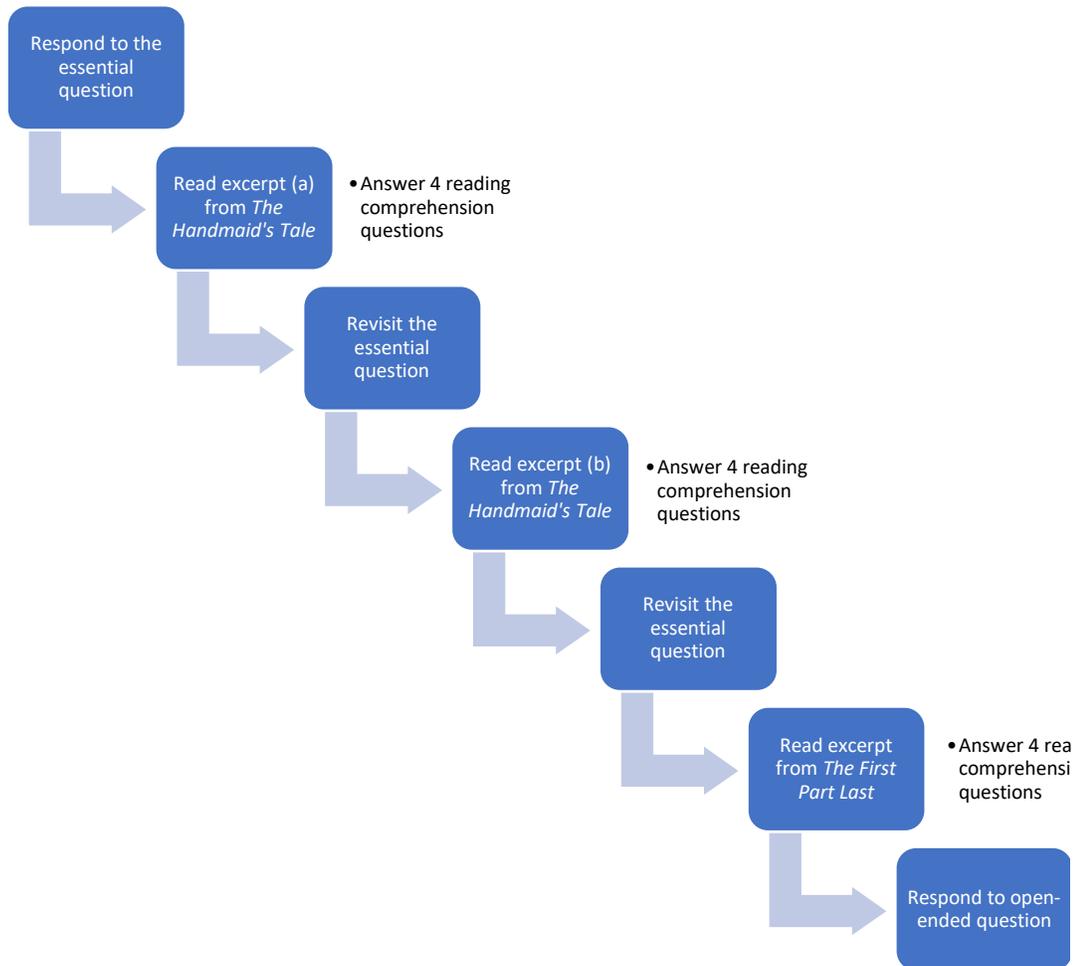


*Flow of the Experiment for the Thematically Connected Texts with Dialogic Support
(TCDS) Group*

In the TCDS group, the texts that participants read were related thematically, as conceptually related texts provide a means for participants to generate meaning and synthesize texts in a new mental representation (Fecho, 2011; Smagorinsky, 2008). The TCDS group read the same texts as the TC group but were asked to respond in writing for a few minutes to the essential question, "What makes you who you are?" on a space provided on the front page of their test answer sheet prior to beginning the readings and briefly again at the conclusion of reading each passage. Figure 5 (see below) shows the flow of the experiment for the TCDS group.

Figure 5

Flow of Experiment for Thematically Connected Texts with Dialogic Support Group



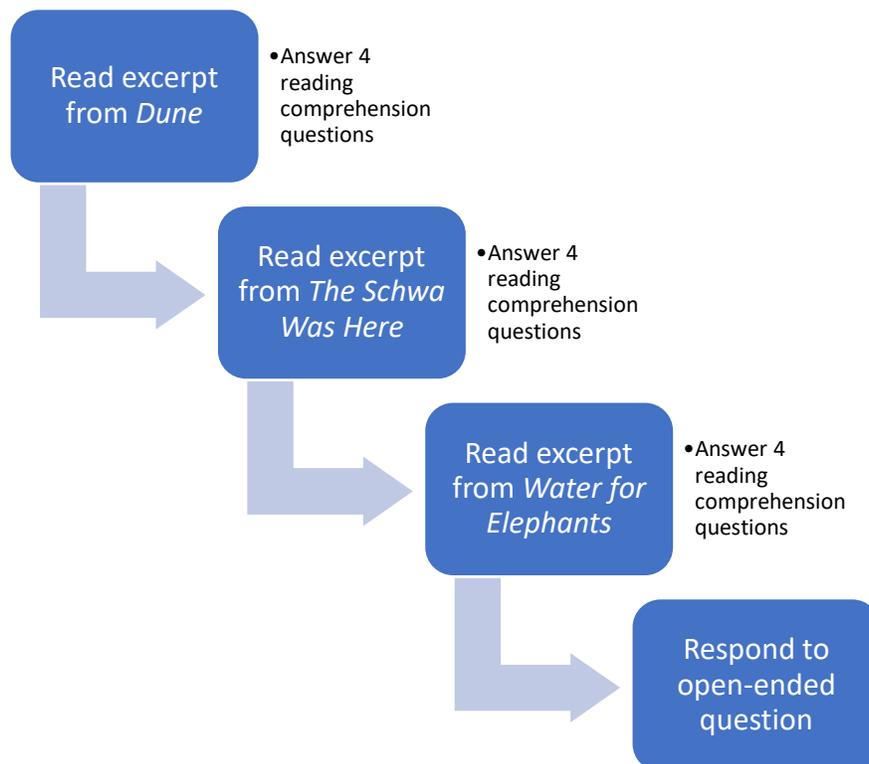
Flow of the Experiment for the Control Group

The Control received three passages where none are continuous passages from the same text or share any overt thematic connections, and participants in this group did not receive the support of an essential question. The first passage is from Frank Herbert's *Dune*, a science fiction novel where a teenaged young man becomes the prophesied leader on a hostile world. The second passage is from Neal Shusterman's *The Schwa Was*

Here, a contemporary novel about a young man and his friend who evades notice by anyone. The last passage comes from Sara Gruen’s *Water for Elephants*, a story about a man’s tumultuous life in the circus. Figure 6 (see below) shows the flow of the experiment for the Control group.

Figure 6

Flow of Experiment for Control Group



Data Analysis

In this subsection, I describe the data analysis process. First, I discuss the procedures for analyzing the reading comprehension data. Second, I discuss the procedures for analyzing intertextuality data. Third, I describe measure taken to achieve interrater reliability.

Analysis of Reading Comprehension Data

Reading comprehension data were analyzed using a series of one-way ANOVAs and analyses of covariance (ANCOVAs) with NDRT standardized general reading ability score used as a covariate. I checked the following assumptions to ensure that the results of the ANOVAs would be reliable: a) independence of samples; b) normal distribution; C) homogeneity of variances. Along with the assumptions for an ANOVA, I checked two assumptions necessary for the results of ANCOVAs to be reliable. First, the relationship between the TCDP overall reading comprehension scores and the NDRT standardized general reading ability scores should be linear. Second, there needs to be homogeneity of regression between TCDP groups and NDRT standardized general reading ability scores. Both additional assumptions for the ANCOVA were met.

Considering that I am looking at the difference between multiple groups (TC, TCDS, and a Control) with a question regarding a continuous dependent variable and one categorical independent variable (the testing condition to which participants were randomly assigned: thematically connected texts, thematically connected texts with dialogic support, and a Control group which read unrelated texts), an analysis of variance (ANOVA) is an appropriate test to compare the relationships between each condition (Howell, 2013). I used a series of one-way ANOVAs to explore the effect of a dialogic approach on reading comprehension. To further identify the efficacy of a dialogic approach to reading comprehension, I performed a similar series of ANCOVAs with NDRT standardized general reading ability score as a covariate to better clarify the effect the approach had over and above individual reading ability.

I began data analysis by assessing how the various conditions (thematically connected texts, thematically connected texts with dialogic support, and unrelated texts)

differed from each other in terms of reading comprehension ability. The units of analysis are the participant in the study. With the four reading comprehension questions participants answered at the conclusion of each passage, I coded their responses from 0-4 using the rubric outlined below in Table 2 (see Table 2), for a total of 48 points possible.

Table 2

Rubric for Evaluating Passage Reading Comprehension Questions

Score	Criteria
4	The participant answers the question directly and cites specific evidence from the text in detail or makes multiple citations.
3	The participant answers the question directly and accurately. If evidence is used, it is used ineffectively or unclear how it supports the answer.
2	The participant answers the question in a general or vague manner. The answer may be right, or not clearly wrong, but there's not enough there to say that the student comprehended the passage well enough to answer the question. Additionally, this could include instances where the student has copied lines from the text that could be considered evidence to support an answer but has not explained or given any indication of what that answer is.
1	The participant composes an answer which is incorrect though the content of the answer does address the question.
0	The participant does not answer the question or answers in a manner that does not address the question. This would include answering a question with a written statement that is nonsensical or "out of left field." In inferential questions, this could be seen in participants copying random lines from the text that do not pertain to the question.

Averaged together, the scores provided a value to compare comprehension of each passage and control for participant reading comprehension in an ANOVA.

The first ANOVA compared the performance of participants on their overall score, a range of 0 to 48, on reading comprehension to examine whether one condition was more strongly correlated to improved reading comprehension in a transfer passage

than others. From there, I looked specifically at the performance of each group on both reading comprehension questions that sought explicit information and those questions which sought the participant ability to draw inferences from the text. This set of comparisons was reiterated with ANCOVAs where I partial out individual reading ability.

An ANOVA was performed for each set of questions, each set having a score range from 0 to 24. Based on what I saw in how groups performed on reading comprehensions seeking explicit information from the passages and those asking participants to make inferences, I created a new variable in SPSS by subtracting each participant's sum on the explicit questions from their sum on the inferential questions. I labeled this variable "Difference between explicit reading comprehension sum and inferential question sum."

I then performed a one-way ANOVA comparing means between the three groups to see if the difference between the groups was significant, indicating that a condition for a group helped sustain or improve performance on the different level of comprehension being sought in the question. Another point of consideration was how participants performed across the three passages in reading comprehension. To explore this, I created another variable in SPSS which took into account the change in reading comprehension scores for each passage.

I totaled the score for all reading comprehension questions for each passage. With those totals, I subtracted the total score from the first passage from the total score on the second passage, giving a change in score from the first passage to the second. I performed the same function for the total scores for the second and third passages,

subtracting the total score from the second passage from the total score of the third, providing a change of score from the second to the third passage. By subtracting the change in score from the first to the second passage from the change in score from the second to the third passage, I derived an overall change of score among the three passages which I labeled “Difference in changes between passages” in SPSS. I then performed the last one-way ANOVA on the reading comprehension question scores by comparing the means between the three groups on this variable.

Analysis of Intertextuality Data

Intertextuality was measured by having each participant, at the conclusion of reading all passages, answer an essential question using whatever evidence is useful for substantiating their claims. Participants responded in writing in the space provided in their answer sheet. Prior to running any statistical analyses, the open-ended question response data were coded.

The responses to the open-ended question were coded by Heather Turner and myself using *a priori* codes (See Table 3 below) to index instances where participants referenced their own experience or the texts as evidence or illustrative of a point. These *a priori* codes represent the sources that participants might have been drawing from to support their positions: the passages or prior knowledge. Codes that could be assigned were related to each passage (Table 3) and signify participant reference to the name of the title, author, characters, places, or events detailed in the passage. Codes were also used in the instance of the use of descriptions to identify characters, places, name of work, or events from the passages. A separate code, Dialogic Connections (DC), was used to account for references to a participant’s own life experience or knowledge of the

world and current global or local events used to support a point in the response. At the conclusion of coding, the number of codes generated were totaled.

Table 3

Intertextuality Codes for Open-Ended Question Response

Code	Text Indicated
HMT	Excerpts from <i>The Handmaid's Tale</i>
1PL	Excerpt from <i>The First Part Last</i>
DUNE	Excerpt from <i>Dune</i>
SWH	Excerpt from <i>The Schwa Was Here</i>
WFE	Excerpt from <i>Water for Elephants</i>
DC	Dialogic connections made to the texts

I used these codes to measure the number and frequency with which participants drew on multiple sources to substantiate their claims and compared across conditions to gauge whether a dialogic approach scaffolded the transfer of schema and reading gains between passages and aided intertextual connections. I performed an ANOVA for the open-ended response that was scored for intertextuality. The factors in the ANOVA were the three treatment groups and the dependent variable was to be the number of intertextual connections made by the participants in the response. I performed a similar ANCOVA with the NDRT standardized general reading ability score as a covariate. The results of both analyses indicated that there was no significance in mean among the groups. Even though the ANOVA and ANCOVA showed there was no significance among the groups, the rate at which participants made no references to the texts indicated

that there could be some importance to whether they were using evidence at all, which I believed warranted further investigation.

To further investigate the rate at which no evidence was used in the open-ended responses, I calculated a new variable in SPSS named “Used Evidence” with the values of 0 for participants who did not reference any of the texts or their own experience and 1 for participants who used evidence in their open-ended response. I then performed a chi-square analysis for all participants to see if there was any significance to the difference in the number of participants who used evidence and those who did not. Then I selected each group, filtering out the other two in SPSS, and performed another chi-square analysis to see if there was any significance to the use of evidence within each TCDP group. After I performed a chi-square test for each group, I ran a last chi-square analysis to see if there was any effect between groups on whether or not participants used evidence. In light of the result of that test, the use of a one-way ANOVA to compare means between the groups I determined would not be particularly insightful.

To calculate how important the potential difference is between groups, I calculated an effect size for the reading comprehension outcome measure. Using SPSS, I selected the option to estimate an effect size in a one-way ANOVA and used partial Eta-squared to evaluate effect size of the support offered in the two treatment groups, where a .10 would be a small effect size, .25 a moderate effect, and .5 large. Results for this segment of the data corpus will be discussed in chapter 4.

Interrater Reliability Measure

Immediately following data collection, answers to reading comprehension questions and the open-ended response were coded by Heather Turner and myself

separately for 48 of the participants to establish interrater reliability. These 48 tests (or a little over 25% of the total number of tests) were scored independently using the codebook (see Appendix I). Before any coding, Turner and I met to train on using the codebook (Appendix I) together on three participant's tests also drawn randomly but separate from the 48 being used to check interrater reliability. For each reading comprehension question, we reviewed the answer using the codebook and talked about how the participant's response should be scored on a scale of 0-4. For coding the open-ended responses, Turner and I could easily agree on whether participants made a reference to one of the passages or their own experience in their response even during the first test used for training. For the reading comprehension question responses, it was not until the second test that Turner and I felt like we were interpreting the codebook the same way. We completed scoring a third test together to further train using the codebook. All told, training on the codebook took approximately three hours.

Interrater reliability was calculated using Cohen's *kappa*. The tests of the 48 participants were drawn randomly from the sample by numbering each participant sequentially in Excel and then using the RANDBETWEEN function to generate 48 random numbers between 1 and 184. Following training on the codebook, Turner took 24 of the tests from the interrater sample and I took 24 and we coded reading comprehension question responses and open-ended responses separately. Researchers recorded their codes in an Excel spreadsheet. After both of us coded our 24 tests, we switched and coded the other 24. Once all coding was complete, I combined the Excel spreadsheets for Turner and me into one spreadsheet and imported it into SPSS. Using SPSS, I calculated Cohen's *kappa* as a measure of agreement between raters which accounts for agreement

based on chance (Neuendorf, 2017). Reading comprehension (Cohen's $kappa = .477, p < .001$) and intertextuality (Cohen's $kappa = .715, p < .001$) coding agreement had good to fair agreement beyond chance (Banerjee et al., 1999). I proceeded to code the remaining participants' tests. These scores were entered into an Excel spreadsheet for each participant which was then imported into SPSS for analysis. These results will be discussed in chapter 4.

Limitations

The design of this study presents an opportunity to explore whether reading comprehension support centered on dialogic pedagogy helped participants transfer reading gains from one text to another, yet with any study, there are limitations in the execution of the research. The study was limited in the scope of the study and the means of collection. In this section, I detail the limitations of the study and explain how I was able to account for or mitigate them.

Power of Experiment

The largest limitation to the study I is the low number of participants in each condition should the effect of either treatment be small. With an n in the study that is smaller than necessary to detect the effect of either treatment, I increase the likelihood that I fail to reject a null hypothesis when it is false, a Type II error (Howell, 2013). The best method to avoid making that error would be to increase the number of participants in the study and, by extension, the number of participants in each condition. In initial recruitment for the study, the number of participants included met the appropriate number of participants, however participants were taken out of the study due to, primarily, not being present for both rounds of testing. The final total of participants, 184, is less than

the original total sought, but still allows me to draw conclusions from the experiment (Kirk, 1996).

Test Response Format

A second limitation to the study is the format in which the TCDP testing sought responses from participants. In both the reading comprehension section and the open-ended response looking for intertextuality, participants were asked to write their responses on an answer sheet. The format for answering the questions does conflate to related but separate skills, reading and writing. In an ideal situation, participants would answer all responses orally. Given the time frame for testing by the participating school and the available time and labor of the researchers, written responses were a more logistically feasible option for conducting the study. Given the number of participants (n = 184) still involved in the study, I am fairly certain any difficulties with writing the answers did not compromising the results of the study.

Chapter 4: Findings

This study was designed to determine if the inclusion of a dialogical (Fecho, 2011; Stewart, 2019) and thematic approach to reading print materials might assist in the transfer of reading comprehension and intertextuality gains to novel texts for students in the general education English classroom. In particular, the experiment sought to ascertain if providing participants with dialogic support assisted adolescent readers' ability to read, comprehend, and make connections between texts. A larger goal for this project was to collect data to further examine the utility of a dialogic, thematic approach to instructional planning/design and delivery in the general education secondary English classroom to explore potential supplements to comprehension strategies.

In chapter 3, I outlined quantitative methods I employed to answer the following research question:

For adolescent readers, how might a dialogic approach influence reading comprehension and intertextual connections using thematically connected texts as compared to unconnected texts or thematically connected texts without a dialogic approach?

In this chapter, I first present my findings related participant reading comprehension between the three conditions of Thematically Connected Dialogic Pedagogy (TCDP) testing as related to the measures: reading comprehension and intertextuality. First, I present results related to overall reading comprehension score on the TCDP. Then, I provide detailed presentation of the reading comprehension measure

to discuss any significance to gains on explicit questions or participant ability to draw inferences from the text. Second, I present findings related to participant ability to use the texts they have read and their own experience and prior knowledge to respond to an open-ended response citing those texts as evidence. The key distinction being sought is whether one TCDP testing group was better able to use the texts as evidence to support their writing than others.

I will discuss the implications of these findings and work from the theoretical and empirical literature grounding this study to articulate the significance of this research for teachers, teacher educators, and researchers in chapter 5. First, however, I present the findings related to reading comprehension and intertextuality.

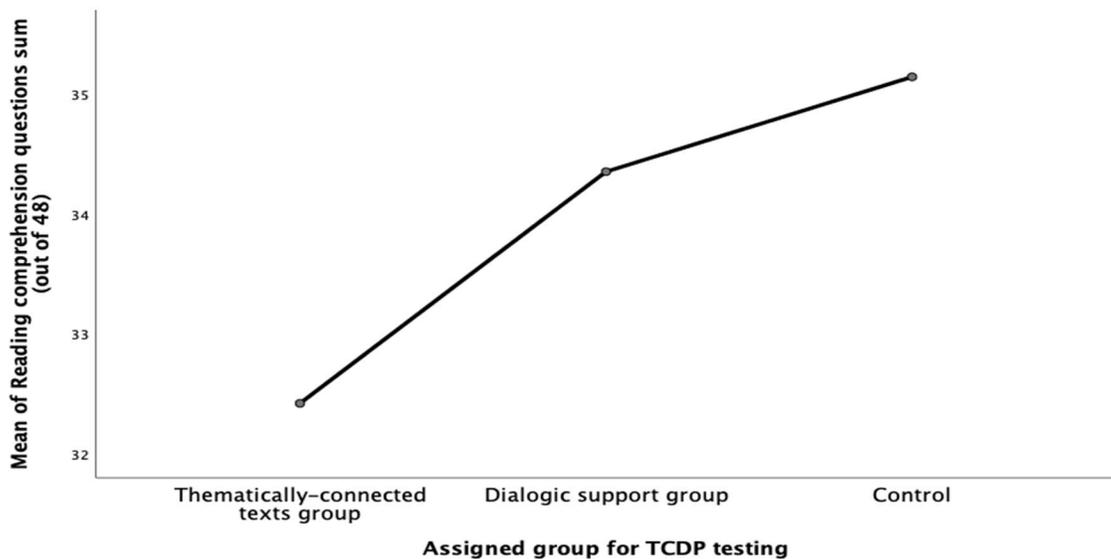
Reading Comprehension

The first outcome measure of the TCDP testing was the ability of participants to read passages of comparable difficulty and answer questions that sought explicit and inferential information. The dialogic and thematic supports provided in the TCDP testing did not result in a statistically significant difference in overall reading comprehension score. Neither of the two supports TCDP testing was designed to offer, thematically connected texts or the addition of dialogic support, affected reading comprehension significantly for participants in those conditions. In SPSS, I performed a one-way ANOVA with the reading comprehension questions sums as the dependent variable and the experimental group as the independent variable. In running the ANOVA, I could see that there were no significant differences among the conditions tested in the TCDP round of testing, $F(2, 181) = 1.598, p = .205$.

As indicated in Figure 7 (see below), the Control group did have a higher mean than the two experimental groups.

Figure 7

TCDP Testing Reading Comprehension Means



The higher mean for the Control group was not statistically significant, but I thought it was important to investigate why it was higher than the two other TCDP testing groups. The data related to the explicit versus the inferential questions provided allowed me to explore how each TCDP group performed compared to the others and determine what was raising the Control group's means as compared to the other groups.

Participant Performance on Explicit Questions

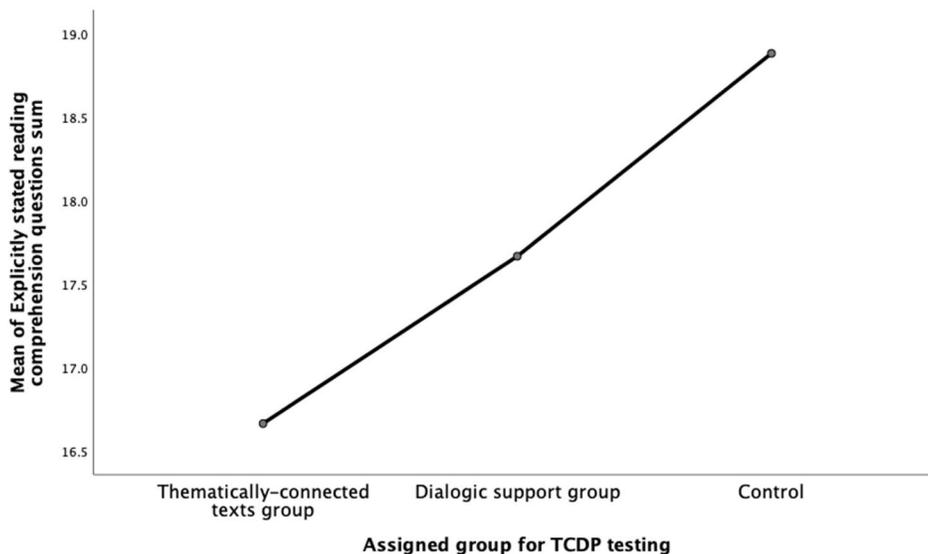
I was working from a theoretical framework that led me to anticipate that the thematic and dialogic supports provided by the TCDP testing would likely cause the Thematically Connected Texts (TC) and Thematically Connected Texts with Dialogic

Support (TDCS) groups to have a higher mean than the Control group. The data did not bear out this hypothesis. To develop insight into why this was the case, I examined the performance of the groups on reading comprehension questions seeking explicit information.

An ANOVA for the explicit questions revealed a significant difference between groups, $F(2, 181) = 3.344, p = .038$. Performing a post hoc Scheffe test, the significant difference for reading comprehension questions seeking explicit information lie in the means of the TC group (16.67) and the Control (18.88). The Control group's mean was significantly higher than the mean for the TC group ($p = .038$; see Figure 8). The Control group, on average, scored over 2 points higher on the reading comprehension questions seeking explicit information than the TC group.

Figure 8

TCDP Testing Reading Comprehension Question for Explicit Information Sum Means



I noted the statistically significant difference between the score of the Control and the TC and sought to ascertain why this might be the case. I have determined that the nature of the questions asked might have influenced the results. Upon further reflection on the nature of the questions asked, the explicit information sought in the questions in the Control group more closely matched onto the passages participants read. For instance, from the first passage excerpted from *Dune*, the second reading comprehension question asks participants in the Control group “What does the Reverend Mother say is in the box?” When participants look at the passage (see below), the answer is clear.

“Old woman!” she snapped. “You’ve courage, and that can’t be denied.

Well, we shall see, sirra.” She bent close, lowered voice almost to a whisper.

“You will feel pain in this hand within the box. Pain. But! Withdraw the hand and I’ll touch your neck with my gom jabbar-the death so swift it’s like the fall of the headsman’s axe. Withdraw, your hand and the gom jabbar takes you.

Understand?”

“What’s in the box?”

“Pain.”

The explicit answer to the question is fairly direct and could be discerned by scanning the text for the answer. Comparatively, the second reading comprehension question from the first passage excerpted from *The Handmaid’s Tale* asks participants in the TC and TCDS group, “On her walk to the store, what is something Offred remembers from her life before being a Handmaid?” The passage from the text (see below) offers general area where Offred, the main character reflects back on her life before the current theocracy.

Doctors lived here once, lawyers, university professors. There are no

lawyers anymore, and the university is closed.

Luke and I used to walk together, sometimes, along these streets. We used to talk about buying a house like one of these, an old big house, fixing it up. We would have a garden, swings for the children. We would have children. Although we knew it wasn't too likely we could ever afford it, it was something to talk about, a game for Sundays. Such freedom now seems almost weightless.

Here, there is no mention of a "life before" and the verb "remember" does not appear in the text. The text does directly address the question, but it does not use the exact same wording as the question, unlike the question for the *Dune* excerpt in the Control group. Additionally, there are later passages where Offred recalls other aspects of her life before the theocracy, such as how she used to go jogging and what she wore. Another section of the first passage uses the verb, "remember" when Offred recalls the rules women followed before the theocracy to help prevent being assaulted. This answer appeared frequently in student responses in both the TC and TCDS group answers.

All of these responses do address the question and cite evidence from the text that supports it. However, the section of text that recalls a memory in conjunction with walking through a neighborhood is the passage where she recalls walking with Luke and restoring one of the houses. The importance in the difference between the responses is that the Control group could more closely match the question to the text while there was room for a range of answers for the TC and TCDS group. The texts and corresponding questions for the TC and TCDS group required them to understand the passage rather than just scan for key words. Looking at the data from this angle leads me to conclude

that differences in means might be related to participants' abilities to scan texts and find key words that point to answers.

Potential Value of Dialogic Support

The lack of statistical significance between the means for the Control and the TCDS group led me to consider possible explanations for the finding that the Control did not outperform the TCDS group significantly, as it had done with the TC group. The TCDS group read the same passages and answered the same questions as the TC group, yet the participants performance on reading comprehension questions seeking explicit information did not differ significantly from the Control group as the TC group did. What I further find interesting is that the TC group's higher average vocabulary knowledge score was the value that made the group's Nelson-Denny Reading Test (NDRT) general ability index score differ significantly from a normal distribution on the Shapiro-Wilk test. In other words, despite the TC group having a general better vocabulary knowledge as gauged on the NDRT, the TCDS group performed well enough on the reading comprehension questions seeking explicit information that there was no significant difference between TCDS group and the Control (see Table 4 below).

Table 4
Comparison of Explicit Reading Comprehension Question Scores

(I) TCDP Testing Group	(J) TCDP Testing Group	Mean Difference (I – J)	SE	p
TC Group	TCDS group	-1.000	.848	.500
	Control	-2.213	.856	.038
TCDS group	TC Group	1.000	.848	.500
	Control	-1.213	.876	.385

Control	TC Group	2.213	.856	.038
	TCDS group	1.213	.876	.385

The data suggest that the dialogic support provided for the TCDS group in the TCDP testing might have helped the participants understand the text well enough to erase any statistically significant difference in performance between the TCDS group and the Control. I drew this conclusion by further examining the TCDP test.

Though the TC and TCDS groups read the same passages and answered the same reading comprehension questions, the TCDS group first were afforded the chance to respond to a larger question which could frame the passages. Prior to reading the passage from *The Handmaid's Tale* referenced above, participants in the TCDS group would have responded to the essential question “What makes you who you are?” for ten minutes in writing. This activity offered the opportunity for participants in the TCDS group to activate memory related to influential events which defined them (Posner & Snyder, 2004). This may have helped form a situation-specific schema for understanding centered on reading for influential events (Cartwright, 2008; Spiro et al., 1987) which then could have facilitated participants in the TCDS group using their general knowledge of how events influence people to help comprehend the textbase of the passages (Kintsch & van Dijk, 1978). This schema would then be reinforced as participants were asked to revisit the same essential question following the first and second passages.

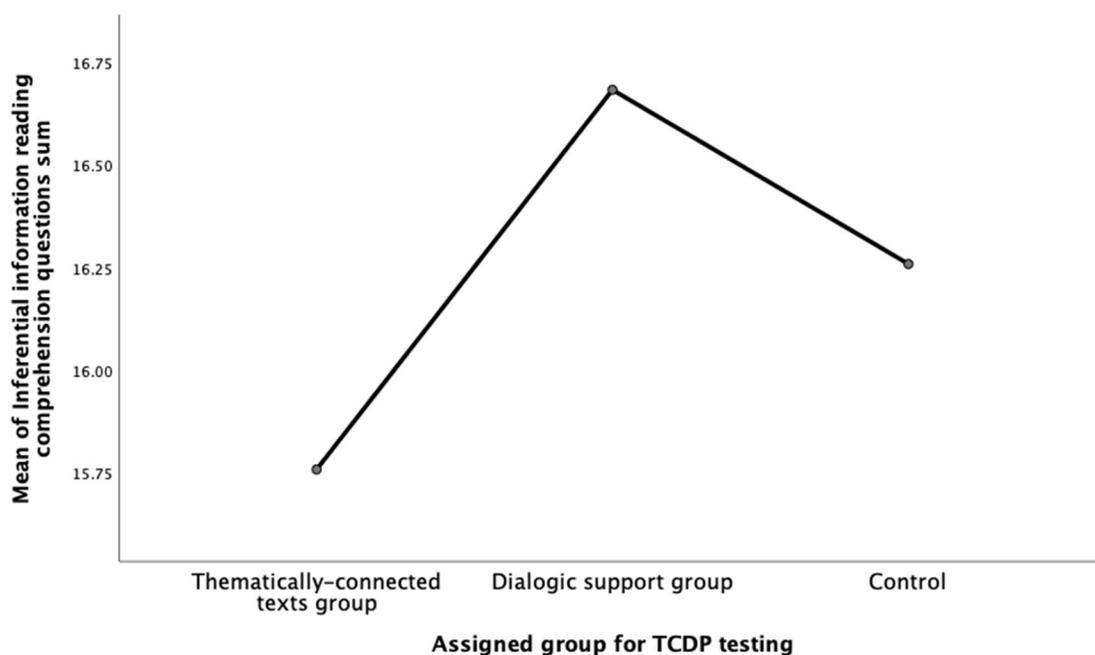
The picture changes, though, as I considered how the different groups performed on the two reading comprehension questions seeking inferential information.

Participant Performance on Inferential Questions

As found with participant performance on explicit questions, there was no statistically significant difference among the three groups during TCDP testing with inferential questions. The results of the ANOVA of inferential questions did not differ significantly by group, $F(2,181) = .633, p = .532$. The Control group does see a dip in performance from how participants scored on reading comprehension questions seeking explicit information (see Figure 9), yet there is still no significance that can be attributed to the scores beyond chance.

Figure 9

TCDP Testing Inferential Reading Comprehension Means



Controlling for Individual Reading Ability

By using an ANCOVA with NDRT standardized general reading ability as a covariate, I observed a significant difference between means of TCDP groups, $F(2, 180) = 4.222, p = .016$. With $\eta_p^2 = .045$, TCDP groups would seem to account for 4.5% of

the variance seen in participants' overall reading comprehension scores above and beyond individual reading ability. A post hoc pairwise comparison of groups revealed that the significant difference between means of the groups was between the TC group and the Control ($p = .028$), with the Control outperforming the TC group.

Further examination with an ANCOVA revealed a significant difference of means between participant performance on reading comprehension questions seeking explicit information, $F(2, 180) = 6.416, p = .002$. With $\eta_p^2 = .067$, TCDP groups would seem to account for 6.7% of the variance seen in participants' reading comprehension scores on questions seeking explicit information. Once again, a post hoc pairwise comparison of groups showed the significant difference lay between the TC and Control groups, similar to the results seen in the one-way ANOVA. However, the ANCOVA for participants' scores on reading comprehension questions seeking inferential information showed no significance, $F(2, 180) = 2.149, p = .12$. This pattern mirrors what was seen in the one-way ANOVAs examining explicit and inferential question performance leading me to conclude that the significance seen in the ANCOVA for overall reading comprehension scores was the result of further skewing of results from the explicit question performance after controlling for individual reading ability. The indicator here would be the lack of significant difference seen in reading comprehension questions as opposed to the difference between the TC and Control groups on reading comprehension questions seeking explicit information. The difference between performance on question type may be something worth further examination for future TCDP testing as I discuss in chapter 5.

As seen in both the ANOVAs and ANCOVAs performed, the noticeable change in performance in the Control group between participants' scores on reading

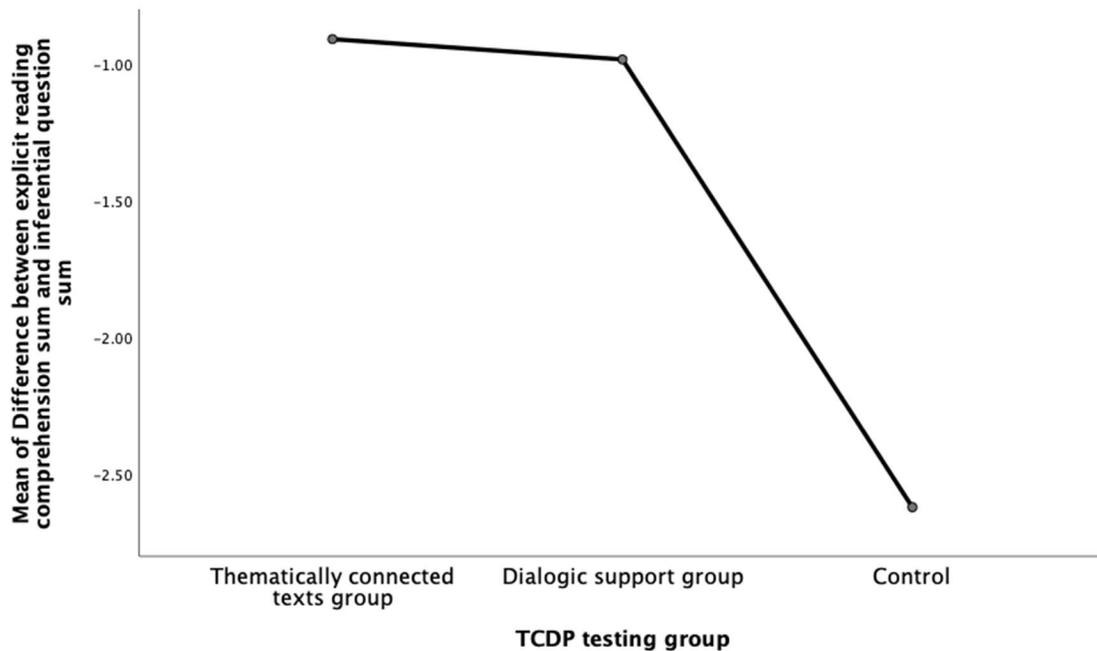
comprehension questions seeking explicit information and questions seeking inferential information suggested a closer examination between the change in how participants scored on the two different kinds of questions (explicit and inferential).

Comparing Participant Performance on Explicit and Inferential Questions

Performing a one-way ANOVA with the “Difference explicit reading comprehension sum and inferential question sum” variable as the dependent variable I then performed a one-way ANOVA in SPSS with the new variable as my dependent variable and the TCDP group as the independent variable. There was a significant difference between the mean of the Control group and the means of the TC and TCDS group, $F(2,181) = 4.190, p = .008$ (see Figure 10).

Figure 10

Explicit and Inferential Question Comparison of Means

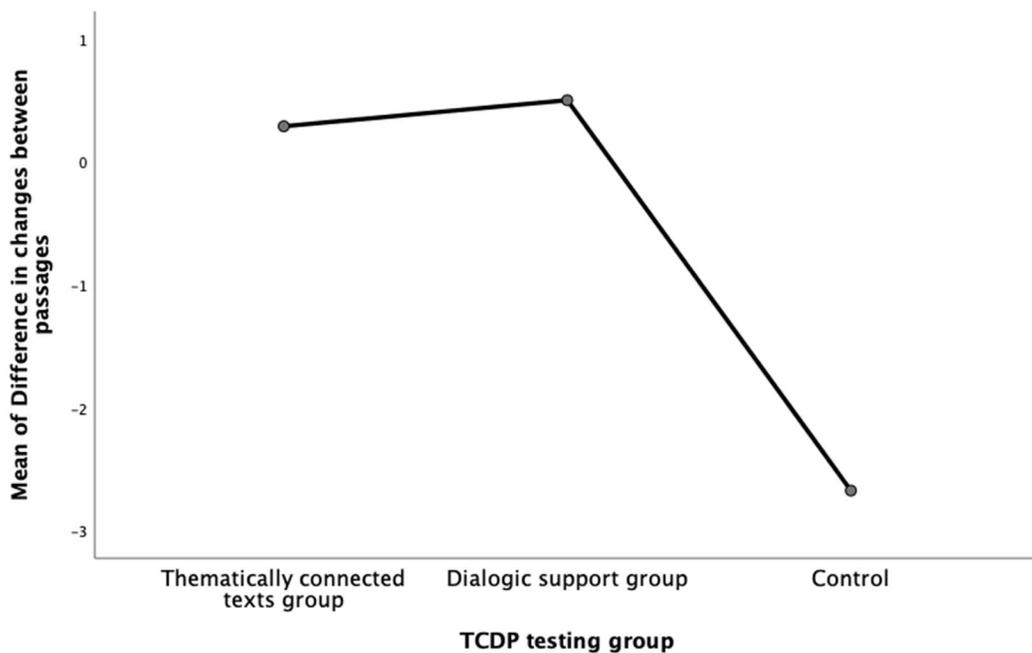


In light of the Control group’s performance on the expository questions in comparison to the TC group, I would hesitate to draw too much from this result. I am more inclined to observe that the results from the reading comprehension questions seeking inferential information for the Control were not significantly different from the TC and TCDS groups and this change in means between the explicit and inferential questions scores may simply be due to the fact that the Control group’s scores had more room to drop.

The overall change in performance over all three passages was more insightful. A one-way ANOVA performed with the “Difference in changes between passages” as the dependent variable and the TCDP testing groups as the independent variable showed a significant difference between the Control group mean and the TC and TCDS group means, $F(2,181) = 7.785, p = .001$ (see Figure 11).

Figure 11

Comparison of Difference in Changes Between Passages Means



As shown in Figure 11 (see above), the TC and TCDS groups' scores changed by less than one point. Whereas the Control group's scores changed, on average, over two points. The data suggest that the TC and TCDS groups were able to read and comprehend consistently across texts and types of questions. On the other hand, the drop in the Control group's performance suggests that they struggled to maintain the same level of comprehension across the three passages. In short, the TC and TCDS groups performed in ways that suggest the ability to transfer information to novel texts.

Since the TC and TCDS groups both outperformed the Control group, it was important to further examine the data and attempt to locate the significant relationship between the groups. Using a *post hoc* Scheffe test to examine the differences between groups, (see Table 5), the TC and TCDS groups had no significant difference from each other in terms of the change of scores over the three passages. However, they differed significantly from the Control group.

Table 5

Comparison of Difference in Changes Between Passages

(I) TCDP Testing Group	(J) TCDP Testing Group	Mean Difference (I – J)	SE	p
TC Group	TCDS group	-.212	.874	.971
	Control	2.960	.882	.004
TCDS group	TC Group	.212	.874	.971
	Control	3.172	.902	.003
Control	TC Group	-2.960	.882	.004
	TCDS group	-3.172	.902	.003

Table 5 (see above) illustrates that both the TC and TCDS groups perform more consistently across the passages when answering comprehension questions (both explicit and inferential) than the Control group.

The data suggest the consistency of the TC and TCDS groups' performance across passages could be related to the scaffold of thematically connected texts and dialogic support offered in those groups for TCDP testing. While this finding is promising in terms of the potential benefits of dialogical approaches to reading comprehension instruction, further investigation is warranted to more fully understand the influence of these elements in TCDP testing.

Intertextuality

The second outcome measure of the TCDP testing was the ability of participants to make connections between the texts read and apply them in writing, a measure of intertextuality. The manner in which this was measured was the use of *a priori* codes (see Appendix I) tied to the different texts which participants could reference in their written response: the passages they had just read or their own lived experience and prior knowledge. The intent was to determine if the presence of one of the conditions would show more usage of textual references than another group in their open-ended response after reading the passages.

Consistent Lack of Evidence

As discussed in chapter 3, the ANOVA revealed that there was no significant difference between the groups in the number of references they made to the text. I further investigated that data using a chi square goodness-of-fit test see whether there was any

significance to the rate at which participants referenced texts. Consistently, over 70% of all participants did not make any specific reference to the texts read during TCDP testing or their own experience. That rate remained constant even examining individual TCDP groups.

The majority of all participants did not use evidence and that trend continued within each TCDP group, demonstrating that the lack of evidence use was not by chance. Table 6 (see below) illustrates the number of participants who did not use evidence in their written response to the open-ended question following the reading of all passages as opposed to participants who used any evidence is significant (see Table 6).

Table 6

Participant Use of Evidence Chi-Square Test

TCDP Group	Referenced Texts		No Text References		$\chi^2(df)$
	n	%	n	%	
All participants	42	22.83	142	77.17	54.348* (1)
Within each group					
TC Group	15	22.73	51	77.27	19.636* (1)
TCDS Group	13	21.67	47	78.33	19.267* (1)
Control Group	14	24.14	44	75.86	15.517* (1)

* $p < .001$

Though the results of the chi-square were not promising, I still performed a one-way ANOVA as I had planned with the dependent variable of the number of textual

references each participant made and an independent variable of the TCDP group each was assigned to. The TCDP group did not affect the number of textual references made by each group, $F(2, 181) = .289, p = .75$. This affirms what I saw with the chi-square test regarding the effect of the testing conditions on participants' intertextuality in their open-ended responses.

While each participant received different testing conditions, one of which included vastly different texts from the other two, no condition produced any meaningful difference on the number of textual references made in an open-ended response in which participants were asked to provide evidence based on the readings they had just completed or something from their own experience and prior knowledge. Consistently, over 70% of all participants did not make any specific reference to texts from the test or their own experience. This persisted within each TCDP testing group – participants typically did not make any references to the texts they had read in their written response to the open-ended question. A further analysis of variance confirmed that the different TCDP groups did not affect the number of textual references participants were making within each group.

Conclusion

This study used the TCDP assessment I developed to examine the effect of a dialogic approach to reading on the outcome measures of reading comprehension and intertextuality. This chapter reported the results of that study as related to the specific effects of three different conditions (thematically connected texts condition, thematically connected texts with dialogic support condition, and a control condition where participants read three texts with no overt thematic connection) on participants' abilities

to comprehend explicit and inferential information from the texts and use what they have read or their own experience and prior knowledge in a written response at the conclusion of the readings. The data revealed no significance to the effects of the different supports on participants' ability to either comprehend the texts or make references to them as evidence for an argument after reading.

In the reading comprehension outcome measure concerning overall performance, participants in each condition are no better or worse than each other. While not significant, the Control group did have a higher mean on this measure which prompted a closer examination of how each group performed on reading comprehension questions seeking explicit information and reading comprehension questions seeking inferential information.

On reading comprehension questions seeking explicit information, the Control group did significantly better than the TC group. This was a surprise from what was expected, though the change in score may be attributable to how exactly the questions matched the information sought from the passages. However, the TCDS group, who read the same texts and answered the same questions as the TC group, did not differ significantly from the Control, suggesting that the dialogic and thematic supports may have served as a scaffold for participants in that condition.

Any difference between groups disappears when considering participant performance on reading comprehension questions seeking inferential information. While participants in each group performed no differently, it was noted that the mean of the TCDS group was higher than both here. This might indicate some effect of dialogic

support on adolescents' abilities to understand the text at a deeper level where they are better able to comprehend information not explicitly stated.

When focusing on the second measure (intertextuality), the groups did not differ from each other on the number of textual references they made, either to the texts they have read or dialogic connections they could have potentially made to the prompt. In fact, the significant result for this outcome measure was the lack of evidence being used.

In spite of the explicit directions in TCDP testing to use evidence from the passages to read or their own lived experience and prior knowledge, participants largely did not reference any texts at all in their response. The percentage of participants who referenced any of the texts whatsoever was approximately 23% of participants. Looking within each TCDP group, the percentage of participants who used evidence was fairly consistent. In the TC group, 23% of participants used evidence. For the TCDS group, only 22% of participants used any evidence, and only 24% of the Control group. Regardless of TCDP group, the rate at which participants used evidence was indicative of a potential problem participants have in applying what they have read or experienced in life and knowing how to use that information to support a position.

Overall, the particular conditions present in each TCDP group did not affect the outcomes on reading comprehension and intertextuality. However, my observation regarding the ability of participants to comprehend the passages and make connections between them do point to larger issues regarding what we as English educators, teacher educators, and policy makers need to address in terms of reading comprehension and intertextuality, the implications of which I will discuss in chapter 5.

Chapter 5: Discussion

This study explored the effect of a dialogical approach to the reading situation on adolescents' ability to comprehend what they were reading and make connections across texts. In chapter 4, I presented my findings based on the Thematically Connected Dialogic Pedagogy (TCDP) testing. I described the effect of TCDP testing on overall reading comprehension, explicit and inferential question performance, and the participants' demonstration of their ability to connect texts in each TCDP testing group: Thematically Connected texts (TC) group, Thematically Connected Texts with Dialogic Support (TCDS) group, and a Control group which read texts with no overt thematic connection. In short, the data indicated that dialogic and thematic supports did not produce a statistically significant effect on participants' reading comprehension and participants did not demonstrate the ability to use texts they have read to support their thinking on a question of some immediate relevancy to their own lived experience.

These findings do not indicate a statistically significant benefit to TCDP testing in terms of the outcome measures for the study. However, I argue that the lack of significance from the ANOVA for overall reading comprehension does not eliminate the potential utility and efficacy of a dialogic approach to reading comprehension for adolescents in middle and high school English classrooms. Nor do I see participants' not demonstrating that they can make use of the texts they have read to support their thinking on a question of some immediate relevancy to their own lived experience during TCDP testing as an indictment of the dialogic approaches employed in the TCDP assessment. Instead, these findings can be used to support the assertion that there are significant problems that must be addressed in contemporary education in the United States.

Moreover, I argue that dialogical approaches to instruction have the potential to address these issues in ways that will prepare students to pursue their own interests in and beyond the classroom.

In this chapter, I support this position by discussing two key understandings I have developed from the findings of the study: a) participants need a varied approach to reading comprehension to assist in their ability to make meaning from texts, though the practices of connecting the texts thematically and providing dialogic support to reading may assist in comprehension and transfer gains between test and b) adolescents need focused instructional support in connecting the ideas or evidence of texts together to support larger ideas.

I will use the findings from this study to elaborate on the potential gains dialogical approaches to instruction could offer in terms of increasing adolescents' reading comprehension abilities. I will discuss the implications of this study for teachers, teacher educators, and administrators, and point to further research that could provide additional insight into the effect of a dialogic approach to reading could have on reading comprehension and intertextuality for adolescents. First, however, it is important to pause and fully consider the contexts and nuances of this study and the findings it produced.

Framing TCDP Testing

The TCDP testing conditions of using texts that connect thematically or using those same texts with some dialogic support did not affect the outcome of reading comprehension significantly. The failure of the TCDP testing conditions to produce a statistically significant result in terms of reading comprehension ability may seem to support an argument against a dialogic approach to instruction. However, I assert that

such an argument would ignore key nuances and context that are crucial to fully understanding this finding.

Working from the philosophical perspective that knowledge is created socially requires one to faithfully attend to the context in which knowledge is created. This perspective applies to empirical research. It is crucial to consider the context of an experiment to fully understand the results it produces. Thus, it is necessary to frame the finding that TCDP testing did not have a statistically significant effect on participants' reading comprehension abilities in the context of the experiment in which I derived it.

The form of dialogic pedagogy presented to participants in the study was a rudimentary implementation of this teaching philosophy that operates under the principle that the learners' lived experiences are fundamental to making meaning from new texts (Fecho, 2011; Stewart, 2019). Here, it is important to clarify that the TCDP testing was not an *instructional* intervention conducted over time. This study did not explore the effects of instruction that helped students learn to bring the texts they read into dialogue with their lives—a key aim of dialogical teaching (Fecho, 2011; Stewart, 2019). Instead, this experiment was focused on the effects of providing dialogic and thematic support in the context of an *assessment*. Thus, the experiment and the results do not undermine the potential of these approaches to support students in an instructional context. Furthermore, there were trends within the results that did indicate that dialogic and thematic support—even in the context of the TCDP testing—represent a promising approach to supporting adolescents' ability to read and make meaning from texts.

Implications of Trends within TCDP Results

In this section, I point to trends in the results that suggest the value of dialogic approaches. While there is no measurable significance between the groups in TCDP testing on *overall* reading comprehension, the mean for participants in the TCDS group was consistently higher than the TC group which read the same passages and answered the same questions. Again, it is important to consider that the context of this study was assessment, instead of instruction. The participants in the TCDS group were given ten minutes during TCDP testing to draw from the reservoirs of experience (Rosenblatt, 1995) they could use for meaning making immediately prior to all three readings. The study did not include a specific instructional intervention that prepared them for this task, yet the TCDS group outperformed the TC group as seen in Table 7 below.

Table 7

Reading Comprehension Means for TC and TCDS Groups

Reading Comprehension Variable	TC Group Mean	TCDS Group Mean
Overall Reading Comprehension Score	32.42	34.35
Explicit Reading Comprehension Score	16.67	17.67
Inferential Reading Comprehension Score	15.76	16.68

While the comparison of the means of the TC and TCDS groups never demonstrated a significant *p*-value, it is worth noting that the mean for the TCDS group was always higher than the TC group on the reading comprehension variables of TCDP testing.

In the instance of reading comprehension questions seeking explicit information, participants in the TCDS group performed well enough to remove any significant difference with the Control group, unlike the TC group which scored significantly lower

than the Control. As the only difference in testing conditions between the TC and TCDS groups was the use of dialogic support, the presence of an essential question for the TCDS group may explain the TCDS group's increase in performance over the TC group in answering reading comprehension questions looking for explicit information. Based on Kinstch & van Dijk's (1978) construct of understanding the propositions in the discourse of the texts, dialogic support offered by essential questions may have provided a method for participants in that group to bring their general knowledge to bear in helping them understand the semantic relationship among the propositions. This was a support the TC group did not have. Thus, the TCDS group's performance suggests there is value in dialogic support. For middle and high school English teachers, this may present a means to help students comprehend the textbase (Kinstch, 2004) of the texts read in their classes.

This finding suggests that additional time and focus on this approach could produce more significant improvement in adolescents' performance on reading comprehension given a more substantial use of dialogic support in reading instruction in the classroom.

Overcoming Vocabulary Differences

A closer look at Nelson-Denny Reading Test (NDRT) data related to the composition of the TCDP testing groups also reveals an interesting point to consider when examining the higher mean of the TCDS group. As discussed in chapter 3, I had an initial concern regarding the distribution of NDRT reading levels seen in the groups. The TC group deviated from a normal distribution according to the Shapiro-Wilk test I ran to explore the comparability of reading ability among the TCDP groups. While further

examination of the skewness and kurtosis of the data of each group did reveal that the groups met the threshold for normality required for the study, I ascertained that the underlying reason for the initial deviation indicated on the Shapiro-Wilk test lied in the vocabulary knowledge subtest of the NDRT. On average, the participants in the TC group had higher than expected vocabulary knowledge. Yet, when reading the same passages and answering the same questions as the TCDS group, the TCDS group consistently had a higher mean than the TC group on reading comprehension questions, on both explicit and inferential information.

Given the context of the TC group's vocabulary knowledge, vocabulary may not be a reliable predictor of reading comprehension in TCDP testing. Once again, there is no significant difference, but the TCDS group had a higher mean (See Table 7 above). It is reasonable to consider that the dialogic support the TCDS group had (and the TC group did not) may have contributed to this higher mean for reading comprehension scores. I will refrain from overstating any implications of that observation. However, I do find it intriguing enough to continue exploring the benefits of a dialogic pedagogy's effect on the ability of students to make meaning from the texts of the classroom. For teachers and teacher educators, it may also suggest that vocabulary instruction alone may not produce much in the way of reading comprehension improvement in the English classroom where the texts may not feature a high number of low frequency tier two and three vocabulary words (Beck et al., 2002; Coxhead, 2000).

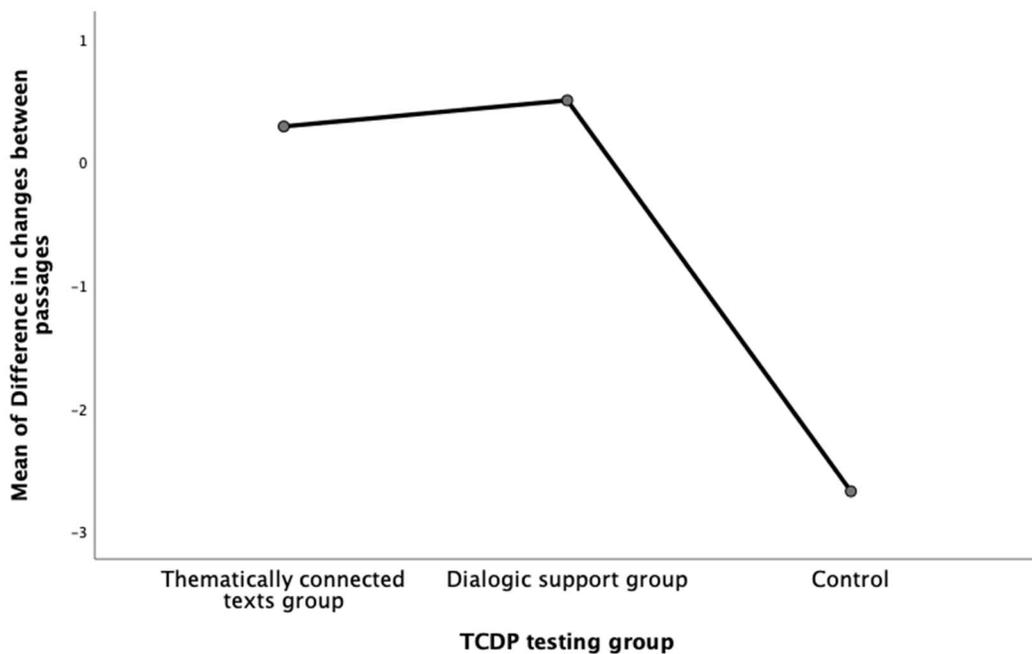
Dialogic Support & Connections Across Texts

The changes in the scores for the TC and the TCDS groups indicated that thematic connections and dialogic support provided some assistance in comprehending across

texts. As shown in chapter 4, the reading comprehension scores for the TC and TCDS groups changed by less than a point across the three passages. By comparison the Control group dropped over 2 points in reading comprehension as they moved across passages (see Figure 12 below).

Figure 12

Comparison of Difference in Changes Between Passages Means



The support provided in those conditions allowed the participants in the TC and TCDS groups to maintain a consistent level of comprehension as they read through the passages.

What may be seen in the TC and TCDS groups' performance is the benefit of a holistic envisioning where the texts being transacted with present some connection between for participants to bring their understanding of what issue in the world is being investigated to bear on the situation. The Control, whose performance dropped, did not have this benefit, which again suggests the value of dialogic approaches to reading comprehension instruction.

The Challenge of Applying Knowledge

Across all three testing conditions, participants did not demonstrate the ability to use texts to support their answers. As discussed in chapter 4, the overwhelming majority of participants did not use any evidence at all even though the directions in TCDP testing called for participants to answer a question regarding how others influence a person's identity using the readings or their own experience as evidence to support their answer. The persistence and consistency of this trend into the three groups of TCDP testing demonstrated that the supports did not affect the students use of evidence in their response.

The finding raises questions about whether the participants are able to read texts as sources to inform their opinion on a subject. The data suggest they cannot do so as over 70% of participants did *not* use evidence to support answers to the open-ended question in TCDP testing. What is even more interesting is that students did not even have many instances of using their own prior experience as examples to support their answers to the open-ended question. It is an interesting counterpoint to the stated expectation for adolescents that they should be able to synthesize multiple sources of information in their writing as stated in both the Virginia Standards of Learning (SOLs) and Common Core State Standards (CCSS) for English Language Arts. When all of these findings are considered in the larger context of the standardization that is prevalent in contemporary schooling (Au & Gourd, 2013; Cuban, 2009; Ravitch, 2014), it raises questions about whether students are leaving schools fully equipped to participate in social, civic, and economic life. If they are not, it is fair to conclude that schools are not preparing students to pursue their own lines of inquiry after they leave K-12 schooling.

Instruction Needs to Foster a Deeper Understanding of Texts

In chapter 4, I posited the possibility that the unanticipated significance between the TC group and the Control group could be related to how closely the wording of the question matched the wording found in the passages themselves. While it would take additional analysis to say something conclusive about the test questions, it does point to the current use of standardized testing in middle and high schools across the U.S. The current era of education is noticeably dominated by high stakes tests used to evaluate school performance. While there is some debate about what these tests actually show (Chubb & Ravitch, 2009; Nichols & Berliner, 2007; Ravitch, 2014), the presence of these tests do influence classroom instruction (Au & Gourd, 2013; Fecho & Hong, 2016). Presented with the pressures of showing performance on a standardized measure, classroom teachers will often resort to teaching methods and instruction that are more geared towards preparing students for high stakes tests than larger concerns about what skills, knowledge, or understanding will support students in their own pursuits after they leave PK-12 schooling (Au & Gourd, 2013; Fecho & Hong, 2016; Nichols & Berliner, 2007; Ravitch, 2014; Stewart, 2012).

I saw the results of this larger problem in the way schooling is conducted in the U.S. playing out in the performance of participants on the reading comprehension questions. On explicit questions, the Control group performed better than the two experimental groups which I suspect is rooted in how closely the question matches to a specific portion of the text. An approach to taking standardized tests which I was given myself as a high school teacher in North Carolina was to tell students to scan the text for key words from the question and look around the section of text where they found that

key word to locate the answer. The approach may help an adolescent improve a standardized test score, but it is debatable whether it improved their ability to take tests or actually comprehend texts and make meaning.

To illustrate this point, I would point to the Control group's performance on the reading comprehension questions seeking inferential information – no group significantly outperformed another. So, while the Control scored better on explicit questions, they fared no better than the other groups on inferential questions.

However, as I pointed out in chapter 4, the fact that the TCDS group's performance on explicit questions was not significantly different than the Control suggests that the addition of dialogic support may help students comprehend the information in the passage better. In constructing an understanding of the propositions in the discourse of the texts (Kintsch & van Dijk, 1978), dialogic support may have provided a method for participants in that group to bring their general knowledge to bear in helping them understand the semantic relationship among the propositions. Again, we see that dialogic support, by possibly improving adolescents' comprehension of the textbase (Kintsch, 2004), may present a means for them to have a more robust understanding of the implied meaning in a text.

The lack of significance between any groups on inferential questions raises concerns regarding how well students recognize those semantic relationships that are not directly stated which draws forth concerns about whether students could pursue their own inquiry away from the classroom. While the most immediate implication would be for classroom teachers to help students develop inferencing skills, part of the responsibility of ensuring that adolescents are receiving reading instruction that helps develop their

ability to pursue their own inquiries falls to the teacher educators who prepare teachers for the field. Administrators must play a part here as well. They must find ways to give teachers room to do this kind of work. If we, as a society, deem it necessary to produce individuals capable of finding answers away from the support of their teachers and the formal institution of school, we must be willing to re-think how we conduct schooling and prepare teachers for the classroom. The findings from this study, particularly when considered against the larger backdrop of current trends in contemporary education, raise two key concerns.

The first concern is that adolescents might not be able to read at a level that is conducive to connecting the ideas from one text to what they already know. People who read well are involved in an iterative process of understanding the current proposition they are reading in the text while resolving how it adds or modifies the larger understanding of the text, which, in turn, informs their ongoing understanding of each proposition in the text (Kintsch & van Dijk, 1978). That skilled reader will be using their knowledge to refine their understanding of the text and situate the knowledge they gain from the text with what they already know (Kinstch, 2004). If adolescents are not seeing how ideas from the texts they read connect, I have little faith that they will be able to use those texts to inform their opinion on any subject matter that is of interest to them.

The second concern is of broader import in adolescents' ability to communicate what they know to be true to others effectively. In a democratic society, the aims of education are to equip those members of the society to participate fully in the functioning of that democracy (Dewey, 1916). When I was teaching high school in North Carolina, students would often argue with me that the things they learned in English (and

sometimes school at large) were not anything they could see themselves using outside of the classroom. My argument then was that the only person that would always know what was in their interest and what mattered to them was themselves. I would point out that they would need to know how to advocate for themselves well as is it was not a given that anyone would be there to advocate for them. This answer was one that I found made sense to students and would help them see that the work that we did in an English classroom served a purpose beyond writing one paper or reading one novel.

Participants in this study struggled to demonstrate that they could use references to texts in a manner that supported their response to a larger philosophical question, which mirrors what I saw as a classroom teacher. This finding troubles the idea that schools are actually preparing students to read and comprehend texts in a manner that allows them to use what they read to construct sound arguments. The lack of references to the texts that participants read in TCDP testing points to the importance of enhancing instructional approaches which help students learn how to find evidence from multiple texts and apply them to a larger inquiry. Dialogic pedagogy presents a framework around which teacher educators can build that instruction, using the individual relevance and meaning students make from the texts to see how that evidence can be used to inform their understanding of a larger question.

Suggestions for Stakeholders

While the TCDP testing did not produce a statistically significant effect on participants' reading comprehension abilities, the trends in the data I have discussed in this chapter do suggest that teachers, teacher educators, and administrators can help address the difficulties that adolescents struggling with reading face in the classroom by

employing a dialogic approach to teaching in the classroom. I would not argue, nor have I, that it is the lone solution that will address the challenges encountered by adolescents who may struggle with reading, but it does provide a means for the knowledge adolescents acquire through social interaction to complement their cognitive processes to comprehend what they read (Alvermann et al., 2013). What can stymie efforts to make social interaction a central instructional principle is the pressure novice and experienced teachers feel to teach in a way which prioritizes standardized test performance over instruction that centers learning on the student (Fecho & Hong, 2016; Stewart, 2012; Stewart et al., 2020). What is needed is a recognition that constraints presented by measures of accountability for schools constrain instruction to a narrow focus and prevent teachers from using all tools available to support student learning. When teachers, teacher educators, and administrators consider individual students' lives and needs as they define learning, space is created for approaches to instruction and assessment that rely on multiple tools that can support literacy development. In this way, each group can live out the goal of advocating for the needs of all students.

Suggestions for Teachers

Teachers who wish to engage students in literacy development that can help them succeed in and beyond the classroom by working from the dialogic stances that this study showed have some potential value must find ways to work within the constraints of the system to meet student needs. When those teachers feel like standardized school policies are causing them to lose control, they must, as Fecho (2011) argued, steer into the skid. Perhaps the biggest obstacle for classroom teachers in implementing instruction which best helps adolescents in making meaning from the texts read in middle and high schools

is the tendency for teachers to replicate the methods they experienced as students (Britzman, 2003). When I was teaching in North Carolina, every grade-level English class had a specific McDougal-Littell grade-level text that organized poetry, speeches, excerpts from larger works of fiction and nonfiction, and short stories by broadly defined categories. My initial years of teaching high school focused on juniors and American literature. The categories in the textbook I had were organized into broad periods named things like “Romanticism,” “Early American Literature,” or “Native American Folktale and Myth.” As a helpful point in the pages of supplemental matter included in the textbook would be a question like, “How do your ideas on liberty frame your view of the world?” The teacher’s edition of the textbook would include the helpful hint to have students talk with a peer or group for a few minutes or write a response in a journal entry. The approach seemed aimed at activating prior knowledge prior to reading, a practice demonstrated to recall relevant information from long-term memory to assist in comprehending material (Posner & Snyder, 2004). Yet these attempts to bring what students knew and experienced in the world were siloed into discrete reading experiences. By the next reading in the textbook, a new essential question would be posed that would be specific to that particular reading but would have little bearing on what came before and what came afterwards. Further, any connections to the manner in which the texts were organized into the section were tenuous at best.

If, again, this is to be part of effective instruction for adolescents to comprehend what they read better, then it needs to be part of the way in which we plan instruction for adolescents in the English classroom. While the textbooks teachers have access to provide some suggested organization of texts around some unifying category, those

categories often oversimplify the nature of the content in order to get them to fit within that broad organizer (Spiro et al., 1987) and do not necessarily represent the best way to get students to transact with the text and make meaning in a manner that shows relevance for the world that they know and interact with on a daily basis.

A better approach would be to recognize the teacher as the professional who possesses expertise in the content area, knowledge of sound pedagogical practice, and familiarity with the students, their strengths and weaknesses, and the community in which they live. Such an individual would be ideally suited to the task of identifying and organizing the texts of a unit around an essential question that facilitates true meaningful inquiry into the world around the students in their class (Smagorinsky, 2008; Smagorinsky et al., 2008).

What the change in performance between reading tasks may indicate for teaching is that students perform better when there is a connection between the texts that allows them to use those texts to address larger issues. It is a note to teachers that students may comprehend class readings better if they do not perceive the reading event as an isolated incident, which, unfortunately, is the approach seen in the standardized tests that are used for school achievement across the country. Those tests present reading situations isolated from a meaningful context for students and ask multiple-choice reading comprehension questions of adolescents which take no stock in the unique perspective afforded the adolescent based on their life experience.

Rather than promote reading as a series of isolated activities, I point to the need for English teachers to present the texts of the classrooms as tools for inquiry alongside the unique experience and knowledge of the students to be used to engage in meaningful

inquiry into the world that is around them, both at a local level and globally. It is an approach that mirrors the standards set forth both in the SOLs of Virginia and the Common Core State Standards adopted by many states. Yet this way of teaching would inherently show relevance to students as they connected the ideas of the classroom and their own lives into larger themes and concerns.

Suggestions for Teacher Educators

Teacher educators who advocate for dialogic approaches to literacy development must take care to consider the realities of the contexts in which their teacher candidates will go to work. They must think carefully about how they will provide future teachers with effective means of living out dialogic approaches within the current paradigm of education. The task for teacher educators is to support teachers in helping their students utilize their own experience and prior knowledge to make meaning from the texts of the classroom and use them to pursue questions that have a bearing on the world they know – to put into dialogue the texts of their lives with the texts of the classroom even while working under the constraints of a high-stakes testing environment (Fecho & Hong, 2016).

Teacher educators need to find ways to support classroom teachers in the manner of how they can plan and implement instruction that engages their students' unique understandings and helps them develop as readers who can read the texts of the classroom for meaning beyond the literal meaning of the text, let alone searching texts to find isolated answers. This would involve teacher educators designing and implementing professional development that introduces, modifies, or reinforces existing practices of English teachers in the method of helping students read and make meaning from the texts

of the classroom beyond a superficial reading aimed at regurgitating bits of information for a disconnected and inauthentic purpose.

However, that training and support would need to be cognizant of the real pressures that classroom teachers face in preparing students for high stakes tests and the ramifications for their school and their own careers for substandard performance.

Whatever professional development is implemented would have to be something which can demonstrate having results for their students in terms of reading the texts of the classroom more critically while also preparing them to show growth or competency on state standardized tests taken at the end of the course.

Additionally, efforts must be maintained and reinforced for teacher education programs in helping teacher candidates and novice teachers hold to the practices and theories undergirding their practice that make effective educators. As is often the case, teachers early in their career, either during their student teaching semester or in their first few years, abandon the techniques and practices advocated by their teacher preparation programs when faced with the rigors and stresses of teaching fulltime in the standardized testing era (Barnes & Smagorinsky, 2016; Feiman-Nemser & Buchmann, 1985; Stewart, 2018). What early career teachers need from teacher educators is consistent support and assistance in seeing the applicability of the theories and practices introduced to them in their teacher education programs to the experiences they have and struggle with in their classrooms, either during student teaching or in their initial classroom as a new teacher.

One avenue that has had success in demonstrating the efficacy of the theories and practices of their teacher education programs when facing the rigors of teaching in the standards-era classroom is the problem-posing seminar during their student teaching. The

problem-posing seminar is a space where teacher candidates can bring the struggles from their teaching placements to their peers in student teaching and present them for the group to problem-solve the issues being faced, pointing them to where those practices advocated by their teacher preparation program apply to the situation (Stewart et al., 2020). This approach can help those novice teachers navigate the perceived gap between the theory and practice of classroom teaching (Feiman-Nemser & Buchmann, 1985) and, through implementation of the advice and reflection on its effect on the issues they face, build a sense of efficacy on their burgeoning teaching practice (Hill et al., 2019).

Teacher educators need to be cognizant of the demands placed on practicing teachers and find avenues to support efforts to continue implementing instruction that assists students in meaning making and pursuing their own lines of inquiry. These avenues should point to those effective practices espoused in their teacher education programs and reflect what research demonstrates develops effective adolescent readers.

Suggestions for Administrators

Though encouraging teaching from a dialogic stance may seem to be at cross-purposes with improving performance on standardized measures, administrators who wish to create a school environment that supports the needs of teachers and students must be bold enough to try to make changes. Given their roles in implementing national and state-level policy mandates, administrators must, of course, be able to call upon research to support any changes they wish to make. The trends in this study provide a basis for policies that would make room for a dialogic approach to be implemented as part of the instructional tools available to teachers to support adolescents comprehending classroom texts.

Rather than allowing markers of achievement obtained solely through standardized testing define what classroom instruction looks like, administrators should continue to push for space for teachers to teach in ways which makes students pursuing inquiry meaningful to them central to classroom instruction (Fecho, 2004). In-depth learning that attends to the learning needs of the specific students in class and promotes instruction which responds to their concerns, interests, and cultural resources better prepares adolescents for the cognitive demands typical of employment and full participation in society (Darling-Hammond, 2006). Administrators should communicate the importance of bringing the students' lives into dialogue with the content of the classroom as way to build proficiency with the standards and provide academic rigor to push student achievement (Fecho & Hong, 2016).

In terms of support and development, this means that administrators should support new, and continuing, teachers as they develop in their careers. Recognizing that novice teachers will tend to move away from the theories and effective practices from their teacher education programs (Feiman-Nemser & Buchmann, 1985), administrators should encourage novice teachers to return to those theories and practices, and reflect on how their implementation can be improved to produce better results in their classroom. Providing novice teachers opportunities to participate with other teachers in a professional learning community to address problems experienced in their teaching is means by which teachers can learn to better implement effective practices and improve their perception of their self-efficacy in teaching (Hill et al., 2019; Stewart et al., 2020). Teachers who have the opportunity to analyze collaboratively issues adolescents are having can better address the literacy needs of adolescent students, improving reading

outcomes in class performance *and* standardized test scores (Lai et al., 2014). In short, encouraging teachers to center instruction on bringing students' lives into dialogue with class content and providing space for teachers to collaborate improves student outcomes, both in terms of student learning and standardized measures of performance.

The Importance of Dialogue

It is important to remember that administrators are working within the constraints of a system much the same as teachers and teacher educators who prepare future teachers for the realities of teaching in the current era. These stakeholders in education must avoid casting each other in adversarial roles and find ways to work together to better serve the students in classrooms. Open lines of communication are crucial. Administrators must work to create a culture within their schools that helps teachers feel confident about voicing their concerns about policies they feel are inhibiting their efforts to serve students. Teachers must be willing to share their professional knowledge and bring research-based suggestions to their administrators when they want to try something different. Teacher educators must be open to learning from practicing teachers and administrators about how they can prepare teachers for the realities of current school contexts.

Explicit direction on practical means in creating such open lines of communication is outside the scope of this study, though my experience in this study being in schools and facilitating discussions with teachers and administrators at the school and district level regarding reading instruction have shown potential for fostering meaningful dialogue among these stakeholders. Fostering this dialogue is important as this study pointed to important concerns about the effect of the current educational

paradigm in U.S. schools. These concerns, particularly as they related to supporting adolescents' literacy development and their ability to use and communicate their unique understanding of the world, cannot be addressed by any single stakeholder group. The potential of dialogic support to contribute to adolescents reading outcomes that trends in the data from this study point cannot be realized without collaborative dialogue among teachers, teacher educators, and administrators.

Suggestions for Future Research

While on the discussion of adolescents ability to use and communicate their unique understanding of the world, I would like to mention something that stood out to me in a number of the responses to the open-ended question in the TCDP testing that is possibly unrelated, or at least tangential, to my question about the effect of a dialogic approach to reading comprehension and intertextuality of adolescents. One persistent trend I noted in those responses was the use of a hypothetical third person or group, usually referenced as “a person” or “they” or the use of the second person to illustrate their point. The choice in this voice to respond to a question about how other people influence a person's identity with the encouragement to use personal experience to illustrate their point is surprising. The format of the test provided some basis of comparison as the TCDS group were asked to respond to the question of “What makes you who you are?” prior to reading any passages or answering any reading comprehension questions. The responses to this initial question before launching into a more recognizable academic test yielded some very personal responses from students which did not comport with my initial assessment of participants not wanting to share personal information with someone they might not know. The juxtaposition of the two

types of response to the question before and at the end of the test is interesting. For some reason, there seems to be an inclination by participants to depersonalize their second response after participating in an academic test. What I would want to explore is whether the context of academic testing acts as a signal for students to avoid employing their personal experience and perspective in their writing even when directed to do so. If so, it would suggest that school sends a message about the value of the student's experience in school.

The inclusion of the adolescent's experience I see as paramount to their ability to make meaning from what they are asked to do in school. Though I did not see any overall reading comprehension gains in this study, there are indications that continued use of dialogic support could produce meaningful results given that the application of dialogic pedagogy involves a teaching stance which encourages a willingness to challenge a central meaning and invite multiple perspectives into the classroom (Stewart, 2017). A next step I see for the work I have done here is to partner with a middle or high school teacher and implement a dialogic pedagogy over a longer duration to foster a mindset of embracing the tension between centralizing and centrifugal forces (Bakhtin, 1981). Such an endeavor would seek to examine the level of understanding displayed by participants on the texts of the classroom and also seek the input of the perceptions of both students and teachers on the experience of engaging in a dialogic pedagogy for the duration of the study. With the data from such a study, I would be able to examine a more robust implementation of a critical dialogic pedagogy (Fecho, 2011; Stewart, 2019) and evaluate any contributions a sustained effort to invite the lived experiences of adolescents into the classroom might have on their depth of comprehension of classroom texts and the

meaning that adolescents make when all the texts are presented as informing one another as they address a larger question which bears relevance to their own lives.

It is also of interest to me to replicate the study that I have completed here with a focus on how scores change between multiple passages. One area of interest that I am fascinated by is the relative stability of the TC and TCDS groups' scores when moving from passage to passage in TCDP testing when compared to the Control. As mentioned, it does suggest that the conditions of thematically connecting the texts or providing dialogic support help students perform consistently across multiple passages. However, I would like to repeat the process while changing the passages found in each testing group. It would also be worthwhile to retest after a duration on their understanding of the material as Spiro et al. (1987) found that participants in their study retained knowledge they had gained from reading better if they formed for themselves an understanding of how the texts connected.

Another avenue I see as worth pursuing in the future is using the data I have collected here to further inform and refine the TCDP test. Creating the test from the outset was a labor intensive process which required reading several different passages based on an initial Lexile level, identifying a serviceable passage which contained a vignette or episode in the narrative which I could frame reading comprehension questions seeking explicit and inferential questions around, and then discovering an additional passage of similar quality that I could draw a theme between the content of each. All passages, including those in the control, would also need to be similar in terms of word and syntactic complexity, cohesion, and general readability (such as Lexile or Flesch Reading Ease measures).

In the current form of the TCDP test, these measures are as close to equal as I could make them over the months I spent reading through texts and trying to find authentic passages drawn from published narrative fiction. The results of the ANOVAs and ANCOVAs on overall reading comprehension, explicit reading comprehension, and inferential reading comprehension discussed in chapter 4 present the possibility that some feature of either the passages or the questions may have skewed results on explicit question performance and may necessitate further examination and refinement of the instrument. For instance, the mean sentence length of some passages is longer on average than others which, when thinking about comprehension at the microstructure level, could affect an adolescent reader's ability to form an understanding of a sentence or clause. Further, while thinking about the cohesion of the passage, the frequency with which certain words appear, especially words that are referenced in comprehension questions, could influence the ability of adolescents to comprehend the passage. One approach to assessing what variables in the text are affecting understanding would be to change the texts from how they appear in published form to create uniform passages in terms of sentence length and word frequency. The resulting passages could then be used in testing to assess the affect each condition made to comprehension, both explicit and inferential.

However, while that step may further inform researchers about the effects of text features on adolescent reading comprehension, it may not be a usable approach for classroom teachers who sometimes are not able to choose which texts they teach in the classroom. There is some merit in the approach I have used here in selecting texts that exist published in the form as shown in the TCDP passages. The format perhaps better replicates conditions teachers working with adolescents in classrooms across the country

work under. Considering the real constraints within which classroom teachers often design instruction, a different, and perhaps more directly applicable, revision to TCDP testing would be to address other features of the text other than measurable syntactic and word variables. One approach would be the inclusion of more young adult passages in order to examine the effect on comprehension when the context and content of the passage more closely aligns with the viewpoint and experiences of adolescent readers or presenting texts that utilize familiar dialects. Perhaps pairing passages from more canonical works with passages that connect more directly to adolescents' lived experiences could better facilitate their use of prior knowledge in comprehending the readings.

Further, I am curious to see how an extended use of a dialogic approach to instruction paired with specific strategies to help adolescents draw evidence from what they read can affect their ability to support their efforts in addressing larger inquiries beyond the scope of a single text. What is suggested to me from this study is that students need some help in seeing how different sources, possibly including multimodal texts, can be used to strengthen their own understanding and more clearly communicate their ideas to others. A dialogic pedagogy would provide a teaching stance that would take the focus off of what an individual text states and provide instead a framework for using the texts of the classroom as tools to further their own inquiry into a larger question using strategies designed to scaffold evidence collection and use in composition. What would be of particular note alongside the evaluation of how adolescents do with this approach is to investigate their own perceptions of their ability to effectively conduct inquiry using multiple texts.

Conclusion

In review, the use of thematically connected texts and dialogic support in this study do not increase the overall reading comprehension of students significantly. Participants in the two experimental conditions do not differ significantly on their demonstrated ability to reference texts they have read when prompted to respond to an essential question touching on the themes of the texts, though the larger concern there may be the ability of participants to use evidence at all. Yet I would put these results in the larger national picture where reading ability for U.S. students in 8th grade (NAEP, 2015, 2017, 2019) and 12th grade (NAEP, 2015) have been fairly stagnant. If growth in national reading ability for adolescents have been stagnant over the last 20 years, it may mean that a multipronged approach to addressing reading ability with students in middle and high school is needed.

In my view, this study raises two important concerns regarding reading instruction for adolescents in middle and high schools in the U.S. The first concern is that the standardized tests being used to measure adolescents' abilities to comprehend what they read are not providing a robust picture of what their actual capabilities for reading to inform and communicate their understanding are. What is evident from the study is that students do well at finding explicit answers, are less successful at inferring information, and do not demonstrate that they can apply what they read pointing to, at best, a shallow understanding of the text.

Their facility with finding answers to questions seeking information explicitly stated in the text raises my second concern – students have developed the ability to game reading comprehension tests to compensate for struggles in reading. The concern raised

by this project over adolescents developing compensatory mechanisms for when they struggle with reading lies with the difficulty those mechanisms present in ascertaining where they need additional support. Test taking skills such as searching for words from question stems in a text can help students answer questions on standardized tests. However, their test scores do little to pinpoint why they are able to answer those questions or what might be causing them to struggle when they cannot. While those mechanisms provide short-term success on tests, they do little to inform educators on the variety of needs that may be present in the classroom and prevent the delivery of instructional assistance which could address those needs. Rather than relying on adolescents selecting predetermined answer choices to unconnected reading passages, an approach which asks the adolescent to use what they know of the world to comprehend texts and apply their understanding in a meaningful way could tell teachers, teacher educators, and administrators much about the facility students have in making meaning from class texts.

The intervention of introducing thematically connected texts and dialogic support to the reading situation can be part of an orchestrated strategy to support meaning making in the classroom. One perspective of the lack of significance between conditions suggest that there is little harm in implementing a dialogical approach in the classroom. However, the trend of higher means in reading comprehension for participants who received even a rudimentary dialogic support suggest bringing students' lives into dialogue with the texts of the classroom may present an avenue to improving their understanding of those texts. When I think about this, I am reminded of the slew of TV commercials for sugary breakfast cereals that I watched (and ate) as a child. One phrase was consistent

throughout these commercials – the announcer would always mention that the cereal was “part of a balanced breakfast.” When I think about the reading comprehension supports introduced in this study, they, to me, fit in a similar way. They may not be the whole answer to correcting struggles that adolescent readers have in making meaning from the texts they are reading in school, but they present the option of being part of the answer that helps students comprehend what they are reading better and consistently.

When I first decided to pursue my Masters in Reading and Writing, a degree which conferred a reading specialist licensure, I was motivated primarily by the presence of a student who sat in my junior American literature class who was pleasant and positive in school yet could not decode words. As that student was a junior, I knew that it was likely that he would not learn to read before he graduated high school by “just scraping by,” especially considering I had no knowledge of how to teach someone to read to help him. Granted, this is an extreme example used more for effect than a true representation of where students are nationally, but I do think of that student when I reflect on national statistics on adolescent reading.

In a society where the contracts, laws, and much of knowledge is written, to be capable to fully participate in society requires that one is able to use their ability to read, along with their other literate practices, to draw connections between texts and advocate for themselves in a rapidly evolving society (Boggs et al., 2018). Further, in a democracy, the education of the individual is essential for that democracy to function (Dewey, 1916). As Dewey pointed out, as the complexity of society increases so too does the need for citizens of that society to receive formal education to fully participate. To know that some are being left behind and yet do nothing or persist in something we can demonstrate

does little to address the issue, presents the danger of slipping away from democratic ideals where every voice matters.

When I think about all those students who are “just scraping by” or getting left behind in schools, I am convinced that students and their lives should be the lodestar the we depend on to inform every choice we make. In chapter 1, I discussed the utility of students making connections between the texts of the classroom and the texts of their world as an under-utilized avenue for students to make meaning from the texts they read in class (Fecho, 2011; Lai et al., 2014; Luke et al., 2011). Implicit in that assertion is the argument that instruction has not fully connected to the lives of the students in American schools. Thus, the inclusion of instructional practice centered on a dialogic pedagogy is a teaching stance for which I advocate even though the results of TCDP testing do not offer the statistical significance that one might use to call dialogical approaches a silver bullet.

If, as I heard during my time as a high school English teacher, student-centered instruction leading to life-long learners is a goal for teaching, what I am arguing for is the lived experiences and knowledge of the students as the entry into curricula. However, if we, as teachers, teacher educators, and administrators, proceed with instruction that is defined outside the context of the people being taught, we are defining the meaning students will make, and instruction devolves into a simulacrum of inquiry where the final understanding is prescribed, the meaning is assumed to be universal, and there is no creation of novel understanding (Bakhtin, 1981). The message to students, while perhaps not expressly stated, is clear: meaning is given and not made; they are irrelevant to the process. Education in such a paradigm is then a ready tool for oppression, denying the voice of those who do not control the institution (Freire, 1970). Yet if we proceed in

educating people with their lives as the basis for learning in class, teachers position themselves better to be the more knowledgeable peer (Vygotsky, 1987) who guides students in their own discovery of knowledge. In an interview published in the 2018 reprint of Freire's *Pedagogy of the Oppressed* (1970), Noam Chomsky stated, "[Students] should recognize that education is a process of self-discovery, of developing one's own capacities and pursuing interests and concerns with an open and independent mind, all in cooperation with others" (Interviews with Contemporary Scholars section). If we wish students to possess the capability to pursue inquiry and participate in a democratic society, then we must be careful in how we define our roles as educators; rather than being over our students we need to be with our students as collaborators in learning (Freire, 1970).

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Appendix A

Thematically Connected Dialogic Pedagogy (TCDP) Test Packets for the Thematically Connected (TC), Thematically Connected Dialogic Support (TCDS), and Control Groups

Each test packet has the corresponding group noted in parentheses after the heading for ease of reference. These parenthetical denotations were not present on the test packets given to participants.

A Passages Test Packet (TC Group) Directions

1. Please do not begin the test until directed to do so.
2. You will be asked to read three passages taken from novels. Each passage is preceded by a short statement for you to read about the novel to help you understand the context of the passage.
3. Following each passage, you will be asked to answer four comprehension questions with a written answer that fully addresses the question in a few sentences.
4. Once you have answered the questions for a passage, you may continue to the next passage.
5. Following all passages and questions, you will be asked to compose a longer response to an open-ended question.
6. You have been provided an answer sheet to record all your answers to the questions on this test. Please do not mark on the test.

Passage 1: Excerpt (a) from *The Handmaid's Tale* by Margaret Atwood

Context: In the novel *The Handmaid's Tale*, the United States has become a theocracy, a country ruled by the church, called Gilead. In this new country, Commanders and their wives live at the top of society, served by Marthas, women whose sole purpose is to do housework like cooking and cleaning, and Guardians, men who perform manual labor and serve as a police force. To create its version of a perfect society, this new religious country has given strict rules as to what is acceptable behavior for people. However, this society is suffering from a serious problem. Besides constant warfare with neighboring countries, most people in Gilead are unable to have children. Handmaids, women able to have children, are forced to reproduce with Commanders who are unable to have children with their wives. Handmaids are stripped of their individual identities and made an extension of the Commander to whom they are assigned. Handmaids have their previous names taken away and are given names made by combining the word “of” and the first name of their Commander to indicate which Commander they belong to. The narrator, Offred, is a Handmaid. Her only purpose in this society is to have a baby, though she remembers a life before the new society started. In this passage, she is beginning one of the few activities she is allowed to do away from her Commander’s compound where she lives – a trip to the store to buy groceries.

Passage 1

Doubled, I walk the street. Though we are no longer in the Commanders' compound, there are large houses here also. In front of one of them a Guardian is mowing the lawn. The lawns are tidy, the facades are gracious, in good repair; they're like the beautiful pictures they used to print in the magazines about homes and gardens and interior decoration. There is the same absence of people, the same air of being asleep. The street is almost like a museum, or a street in a model town constructed to show the way people used to live. As in those pictures, those museums, those model towns, there are no children.

This is the heart of Gilead, where the war cannot intrude except on television. Where the edges are we aren't sure, they vary, according to the attacks and counterattacks; but this is the center, where nothing moves. The Republic of Gilead, said Aunt Lydia, knows no bounds. Gilead is within you.

Doctors lived here once, lawyers, university professors. There are no lawyers anymore, and the university is closed.

Luke and I used to walk together, sometimes, along these streets. We used to talk about buying a house like one of these, an old big house, fixing it up. We would have a garden, swings for the children. We would have children. Although we knew it wasn't too likely we could ever afford it, it was something to talk about, a game for Sundays. Such freedom now seems almost weightless.

We turn the corner onto a main street, where there's more traffic. Cars go by, black most of them, some gray and brown. There are other women with baskets, some in red, some in the dull green of Marthas, some in the striped dresses, red and blue and green and cheap and skimpy, that mark that women of the poorer men. Econowives, they're called. These women are not divided into functions. They have to do everything; if they can. Sometimes there is a woman all in black, a widow. There used to be more of them, but they seem to be diminishing.

You don't see the Commanders' Wives on the sidewalks. Only in cars.

The sidewalks here are cement. Like a child, I avoid stepping on the cracks. I'm remembering my feet on these sidewalks, in the time before, and what I used to wear on them. Sometimes it was shoes for running, with cushioned soles and breathing holes, and stars of fluorescent fabric that reflected light in the darkness. Though I never ran at night; and in the daytime, only beside well-frequented roads.

Women were not protected then.

I remember the rules, rules that were never spelled out but that every woman knew: Don't open your door to a stranger, even if he says he is the police. Make him slide his ID under the door. Don't stop on the road to help a motorist pretending to be in trouble. Keep the locks on and keep going. If anyone whistles, don't turn to look. Don't go into a laundromat, by yourself, at night.

I think about laundromats. What I wore to them: shorts, jeans, jogging pants. What I put into them: my own clothes, my own soap, my own money, money I had earned myself. I think about having such control.

Now we walk along the same street, in red pairs, and no man shouts obscenities at us, speaks to us, touches us. No one whistles.

There is more than one kind of freedom, said Aunt Lydia. Freedom to and freedom from. In the days of anarchy, it was freedom to. Now you are being given freedom from. Don't underrate it.

In front of us, to the right, is the store where we order dresses. Some people call them *habits*, a good word for them. Habits are hard to break. The store has a huge wooden sign outside it, in the shape of a golden lily; Lilies of the Field, it's called. You can see the place, under the lily, where the lettering was painted out, when they decided that even the names of shops were too much temptation for us. Now places are known by their signs alone.

Lilies used to be a movie theater, before. Students went there a lot; every spring they had a Humphrey Bogart festival, with Lauren Bacall or Katherine Hepburn, women on their own, making up their minds. They wore blouses with buttons down the front that suggested the possibilities of the word *undone*. These women could be undone; or not. They seemed to be able to choose. We seemed to be able to choose, then. We were a society dying, said Aunt Lydia, of too much choice.

Passage 1 Questions

1. What kind of person does the narrator, Offred, say used to live in the neighborhood she is walking through?
2. On her walk to the store, what is something Offred remembers from her life before being a Handmaid?
3. What does Offred imply the new society protects women from?
4. Thinking about habits being hard to break, why does Offred consider calling her dress a habit a good name for it?

Passage 2: Excerpt (b) from *The Handmaid's Tale* by Margaret Atwood

Context: This passage follows directly after the previous passage in the novel *The Handmaid's Tale*.

Passage 2

I don't know when they stopped having the festival. I must have been grown up. So I didn't notice.

We don't go into Lilies, but across the road and along a side street. Our first stop is at a store with another wooden sign: three eggs, a bee, a cow. Milk and Honey. There's a line, and we wait our turn, two by two. I see they have oranges today. Ever since Central America was lost to the Libertheos, oranges have been hard to get: sometimes they are there, sometimes not. The war interferes with the oranges from California, and even Florida isn't dependable, when there are roadblocks or when the train tracks have been blown up. I look at the oranges, longing for one. But I haven't brought any coupons for oranges. I'll go back and tell Rita about them, I think. She'll be pleased. It will be something, a small achievement, to have made oranges happen.

Those who've reached the counter hand their tokens across it, to the two men in Guardian uniforms who stand on the other side. Nobody talks much, though there is a rustling, and the women's heads move furtively from side to side: here, shopping is where you might see someone you know, someone you've known in the time before, or at the Red Center. Just to catch sight of a face like that is an encouragement. If I could see Moira, just see her, know she still exists. It's hard to imagine now, having a friend.

But Ofglen, beside me, isn't looking. Maybe she doesn't know anyone anymore. Maybe they have all vanished, the women she knew. Or maybe she doesn't want to be seen. She stands in silence, head down.

As we wait in our double line, the door opens and two more women come in, both in the red dresses and white wings of the Handmaids. One of them is vastly pregnant; her belly, under her loose garment, swells triumphantly. There is a shifting in the room, a murmur, an escape of breath; despite ourselves we turn our heads blatantly, to see better; our fingers itch to touch her. She's a magic presence to us, an object of envy and desire, we covet her. She's a flag on a hilltop, showing us what can still be done: we too can be saved.

The women in the room are whispering, almost talking, so great is their excitement.

"Who is it?" I hear behind me.

"Ofwayne. No Ofwarren."

"Showoff," a voice hisses and this is true. A woman that pregnant doesn't have to go out, doesn't have to go shopping. The daily walk is no longer prescribed, to keep her abdominal muscles in drill. She could stay at her house. And it's dangerous for her to be out, there must be a Guardian standing outside the door, waiting for her. Now that she's the carrier of life, she is closer to death, and needs special security. Jealousy could get her, it's happened before. All the children are wanted now, but not by everyone.

But the walk may be a whim of hers, and they humor whims, when something has gone this far and there's been no miscarriage. Or perhaps she's one of those, *Pile it on, I can take it*, a martyr. I catch a glimpse of her face, as she raises it to look around. The voice behind me was right. She's come here to display herself. She's glowing, rosy, she's enjoying every minute of this.

"Quiet," says one of the Guardians behind the counter, and we hush like schoolgirls.

Ofglen and I have reached the counter. We hand over our tokens, and one Guardian enters the numbers on them into the Compubite while the other gives us our purchases, the milk, the eggs. We put them into our baskets and go out again, past the pregnant woman and her partner, who beside her looks spindly, shrunken; as we all do. The pregnant woman's belly is like a huge fruit. *Humungous*, word of my childhood. Her hands rest on it as if to defend it, or as if they're gathering something from it, warmth and strength.

As I pass she looks full at me, into my eyes, and I know who she is. She was at the Red Center with me, one of Aunt Lydia's pets. I never liked her. Her name, in the time before, was Janine.

Janine looks at me, then, and around the corners of her mouth there is the trace of a smirk. She glances down to where my own belly lies flat under my red robe, and the wings cover her face. I can see only a little of her forehead, and the pinkish tip of her nose.

Passage 2 Questions

1. Who arrives at the store Milk and Honey that is “an object of envy and desire” for the Handmaids in line?
2. Why do the Handmaids try to look at the faces of the other Handmaids in line at the store?
3. Why do you think the Handmaids are required to move only in pairs?
4. What enjoyment does from Janine get from coming to the store?

Passage 3: Excerpt from *The First Part Last* by Angela Johnson

Context: The narrator, Bobby, is a sixteen-year old man raising his infant daughter on his own while trying to complete high school in New York. He struggles with adjusting to how much of his life now revolves around his baby.

Passage 3

I hold my baby in a waiting room that I used to sit in, way before I had her.

The nurse is the same one that has been smiling at me since my mom used to carry me in on her hip. The corkboard by the water fountain is still filled with pictures of kids, most laughing. The play area still has beat-up stuffed animals and cans of crayons pushed up against building blocks, dolls, and trucks.

I remember sitting here with Mary when I had a fever, needed to get stitches out, had to get a booster shot, fell into some poison ivy on vacation, and about a thousand other things that my pediatrician, Dr. Victor, took care of.

Now I'm sharing her with my daughter 'cause I can still technically have a kid doctor for myself, even if I'm not technically a parent.

It's whacked, I know. And it didn't help that yesterday something happened that kind of messed me up.

I forgot Feather and left her all alone.

K-Boy called me up to hit the nets a little and I said yeah. So I grabbed my basketball, zipped up my jacket, and headed out the front door.

Got all the way down the elevator.

I got all the way to the street door.

Then I was almost at the corner...

She was still asleep as I crawled across the floor to her crib. Breathing that baby breath. Dreaming with baby eyes closed and sweet. And if she was older, just a little bit older, trusting that I'd be here for her.

I lay my basketball down and it rolled out the door into the hall toward Mary's room.

And I'd almost got all the way to the corner.

Dr. Victor picks Feather up and puts her on the baby scales. It's the first time I've seen her being weighed. She's a digital seven pounds and fifteen ounces.

"She's picking up weight, Bobby."

"Yeah, she drinks anything that you put in front of her. I mean, she's doing good."

"She looks fantastic. And how are you? Tired?"

I adjust Feather's booties. Our downstairs neighbor, Coco Fernandez (I've always called her by her full name), made them out of angora (whatever that is). They're soft on the baby's feet.

Then Feather stretches and yawns like she'll never close her mouth.

I smile at Dr. Victor.

Damn, do I look tired? I want to say. Does it look like I've been up for three straight weeks with no breaks in between? I don't say it though. I just smile and try to keep from curling up in the baby carrier with the kid.

Won't do any good to complain about being tired. I already tried that with my mom. She couldn't have rolled her eyes any more than she did when I mentioned how tired I was and how maybe I wanted to go hang out awhile at the arcade.

"Your arcade days are over, brother." She laughed before she walked out the front door, mumbling something about going to develop some prints.

I smile up at Dr. Victor again. "I'm okay."

She looks at me for a minute then walks closer and feels my neck. "I think you have swollen glands. Have you been feeling under the weather.?"

I say again, "I'm okay."

Then, I want to beg her for a note like I used to when I didn't want to do something and a sore knee or fever could get me out of it.

I want to say to this woman who'd always been nice to me and listened when I complained that damn it, I didn't feel good, I was tired, I didn't know where I was going to lay down in a few hours, and by the way could she just write me a note and get me out of this?

It didn't have to be a long note.

It didn't have to tell anything about a medical condition.

It just had to get me out of staying awake all night, changing diapers every hour, and doing nothing except think of the yawning little thing in the white booties, whose baby carrier was all I wanted to be in.

I just want a note to get me out of it.

Just one note.

Passage 3 Questions

1. What event does Bobby remember from yesterday while sitting in the doctor's office?
2. While everything is fine with Feather, what is Bobby suffering from physically?
3. Why do you think it's so easy for Bobby to forget that Feather is there asleep in her crib?
4. Why doesn't Bobby actually ask for a note from the doctor?

Open-ended Question.

On the answer sheet, please respond to the question below in several sentences on the space provided. Please use any evidence you would like to support your answer:

How do other people influence a person's identity?

B Passages Test Packet (TCDS Group)
Directions

1. Please do not begin the test until directed to do so.
2. You will be asked to write a response to an essential question, a question which addresses a large, overarching idea, in several sentences.
3. Following the written response to the essential question, you will be asked to read three passages taken from novels. Each passage is preceded by a short statement for you to read about the novel to help you understand the context of the passage.
4. Following each passage, you will be asked to answer four comprehension questions with a written answer that fully addresses the question in a few sentences.
5. Once you have answered the questions for a passage, you will be asked to revisit your response to the essential question and make any changes, notes, or comments you may have now concerning the essential question.
6. After briefly responding to the essential question, continue to the next passage.
7. Following all passages and questions, you will be asked to compose a longer response to an open-ended question.
8. You have been provided an answer sheet to record all your answers to the questions on this test. Please do not mark on the test.

Passage 1: Excerpt (a) from *The Handmaid's Tale* by Margaret Atwood

Context: In the novel *The Handmaid's Tale*, the United States has become a theocracy, a country ruled by the church, called Gilead. In this new country, Commanders and their wives live at the top of society, served by Marthas, women whose sole purpose is to do housework like cooking and cleaning, and Guardians, men who perform manual labor and serve as a police force. To create its version of a perfect society, this new religious country has given strict rules as to what is acceptable behavior for people. However, this society is suffering from a serious problem. Besides constant warfare with neighboring countries, most people in Gilead are unable to have children. Handmaids, women able to have children, are forced to reproduce with Commanders who are unable to have children with their wives. Handmaids are stripped of their individual identities and made an extension of the Commander to whom they are assigned. Handmaids have their previous names taken away and are given names made by combining the word “of” and the first name of their Commander to indicate which Commander they belong to. The narrator, Offred, is a Handmaid. Her only purpose in this society is to have a baby, though she remembers a life before the new society started. In this passage, she is beginning one of the few activities she is allowed to do away from her Commander’s compound where she lives – a trip to the store to buy groceries.

Essential Question: What makes us who we are?

Passage 1

Doubled, I walk the street. Though we are no longer in the Commanders' compound, there are large houses here also. In front of one of them a Guardian is mowing the lawn. The lawns are tidy, the facades are gracious, in good repair; they're like the beautiful pictures they used to print in the magazines about homes and gardens and interior decoration. There is the same absence of people, the same air of being asleep. The street is almost like a museum, or a street in a model town constructed to show the way people used to live. As in those pictures, those museums, those model towns, there are no children.

This is the heart of Gildea, where the war cannot intrude except on television. Where the edges are we aren't sure, they vary, according to the attacks and counterattacks; but this is the center, where nothing moves. The Republic of Gilead, said Aunt Lydia, knows no bounds. Gilead is within you.

Doctors lived here once, lawyers, university professors. There are no lawyers anymore, and the university is closed.

Luke and I used to walk together, sometimes, along these streets. We used to talk about buying a house like one of these, an old big house, fixing it up. We would have a garden, swings for the children. We would have children. Although we knew it wasn't too likely we could ever afford it, it was something to talk about, a game for Sundays. Such freedom now seems almost weightless.

We turn the corner onto a main street, where there's more traffic. Cars go by, black most of them, some gray and brown. There are other women with baskets, some in red, some in the dull green of Marthas, some in the striped dresses, red and blue and green and cheap and skimpy, that mark that women of the poorer men. Econowives, they're called. These women are not divided into functions. They have to do everything; if they can. Sometimes there is a woman all in black, a widow. There used to be more of them, but they seem to be diminishing.

You don't see the Commanders' Wives on the sidewalks. Only in cars.

The sidewalks here are cement. Like a child, I avoid stepping on the cracks. I'm remembering my feet on these sidewalks, in the time before, and what I used to wear on them. Sometimes it was shoes for running, with cushioned soles and breathing holes, and stars of fluorescent fabric that reflected light in the darkness. Though I never ran at night; and in the daytime, only beside well-frequented roads.

Women were not protected then.

I remember the rules, rules that were never spelled out but that every woman knew: Don't open your door to a stranger, even if he says he is the police. Make him slide his ID under the door. Don't stop on the road to help a motorist pretending to be in trouble. Keep the locks on and keep going. If anyone whistles, don't turn to look. Don't go into a laundromat, by yourself, at night.

I think about laundromats. What I wore to them: shorts, jeans, jogging pants. What I put into them: my own clothes, my own soap, my own money, money I had earned myself. I think about having such control.

Now we walk along the same street, in red pairs, and no man shouts obscenities at us, speaks to us, touches us. No one whistles.

There is more than one kind of freedom, said Aunt Lydia. Freedom to and freedom from. In the days of anarchy, it was freedom to. Now you are being given freedom from. Don't underrate it.

In front of us, to the right, is the store where we order dresses. Some people call them *habits*, a good word for them. Habits are hard to break. The store has a huge wooden sign outside it, in the shape of a golden lily; Lilies of the Field, it's called. You can see the place, under the lily, where the lettering was painted out, when they decided that even the names of shops were too much temptation for us. Now places are known by their signs alone.

Lilies used to be a movie theater, before. Students went there a lot; every spring they had a Humphrey Bogart festival, with Lauren Bacall or Katherine Hepburn, women on their own, making up their minds. They wore blouses with buttons down the front that suggested the possibilities of the word *undone*. These women could be undone; or not. They seemed to be able to choose. We seemed to be able to choose, then. We were a society dying, said Aunt Lydia, of too much choice.

Passage 1 Questions

1. What kind of person does the narrator, Offred, say used to live in the neighborhood she is walking through?
2. On her walk to the store, what is something Offred remembers from her life before being a Handmaid?
3. What does Offred imply the new society protects women from?
4. Thinking about habits being hard to break, why does Offred consider calling her dress a habit a good name for it?

Passage 2: Excerpt (b) from *The Handmaid's Tale* by Margaret Atwood

Context: This passage follows directly after the previous passage in the novel.

Essential Question: What makes us who we are?

Passage 2

I don't know when they stopped having the festival. I must have been grown up. So I didn't notice.

We don't go into Lilies, but across the road and along a side street. Our first stop is at a store with another wooden sign: three eggs, a bee, a cow. Milk and Honey. There's a line, and we wait our turn, two by two. I see they have oranges today. Ever since Central America was lost to the Libertheos, oranges have been hard to get: sometimes they are there, sometimes not. The war interferes with the oranges from California, and even Florida isn't dependable, when there are roadblocks or when the train tracks have been blown up. I look at the oranges, longing for one. But I haven't brought any coupons for oranges. I'll go back and tell Rita about them, I think. She'll be pleased. It will be something, a small achievement, to have made oranges happen.

Those who've reached the counter hand their tokens across it, to the two men in Guardian uniforms who stand on the other side. Nobody talks much, though there is a rustling, and the women's heads move furtively from side to side: here, shopping is where you might see someone you know, someone you've known in the time before, or at the Red Center. Just to catch sight of a face like that is an encouragement. If I could see Moira, just see her, know she still exists. It's hard to imagine now, having a friend.

But Ofglen, beside me, isn't looking. Maybe she doesn't know anyone anymore. Maybe they have all vanished, the women she knew. Or maybe she doesn't want to be seen. She stands in silence, head down.

As we wait in our double line, the door opens and two more women come in, both in the red dresses and white wings of the Handmaids. One of them is vastly pregnant; her belly, under her loose garment, swells triumphantly. There is a shifting in the room, a murmur, an escape of breath; despite ourselves we turn our heads blatantly, to see better; our fingers itch to touch her. She's a magic presence to us, an object of envy and desire, we covet her. She's a flag on a hilltop, showing us what can still be done: we too can be saved.

The women in the room are whispering, almost talking, so great is their excitement.

"Who is it?" I hear behind me.

"Ofwayne. No Ofwarren."

"Showoff," a voice hisses and this is true. A woman that pregnant doesn't have to go out, doesn't have to go shopping. The daily walk is no longer prescribed, to keep her abdominal muscles in drill. She could stay at her house. And it's dangerous for her to be out, there must be a Guardian standing outside the door, waiting for her. Now that she's the carrier of life, she is closer to death, and needs special security. Jealousy could get her, it's happened before. All the children are wanted now, but not by everyone.

But the walk may be a whim of hers, and they humor whims, when something has gone this far and there's been no miscarriage. Or perhaps she's one of those, *Pile it on, I can take it*, a martyr. I catch a glimpse of her face, as she raises it to look around. The voice behind me was right. She's come here to display herself. She's glowing, rosy, she's enjoying every minute of this.

"Quiet," says one of the Guardians behind the counter, and we hush like schoolgirls.

Ofglen and I have reached the counter. We hand over our tokens, and one Guardian enters the numbers on them into the Compubite while the other gives us our purchases, the milk, the eggs. We put them into our baskets and go out again, past the pregnant woman and her partner, who beside her looks spindly, shrunken; as we all do. The pregnant woman's belly is like a huge fruit. *Humungous*, word of my childhood. Her hands rest on it as if to defend it, or as if they're gathering something from it, warmth and strength.

As I pass she looks full at me, into my eyes, and I know who she is. She was at the Red Center with me, one of Aunt Lydia's pets. I never liked her. Her name, in the time before, was Janine.

Janine looks at me, then, and around the corners of her mouth there is the trace of a smirk. She glances down to where my own belly lies flat under my red robe, and the wings cover her face. I can see only a little of her forehead, and the pinkish tip of her nose.

Passage 2 Questions

1. Who arrives at the store Milk and Honey that is “an object of envy and desire” for the Handmaids in line?
2. Why do the Handmaids try to look at the faces of the other Handmaids in line at the store?
3. Why do you think the Handmaids are required to move only in pairs?
4. What enjoyment does from Janine get from coming to the store?

Passage 3: Excerpt from *The First Part Last* by Angela Johnson

Context: The narrator, Bobby, is a sixteen-year old man raising his infant daughter on his own while trying to complete high school in New York. He struggles with adjusting to how much of his life now revolves around his baby.

Essential Question: What makes us who we are?

Passage 3

I hold my baby in a waiting room that I used to sit in, way before I had her.

The nurse is the same one that has been smiling at me since my mom used to carry me in on her hip. The corkboard by the water fountain is still filled with pictures of kids, most laughing. The play area still has beat-up stuffed animals and cans of crayons pushed up against building blocks, dolls, and trucks.

I remember sitting her with Mary when I had a fever, needed to get stitches out, had to get a booster shot, fell into some poison ivy on vacation, and about a thousand other things that my pediatrician, Dr. Victor, took care of.

Now I'm sharing her with my daughter 'cause I can still technically have a kid doctor for myself, even if I'm not technically a parent.

It's whacked, I know. And it didn't help that yesterday something happened that kind of messed me up.

I forgot Feather and left her all alone.

K-Boy called me up to hit the nets a little and I said yeah. So I grabbed my basketball, zipped up my jacket, and headed out the front door.

Got all the way down the elevator.

I got all the way to the street door.

Then I was almost at the corner...

She was still asleep as I crawled across the floor to her crib. Breathing that baby breath. Dreaming with baby eyes closed and sweet. And if she was older, just a little bit older, trusting that I'd be here for her.

I lay my basketball down and it rolled out the door into the hall toward Mary's room.

And I'd almost got all the way to the corner.

Dr. Victor picks Feather up and puts her on the baby scales. It's the first time I've seen her being weighed. She's a digital seven pounds and fifteen ounces.

"She's picking up weight, Bobby."

"Yeah, she drinks anything that you put in front of her. I mean, she's doing good."

"She looks fantastic. And how are you? Tired?"

I adjust Feather's booties. Our downstairs neighbor, Coco Fernandez (I've always called her by her full name), made them out of angora (whatever that is). They're soft on the baby's feet.

Then Feather stretches and yawns like she'll never close her mouth.

I smile and Dr. Victor.

Damn, do I look tired? I want to say. Does it look like I've been up for three straight weeks with no breaks in between? I don't say it though. I just smile and try to keep from curling up in the baby carrier with the kid.

Won't do any good to complain about being tired. I already tried that with my mom. She couldn't have rolled her eyes any more than she did when I mentioned how tired I was and how maybe I wanted to go hang out awhile at the arcade.

"Your arcade days are over, brother." She laughed before she walked out the front door, mumbling something about going to develop some prints.

I smile up at Dr. Victor again. "I'm okay."

She looks at me for a minute then walks closer and feels my neck. "I think you have swollen glands. Have you been feeling under the weather.?"

I say again, "I'm okay."

Then, I want to beg her for a note like to used to when I didn't want to do something and a sore knee or fever could get me out of it.

I want to say to this woman who'd always been nice to me and listened when I complained that damn it, I didn't feel good, I was tired, I didn't know where I was going to lay down in a few hours, and by the way could she just write me a note and get me out of this?

It didn't have to be a long note.

It didn't have to tell anything about a medical condition.

It just had to get me out of staying awake all night, changing diapers every hour, and doing nothing except think of the yawning little thing in the white booties, whose baby carrier was all I wanted to be in.

I just want a note to get me out of it.

Just one note.

Passage 3 Questions

1. What event does Bobby remember from yesterday while sitting in the doctor's office?
2. While everything is fine with Feather, what is Bobby suffering from physically?
3. Why do you think it's so easy for Bobby to forget that Feather is there asleep in her crib?
4. Why doesn't Bobby actually ask for a note from the doctor?

Open-ended Question.

On the answer sheet, please respond to the question below in several sentences on the space provided. Please use any evidence you would like to support your answer:

How do other people influence a person's identity?

C Passages Test Packet (Control Group)

Directions

1. Please do not begin the test until directed to do so.
2. You will be asked to read three passages taken from novels. Each passage is preceded by a short statement for you to read about the novel to help you understand the context of the passage.
3. Following each passage, you will be asked to answer four comprehension questions with a written answer that fully addresses the question in a few sentences.
4. Once you have answered the questions for a passage, you may continue to the next passage.
5. Following all passages and questions, you will be asked to compose a longer response to an open-ended question.
6. You have been provided an answer sheet to record all your answers to the questions on this test. Please do not mark on the test.

Passage 1: Excerpt from *Dune* by Frank Herbert

Context: Duke Atreides is in conflict with another royal family, the Harkonnens. Paul, the teen-aged son of Duke Atreides, is preparing for his family's move to the planet Dune at the orders of the Emperor. Lady Jessica, Paul's mother, has arranged for the Reverend Mother of the Bene Gesserit to test her son to see if he could be the leader of prophecy. The Bene Gesserit is a religious order that possesses the power to make people do what they want with their voice. The Reverend Mother arrives at Paul's room and orders Lady Jessica out of the room.

Passage 1

Paul faced the old woman, holding anger in check. “Does one dismiss the Lady Jessica as though she were a serving wench?”

A smile flicked the corners of the wrinkled old mouth. “The Lady Jessica *was* my serving wench, lad, for fourteen years at school.” She nodded. “And a good one, too. Now, *you* come here!”

The command whipped out at him. Paul found himself obeying before he could think about it. *Using the Voice on me*, he thought. He stopped at her gesture, standing beside her knees.

“See this?” she asked. From the folds of her gown, she lifted a green metal cube about fifteen centimeters on a side. She turned it and Paul saw that one side was open-black and oddly frightening. No light penetrated that open blackness.

“Put your right hand in the box,” she said.

Fear shot through Paul. He started to back away, but the old woman said: “Is this how you obey your mother?”

He looked up into bird-bright eyes.

Slowly, feeling the compulsions and unable to inhibit them, Paul put his hand into the box. He felt first a sense of cold as the blackness closed around his hand, then slick metal against his fingers and a prickling as though his hand were asleep.

A predatory look filled the old woman’s features. She lifted her right hand away from the box and poised the hand close to the side of Paul’s neck. He saw a glint of metal there and started to turn toward it.

“Stop!” she snapped.

Using the Voice again! He swung his attention back to her face.

“I hold at your neck the gom jabbar,” she said. “The gom jabbar, the high-handed enemy. It’s a needle with a drop of poison.”

Paul tried to swallow in a dry throat. He could not take his attention from the seamed old face, the glistening eyes, the pale gums around the silvery metal teeth that flashed as she spoke.

“A duke’s son *must* know about poisons,” she said. “It’s the way of our times, eh? Musky, to be poisoned in your drink. Aumas, to be poisoned in your food. The quick ones and the slow ones and the ones in between. Here’s a new one for you: the gom jabbar. It kills only animals.”

Pride overcame Paul’s fear. “You dare suggest a duke’s son is an animal?” he demanded.

“Let us say I suggest you may be human,” she said. “Steady! I warn you not to try jerking away. I am old, but my hand can drive this needle into your neck before you escape me.”

“Who are you?” he whispered. “How did you trick my mother into leaving me alone with you? Are you from the Harkonnens?”

“The Harkonnens? Bless us, no! Now, be silent.” A dry finger touched his neck and his stilled the involuntary urge to leap away.

“Good,” she said. “You pass the first test. Now, here’s the way of the rest of it: If you withdraw your hand from the box you die. This is the only rule. Keep your hand in the box and live. Withdraw it and die.”

Paul took a deep breath to still his trembling. "If I call out there'll be servants on you in seconds and *you'll* die."

"Servants will not pass your mother who stands guard outside that door. Depend on it. Your mother survived this test. Now it's your turn. Be honored. We seldom administer this to men-children."

Curiosity reduced Paul's fear to manageable level. He heard truth in the old woman's voice, no denying it. If his mother stood guard out there...if this were truly a test... And whatever it was, he knew himself caught in it, trapped by that hand at his neck: the gom jabbar. He recalled the response from the Litany against Fear as his mother had taught him out of the Bene Gesserit rite.

"I must not fear. Fear is the mind-killer. Fear is the little-death that brings total obliteration. I will face my fear. I will permit it to pass over me and through me. And when it has gone past I will turn the inner eye to see its path. Where the fear has gone there will be nothing. Only I remain."

He felt calmness return, said: "Get on with it, old woman."

"Old woman!" she snapped. "You've courage, and that can't be denied. Well, we shall see, sirra." She bent close, lowered voice almost to a whisper. "You will feel pain in this hand within the box. Pain. But! Withdraw the hand and I'll touch your neck with my gom jabbar-the death so swift it's like the fall of the headsman's axe. Withdraw, your hand and the gom jabbar takes you. Understand?"

"What's in the box?"

"Pain."

Passage 1 Questions

1. What does the Reverend Mother do to make sure Paul does not remove his hand from the box?
2. What does the Reverend Mother tell Paul is in the box?
3. Why does the Reverend Mother tell Paul that a duke's son needs to know about poisons?
4. Why is Paul offended when he believes the Reverend Mother is calling him an animal?

Passage 2: Excerpt from *The Schwa Was Here* by Neal Shusterman

Context: Antsy is a teenager living in New York where he makes his friends with Calvin, who lives in his neighborhood. Calvin earns the nickname “the Schwa” after the vowel sounds in words that no one notices because no one ever seems to notice that he’s there. Staying out late one night, Antsy helps the Schwa learn what happened to his mother who left the Schwa and his father when he was little. The two of them learn from the old grocer in their neighborhood that the Schwa’s mother abandoned him in the supermarket and ran off with the store’s butcher, never to come back. After he goes home, Antsy imagines what it's like for the Schwa as he goes home to confront his father about what happened with his mother.

Passage 2

I know what happened in my house that night, but what happened in the Schwa's house after he got home I can only imagine. All I know is what happened after. The radioactive fallout, you might say. But I've had plenty of time to imagine it, and I'm pretty sure it went something like this:

The Schwa gets home to find his father sitting up, feeling helpless. He's too much of a wreck even to play guitar, because for once, he's actually noticed that his son wasn't home. Maybe he's been crying, because the Schwa is more like a father, and he's more like the kid.

The Schwa comes in, sees him there, and offers no explanation. He waits for his father to talk first.

"Where were you, do you have any idea how worried, blah blah blah-"

He lets his dad rant, and when his dad is done, the Schwa, still keeping his hands calmly in his pockets, asks, "Where's Mom?"

His father is thrown. He hesitates, then says, "Never mind that, where were you?"

"Where are Mom's pictures?" the Schwa asks. "I know there must have been pictures. Where are they?"

Now his father's getting scared. Not the same kind of fear he had as he waited for the Schwa to get home, but in its own way just as bad. The Schwa's afraid too. It's the fear you feel when you're off the bus, standing in front of that beautiful/horrible girl.

"Don't tell me you don't remember," the Schwa says. "Tell me why there aren't any pictures."

"There are pictures," his father finally says. "They're just put away, that's all."

"Why?"

"Because she left us!" he yells.

"She left you!" the Schwa screams back.

"No," his father says, more softly this time. "She left us."

And Calvin, no matter how much he tightens his jaw, he can't deny the ugly green-toothed truth. She left him, too.

They look at each other for a moment. The Schwa knows if it goes on too long, it will end right here. His father will clam up, and everything would go back to the way it was. But Mr. Schwa, to his credit, doesn't wait long enough for that to happen. "Come on," he says, and he leads his son out to the garage.

In the corner of the garage, hidden beneath other junk is a suitcase. He pulls it out, opens it up, and takes out a shoe box, handing it to the Schwa.

The Schwa is almost afraid to open it, but in the end he does. He has to. Inside he finds envelopes - at least fifty of them. Every one of them is addressed in the same feminine handwriting. None of them have been opened, and all are addressed to the same person.

"These were written to me," he says.

"If she wanted to talk to you, she could have come herself. I told her that."

"You spoke to her?"

"She used to call."

"And you never told me?"

His father's face gets hard. "If she wanted to talk to you," he says again, "she could have come herself."

The Schwa doesn't know which is worse - what his mother did, or what his father had done. She left, yes, but he made her disappear.

"When did the letters start coming?" the Schwa asks.

His father doesn't hold back anything anymore. He couldn't if he tried. "A few weeks after she left."

"And when did the last one come?"

His father doesn't answer right away. It's hard for him to say. Finally he tells him, "I can't remember."

He can't look his son in the face, but the Schwa, he can stare straight at his father, right through him. "I spent our savings to rent a billboard," he tells his father. "A big picture of my face."

The man doesn't understand. "Why?"

"To prove I'm not invisible."

The Schwa does not cry - he is past tears - but his father isn't. The tears roll down the man's face. "You're not invisible, Calvin."

"I wish I had known sooner."

Then the Schwa goes into his room, closes the door, and goes through the letters one by one. Some have return addresses, some don't, but it doesn't matter because the return address is never the same. It's the postmark that tells the best story. Fifty letters at least... and almost every postmark is from a different state.

Passage 2 Questions

1. What does the Schwa ask his father for?
2. Why does the Schwa say he spent their savings on renting a billboard?
3. Why did the Schwa's father tell his mother she should come in person rather than writing or calling?
4. Why does the Schwa's father cry after the Schwa tells him why he rented the billboard?

Passage 3: Excerpt from *Water for Elephants* by Sara Gruen

Context: Jacob Jankowski is an old man reflecting on his life working in circuses caring for the animals during the Great Depression. Jacob tells how he loved Rosie, the elephant in the circus, and Marlena, the woman who rode the horses in the show. The problem was Marlena was married to August the animal trainer who was cruel to both Rosie and Marlena. He recounts an evening at the circus where he was eating at a stand outside the main tent of the circus when something seems to go wrong with the show in the tent.

Passage 3

Chaos - candy butchers vaulting over counters, workmen staggering out from under tent flaps, roustabouts racing headlong across the lot. Anyone and everyone associated with the Benzini Brothers Most Spectacular Show on Earth barreled toward the big top.

Diamond Joe passed me at the human equivalent of a full gallop. "Jacob - it's the menagerie," he screamed. "The animals are loose. Go, go, *go!*"

He didn't need to tell me twice. Marlana was in that tent.

A rumble coursed through me as I approached, and it scared the hell out of me because it was on a register lower than noise. The ground was vibrating.

I staggered inside and met a wall of yak - a great expanse of curly-haired chest and churning hooves, of flared red nostrils and spinning eyes. It galloped past so close I leapt backward on tiptoe, flush with the canvas to avoid being impaled on one of its crooked horns. A terrified hyena clung to its shoulders.

The concession stand in the center of the tent had been flattened, and in its place was a roiling mass of spots and stripes - of haunches, heels, tails, and claws, all of it roaring, screeching, bellowing, or whinnying. A polar bear towered above it all, slashing blindly with skillet-sized paws. It made contact with a llama and knocked it flat - BOOM. The llama hit the ground, its neck and legs splayed like the five points of a star. Chimps screamed and chattered, swinging on ropes to stay above the cats. A wild-eyed zebra zigzagged too close to a crouching lion, who swiped, missed and darted away, his belly close to the ground.

My eyes swept the tent, desperate to find Marlana. Instead I saw a cat slide through the connection leading to the big top - it was a panther, and as its lithe black body disappeared into the canvas tunnel I braced myself. If the rubes didn't know, they were about to find out. It took several seconds to come, but come it did - one prolonged shriek followed by another, and then another, and then the whole place exploded with the thunderous sound of bodies trying to shove past other bodies and off the stands. The band screeched to a halt for a second time, and this time stayed silent. I shut my eyes: *Please God let them leave by the back end. Please God don't let them try to come through here.*

I opened my eyes again and scanned the menagerie, frantic to find her. How hard can it be to find a girl and an elephant, for Christ's sake?

When I caught sight of her pink sequins, I nearly cried out in relief - maybe I did. I don't remember.

She was on the opposite side, standing against the sidewall, calm as a summer day. Her sequins flashed like liquid diamonds, a shimmering gaze for what seemed like forever. She was cool, languid. Smiling even. I started pushing my way toward her, but something about her expression stopped me cold.

That son of a bitch was standing with his back to her, red-faced and bellowing, flapping his arms and swinging his silver tipped cane. His high-topped silk hat lay on the straw beside him.

She reached for something. A giraffe passed between us - its long neck bobbing gracefully even in panic - and when it was gone I saw that she'd picked up an iron stake. She held it loosely, resting its end on the hard dirt. She looked at me again, bemused. Then her gaze shifted to the back of his bare head.

“Oh Jesus,” I said, suddenly understanding. I stumbled forward, screaming even though there was no hope of my voice reaching her. “Don’t do it! *Don’t do it!*”

She lifted the stake high in the air and brought it down, splitting his head like a watermelon. His pate opened, his eyes grew wide, and his mouth froze into an *O*. He fell to his knees and then toppled forward into the straw.

I was too stunned to move, even as a young orangutan flung its elastic arms around my leg.

So long ago. So long. But it still haunts me.

I don’t talk much about those days. Never did. I don’t know why - I worked on circuses for nearly seven years, and if that isn’t fodder for conversation, I don’t know what is.

Actually I do know why: I never trusted myself. I was afraid I’d let it slip. I knew how important it was to keep her secret, and keep it I did - for the rest of her life, and then beyond.

In seventy years, I’ve never told a blessed soul.

Passage 3 Questions

1. What is causing the commotion in the main tent?
2. What happened to the man in the top hat with the silver-tipped cane?
3. Why does Jacob keep the secret of what happened in the big top that night seventy years ago?
4. Why is it important to note that the person Jacob is looking for is calm?

Open-ended Question.

On the answer sheet, please respond to the question below in several sentences on the space provided. Please use any evidence you would like to support your answer:

How do other people influence a person's identity?

Appendix B

Thematically Connected Dialogic Pedagogy (TCDP) Answer Sheets for the Thematically Connected (TC), Thematically Connected Dialogic Support (TCDS), and Control Groups

Each answer sheet has the corresponding group noted in parentheses after the heading for ease of reference. These parenthetical denotations were not present on the answer sheets given to participants.

A Passages Answer Sheet (TC Group)

Directions

1. You have been provided this answer sheet to record all your answers to the questions on this test.
2. Write your answer in a few sentences in the space below each question for the indicated passage.
3. A larger space at the end has been provided for the answer to the open-ended question.
4. Please do not mark on the test.

Passage 1

1. What kind of person does the narrator, Offred, say used to live in the neighborhood she is walking through?

2. On her walk to the store, what is something Offred remembers from her life before being a Handmaid?

3. What does Offred imply the new society protects women from?

4. Thinking about habits being hard to break, why does Offred consider calling her dress a habit a good name for it?

Passage 2

1. Who arrives at the store Milk and Honey that is “an object of envy and desire” for the Handmaids in line?

2. Why do the Handmaids try to look at the faces of the other Handmaids in line at the store?

3. Why do you think the Handmaids are required to move only in pairs?

4. What enjoyment does from Janine get from coming to the store?

Passage 3

1. What event does Bobby remember from yesterday while sitting in the doctor's office?

2. While everything is fine with Feather, what is Bobby suffering from physically?

3. Why do you think it's so easy for Bobby to forget that Feather is there asleep in her crib?

4. Why doesn't Bobby actually ask for a note from the doctor?

B Passages Answer Sheet (TCDS Group)

Directions

1. You have been provided this answer sheet to record all your answers to the questions on this test.
2. An initial space for you to respond to the essential question has been provided at the beginning of the answer sheet.
3. For the reading passage questions, write your answer in a few sentences in the space below each question for the indicated passage.
4. Between passages a space has been provided for you to write or make notes regarding the essential question.
5. A larger space at the end has been provided for the answer to the open-ended question.
6. Please do not mark on the test.

Passage 1

1. What kind of person does the narrator, Offred, say used to live in the neighborhood she is walking through?

2. On her walk to the store, what is something Offred remembers from her life before being a Handmaid?

3. What does Offred imply the new society protects women from?

4. Thinking about habits being hard to break, why does Offred consider calling her dress a habit a good name for it?

Essential Question (After Passage 1) – What makes you who you are?

Passage 2

1. Who arrives at the store Milk and Honey that is “an object of envy and desire” for the Handmaids in line?

2. Why do the Handmaids try to look at the faces of the other Handmaids in line at the store?

3. Why do you think the Handmaids are required to move only in pairs?

Passage 3

1. What event does Bobby remember from yesterday while sitting in the doctor's office?

2. While everything is fine with Feather, what is Bobby suffering from physically?

3. Why do you think it's so easy for Bobby to forget that Feather is there asleep in her crib?

4. Why doesn't Bobby actually ask for a note from the doctor?

C Passages Answer Sheet (Control Group)
Directions

1. You have been provided this answer sheet to record all your answers to the questions on this test.
2. Write your answer in a few sentences in the space below each question for the indicated passage.
3. A larger space at the end has been provided for the answer to the open-ended question.
4. Please do not mark on the test.

Passage 1

1. What does the Reverend Mother do to make sure Paul does not remove his hand from the box?

2. What does the Reverend Mother tell Paul is in the box?

3. Why does the Reverend Mother tell Paul that a duke's son needs to know about poisons?

4. Why is Paul offended when he believes the Reverend Mother is calling him an animal?

Passage 2

1. What does the Schwa ask his father for?

2. Why does the Schwa say he spent their savings on renting a billboard?

3. Why did the Schwa's father tell his mother she should come in person rather than writing or calling?

4. Why does the Schwa's father cry after the Schwa tells him why he rented the billboard?

Passage 3

1. What is causing the commotion in the main tent?

2. What happened to the man in the top hat with the silver-tipped cane?

3. Why does Jacob keep the secret of what happened in the big top that night seventy years ago?

4. Why is it important to note that the person Jacob is looking for is calm?

Appendix C

Thematically Connected Dialogic Pedagogy Testing Administration Script

These instructions are to be read to each group in the study: Treatment A – Thematically Connected Passages, Treatment B – Thematically Connected Dialogic Pedagogy Passages, and the control group. Directions in blue font are to be read to students for the administration of the test. Actions to be performed by administrators or teachers will be in brackets. At this point, students are randomly assigned to one of the three groups. Researchers will have written student IDs on the correct test answer form (either Treatment A Thematically Connected Answer Sheet, Treatment B Thematically Connected Dialogic Pedagogy Answer Sheet, or Control Passages Answer Sheet) and sent them to the school ahead of the day for experiment test administration. The school will have received answer sheets and organized the answer sheets by English class as that is where the students will be taking the test. At no point will the researchers have access to the student’s information. Classroom teachers will be responsible for handing out test answer sheets to the appropriate student.

[Begin administration by reading the text below.]

Good morning/afternoon. Today you will take a reading comprehension test that involves reading three passages and answering questions following each reading with a longer response question at the end. The results of this test should inform us regarding the efficacy of a reading intervention aimed at improving student understanding of texts. In a moment, your teacher will pass out test answer sheets for you to use to record your answers. Please do not go past the first page when you receive the answer sheet.

[Classroom teachers hand out answer sheets to students. While they are doing this read the text below.]

At the top of every page, there will be a number that should correspond to your identification number. Please make sure the number is your student ID number when you receive your answer sheet. If you do not remember your student identification number, your teacher can inform you of the number.

[Allow a few minutes for students and the classroom teacher to ensure that every student has the correct answer sheet. Then begin the passing out the tests to students using the directions below.]

You are going to be given the test next. At the top of your answer sheet, you should see text that reads “A Passages Answer Sheet,” “B Passages Answer Sheet,” or “C Passages Answer Sheet.” Please note which set of passages you are supposed to receive prior to handing out the tests. When you receive your test leave it unopened on your desk until you are asked to begin. PLEASE DO NOT WRITE ON THE TEST ITSELF.

[Give students a few seconds to make sure they all understand which passages they are supposed to receive, then continue.]

If you have the A Passages Answer Sheet, raise your hand now and you will be handed the A Passages test.

[Hand out Treatment A Thematically Connected Passages to students raising their hands.]

If you have the B Passages Answer Sheet, raise your hand now and you will be handed the B Passages test.

[Hand out Treatment B Thematically Connected Passages to students raising their hands.]

If you have the C Passages Answer Sheet, raise your hand now and you will be handed the C Passages test.

[Hand out Treatment C Thematically Connected Passages to students raising their hands.]

At this time, if you have the B passages please stand and follow [member of the research team] to a different testing room for administration of the test.

[Wait for students to stand leave with member of the research team who will lead the Treatment B Thematically Connected Dialogic Pedagogy Passages testing. If you are administering the Treatment A and C passages, continue with the instructions for administering the test under the “Treatments A and C Administration” heading. If you are administering the Treatment B Passages, continue with the instructions under the “Treatment B Administration” heading.]

Treatments A and C Administration

[After the students taking Treatment B have left, read the instructions below to the students in the room.]

You will be taking a reading comprehension test which will require you to read three passages, answer four comprehension questions at the end of each passage, and write a longer response after reading all three passages. Write your answers in complete sentences on the answer sheet you’ve been provided. Please avoid making any marks on the test itself. Spaces have been provided following each question for you to answer the question. A larger space has been provided at the end of the answer sheet for the open-ended question at the end. When you come to the open-ended response, if you need more paper, raise your hand and you will be provided more paper to answer the question. If you have questions about the directions of the test, someone can help clarify that for you during the test. However, the administrators of the test cannot give help regarding the content of the passages or the questions of the test. The test is untimed, but, if you should finish before others are done, raise your hand and your test will be collected. Wait quietly for others to finish. Are there any questions before we begin?

[Answer the questions students may have regarding the test. Once there are no more questions, continue with the instructions below.]

You may now begin the test.

[As students take the test, move around the room to monitor testing. If a student raises their hand about directions or materials (pencil sharpening or more paper), help that student. If a student asks a question about the content of the strs during the test, say, “I’m sorry but I can’t answer questions about the content of the test. Do the best you

can.” Once the last student has finished the test, make sure you have all the tests and answer sheets collected. Once that is done, continue reading the instructions aloud.] Please make sure that you have turned in all testing materials. This concludes the testing period. Your classroom teacher will direct you to what to do next. Thank you for your participation in this research.

[Return control of the classroom back over to the English teacher. Ensure that you have all the test materials.]

Treatment B Administration

[Travel with students to the separate setting for Treatment B administration. Once students are in their seats, continue by reading aloud the testing instructions below.] You will be taking a reading comprehension test which will require you to reflect and respond to a larger question about the world. As part of the test, you will read three passages, answer four comprehension questions at the end of each passage, and write a longer response after reading all three passages. At the start of the test, you will be given ten minutes to respond in writing to a question about the world using your own experiences and previous knowledge to support your answer. A space has been provided for this response on your answer sheet. Please avoid making any marks on the test itself. If you should finish writing before the ten minutes expires, please remain quiet for others to finish. Do not go on to the rest of the test until directed to do so. Are there any questions before we begin?

[Answer the questions students may have regarding the test. Once there are no more questions, continue with the instructions below.]

We will now start with the larger question about the world. You will have ten minutes to respond in writing to the question. I will monitor the time on this portion of the test and will give you a notification when there is a minute left in your time. You may now begin the test.

[Set a silent timer for 10 minutes or note the time on the class clock and add ten minutes. Move about the room to monitor students. Once nine minutes have passed read the text below.]

You have one minute left for this portion of the test.

[Continue to move about the room and monitor students. At the end of the ten minutes state the following.]

Your time for this portion has concluded. You will now be taking the reading comprehension portion of the test which will require you to read three passages, answer four comprehension questions at the end of each passage, and write a longer response after reading all three passages. Between each reading passage, there is a prompt to respond briefly to the larger question from the beginning of the test again. Space has been provided for you to write notes or a few sentences about how your thoughts or ideas might have changed between your previous answers and after you have read the passage. Write your answers in complete sentences on the answer sheet you’ve been provided. Please avoid making any marks on the test itself. Spaces have been provided following each question for you to answer the question. A larger space has been provided at the end of the answer sheet for the open-ended question. When you come to the open-ended response, if you need more paper, raise your hand and

you will be provided more paper to answer the question. If you have questions about the directions of the test, someone can help clarify that for you during the test. However, the administrators of the test cannot give help regarding the content of the passages or the questions of the test. Aside from the initial response to the larger question, the test is untimed. If you should finish before others are done, raise your hand and your test will be collected. Wait quietly for others to finish. Are there any questions before we begin this portion of the test?

[Answer the questions students may have regarding the test. Once there are no more questions, continue with the instructions below.]

You may now begin the test.

[As students take the test, move around the room to monitor testing. If a student raises their hand about directions or materials (pencil sharpening or more paper), help that student. If a student asks a question about the content of the strs during the test, say, "I'm sorry but I can't answer questions about the content of the test. Do the best you can." Once the last student has finished the test, make sure you have all the tests and answer sheets collected. Once that is done, continue reading the instructions aloud.]

Please make sure that you have turned in all testing materials. This concludes the testing period. We will walk back to your English classroom quietly. If the students in that room are still testing, please be seated in your desk silently until their testing is complete. Once all testing is completed, your classroom teacher will direct you to what to do next. Thank you for your participation in this research.

[Ensure that you have all the test materials. Return the students back to their English classroom of the classroom back over to the English teacher.]

This concludes the test administration. Make sure that you have all testing materials collected.

Appendix D

TCDP Testing Procedures

Prior to administration, I trained Heather Turner (English Education PhD student at Virginia Tech) to administer the TCDP using the script (see Appendix C). Administration included the procedures outlined below. Turner and I collected data from participants in the TCDP testing during the school day in their English classroom or similar setting. Participants in the TC and Control condition would test in the same room but participants assigned to the TCDS group would be tested separately as their directions differed from the other two groups as their test required them to first respond in writing to an essential question on the front of their answer sheet prior to the start of reading any passages. Administration of the TCDP tests took from 65 to 85 minutes with the TCDS group needing more time than the other two groups due to the written response to the essential question prior to and during the reading of test passages. The researcher who would administer the TC and Control groups or the TCDS group for each period was determined randomly by a coin toss prior to the start of each period as a means to help control for the effects of a particular test administrator on the outcomes of participants' tests.

Reading passages and test questions were stapled together in a test packet (Appendix A) as well as a separate test answer sheet (Appendix B). Answer sheets for each group were labeled with student identification numbers and organized by class. The TC group used the A passages test packet and answer sheet, the TCDS group used the B passages test packet and answer sheet, and the Control group used the C passages test packet and answer sheet. At the start of the class period, Turner, the classroom teachers, and I

handed out answer sheets by calling out ID numbers and placing the answer sheets on participants' desks when they raised their hands as their number was called. Following the test administration script (Appendix C), Turner or I then asked participants to look at the top left corner of their answer sheet to see which group they had been assigned. Prior to handing out the answer sheets, participants were directed not to open either the answer sheet or the test packet prior to the start of the test. We then handed out the test packers in order, starting with participants that were reading the A passages, followed by B and C passages.

After all testing materials were handed out, participants in either the TC and Control group or the TCDS group were asked to stand and follow the researcher administering their test to a separate room to test. In periods where only one class was being tested, the group who moved for each period was the group with the smallest numbers and testing occurred in an empty classroom nearby. When two or more classes tested during the same period, one classroom would be designated for the TC and Control group and the other classroom would be for the TCDS group. This was easily accomplished with the classrooms of Bean and Boggis as they were across the hall from each other. For the periods where we were testing Bunce's classes as well, we used the auditorium to test the larger group and participants were escorted to the location by the researcher and a classroom teacher.

Turner or I delivered instructions to participants after testing materials were handed out. In the TCDS group alone, participants responded in writing for ten minutes to a question relating to a larger philosophical issue that the passage touches on, what Fecho (2011) would term an essential question, before they began reading the passages and

answering questions on the answer sheet. Each group's answer sheet contained the questions for each reading passage and an additional larger space at the end for the open-ended response. The question for the open-ended response was also in the test answer sheet for all groups and directions were given for participants to use whatever evidence from the passages or their own experience to support their answer.

Participants read passages of approximately 750 words, while advised to read for meaning as they were asked comprehension questions at the conclusion of each reading. After reading a passage, participants answered four comprehension questions in writing in a space provided on their answer sheet to gauge whether or not participants understood the passage.

Following the comprehension questions, participants in the TCDS group alone responded briefly in writing in a space provided on their answer sheet after the questions to the same essential question as earlier, but asking them to explain how the passage confirmed, altered, expanded, or contradicted their previous response to the essential question.

All participants except those in the Control group read a second passage that is the section of text immediately following the initial passage excerpted from same novel. The first two passages read in the TC and TCDS groups represent continuous texts, sharing a common textbase. Control participants read a passage that is not continuous with the first passage read, from the same text, or thematically connected to the first passage.

Participants were asked to read the second passage of approximately 750 words, while advised to read for meaning as they were asked comprehension questions at the conclusion of the second reading, as well. At the conclusion of reading the second

passage, participants answered four comprehension questions in the spaces provided in their test answer sheets to gauge whether or not they understood the second reading passage. After the comprehension questions, participants in the TCDS group again responded to how the passage confirmed, altered, expanded, or contradicted their previous response to the essential question in an additional space in their answer sheet following the spaces for the second group of reading comprehension questions.

After answering comprehension questions, participants in the TC and TCDS groups read a third passage from a novel text that shares a thematic connection to the first two passages in their test packets. Participants read the third passage of approximately 750 words, while advised to read for meaning as they would be answering comprehension questions at the conclusion of the third reading, as well. The Control group read a third passage that is not continuous with the first or second passages read, from the same text, or thematically connected to the first or second passage. At the conclusion of reading the third passage, all participants answered four comprehension questions to gauge whether or not participants understood the transfer reading passage.

At the conclusion of the readings, participants responded in writing in a large space provided at the end of their answer sheet to an open-ended question "How do other people influence your identity?" citing any evidence they deem useful in supporting their position from their own experiences or the texts they read. Researchers provided additional lined paper if participants required it.

Test answer sheets and booklets were collected at the end of the TCDP testing for each class period. Researchers placed test answer sheets into folders for each group organized by class, period, and English teacher.

Participants who did not participate in the TCDP testing completed an alternate writing assignment provided by their English teachers.

Appendix E

Text Variables Tables

Table E1

Word and Syntactic Complexity and Lexical Diversity Measures and Norms

Passage	SL (SD)	SL Norm (SD)	WLsyl (SD)	WLsyl Norm (SD)	WLlt (SD)	WLlt Norm (SD)	TTR	TTR Norm (SD)
Excerpt (a) from <i>The Handmaid's Tale</i> by Margaret Atwood	11.75 (7.727)	14.522 (4.421)	1.33 (.644)	1.32 (.068)	4.19 (2.189)	4.159 (.191)	.445	.548 (.049)
Excerpt (b) from <i>The Handmaid's Tale</i> by Margaret Atwood	12.439 (7.545)		1.308 (.592)		3.938 (2.094)		.428	
Excerpt from <i>The First Part Last</i> by Angela Johnson	13.088 (11.055)		1.26 (.535)		3.764 (2.01)		.417	
Control passage 1 – Excerpt from <i>Dune</i> by Frank Herbert	8.579 (6.186)		1.267 (.586)		3.991 (2.022)		.41	
Control passage 2 – Excerpt from <i>The Schwa Was Here</i> by Neal Shusterman	8.885 (6.176)		1.232 (.516)		3.805 (1.866)		.376	

Control passage 3 – Excerpt from <i>Water for Elephants</i> by Sara Gruen	12.934 (9.307)	1.328 (.637)	4.184 (2.292)	.519
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Note. SL = Mean sentence length in number of words; WLSyl = Mean word length in number of syllables; WLlt = Mean word length in number of letters; TTR = Type-token ratio.

Table E2
Passage Referential Cohesion and Latent Semantic Analysis Measures and Norms

Passages	AO ₁	AO ₁ Norm (SD)	AO _a	AO _a Norm (SD)	LSASS ₁ (SD)	LSASS ₁ Norm (SD)	LSASS _p (SD)	LSASS _p Norm (SD)
Excerpt (a) from <i>The Handmaid's Tale</i> by Margaret Atwood	.358	.454 (.184)	.166	.362 (.149)	.114 (.191)	.25 (.092)	.091 (.155)	.207 (.085)
Excerpt (b) from <i>The Handmaid's Tale</i> by Margaret Atwood	.385		.269		.126 (.155)		.105 (.159)	
Excerpt from <i>The First Part Last</i> by Angela Johnson	.607		.507		.147 (.159)		.122 (.145)	
Control passage 1 – Excerpt from <i>Dune</i> by Frank Herbert	.266		.23		.098 (.152)		.173 (.181)	

Control passage 2 – Excerpt from <i>The Schwa Was Here</i> by Neal Shusterman	.291	.225	.115 (.178)	.175 (.157)
Control passage 3 – Excerpt from <i>Water for Elephants</i> by Sara Gruen	.35	.265	.153 (.192)	.173 (.244)

Note. AO₁ = Argument overlap in adjacent sentences; AO_a = Argument overlap in all sentences; LSASS₁ = Latent semantic analysis of adjacent sentences; LSASS_p = Latent semantic analysis of each sentence to every other sentence in the passage.

Appendix F

TCDP Study One-Page Overview for School Administration

To: [Principal]
[Participating] High School

From: Jim Hill, Doctoral Candidate, School of Education, Virginia Tech
jimhill@vt.edu

Re: Request for Participation in a Research Study about Reading

Research Study:

Examining Dialogic Approaches to Reading Instruction to Support Adolescent Readers and Supplement Strategy Instruction Through Personal and Thematic Connections

Overview

- Students in middle and high school struggle with reading comprehension
- 2015 NAEP National Report Card states nearly 70% of students grades 8-12 read below proficiency on grade-level texts.
- Middle and high school English teachers are typically not trained reading specialists
- Very little evidence-based research exists about how to improve reading comprehension for adolescents.

Purpose

- Study will assess efficacy of a reading strategy for adolescents

What this Study Will Require:

- Access to 9th-, 10th-, and 11th-grade English classrooms for 2 days (per classroom)
 - Day 1: To test all 9th, 10th, and 11th graders using the Nelson-Denny Reading Test
 - Day 2: To implement a Reading Comprehension Test

Benefits to the School:

- [Participating] High School will receive reading scores for all students (except those who opt out)

Things you should know

- Research permission will be obtained from WIRB and [Participating School District].
- I will not collect any identifying information of individual students.

Assistance needed from the school:

- Assistance in sending home testing and opt out information
- Time and space to conduct study tests

Appendix G

RESEARCH SUBJECT PARENT INFORMATION SHEET

Title: Examining Dialogic Approaches to Reading Instruction to Support Adolescent Readers and Supplement Strategy Instruction Through Personal and Thematic Connections

Protocol No.: 18-1061
WIRB® Protocol #20190360
18-1061

Sponsor: Virginia Polytechnic Institute and State University

Investigator: Dr. Trevor T. Stewart, PhD
War Memorial Hall Room 309
370 Drillfield Drive
Blacksburg, VA, 24061
U.S.A.

Daytime Phone Number: (704) 280-1620

24 Hour Phone Number: (704) 280-1620

Sub-Investigator: Jim Hill

Your student is being invited to take part in a research study. Participation is voluntary. You or your student can choose not to take part or agree to take part and later change your mind. There will be no penalty or loss of benefits to which you or your student are otherwise entitled.

The purpose of this research is to ask your student questions and determine his or her feedback. Your student's participation in this research will last until he or she has completed two reading tests. The risk involved in this research is minimal. See information in section "Could Being in This Research Hurt Me?" below. There are no benefits to you or your student from taking part in this research. Others may benefit from the information gained during this research. Your alternative is to not allow your student to take part in the research. We may publish the results of this research. Your student's information will be confidential. The researchers are not collecting any identifiable information on students. The researchers will only have access to an ID number on test forms. [Participating School District], however, will have access to individual student scores.

If you have questions, concerns, or complaints, or think this research has hurt your student, talk to the research team at the phone number listed above. This research is being overseen by Western Institutional Review Board (“IRB”). An IRB is a group of people who perform independent review of research studies. You may talk to them at (800) 562-4789, help@wirb.com if you have questions, concerns, or complaints that are not being answered by the research team or you have questions about your student’s rights as a research subject.

By continuing in the study, you are consenting to continue.

Information for Research Participants

- In this consent form “you” refers to the research participant, though the information is intended for both parents and students.

What should I know about this research?

- Someone will explain this research to you.
- This form sums up that explanation.
- Taking part in this research is voluntary. Whether you take part is up to you.
- You can choose not to take part. There will be no penalty for declining to participate.
- You can agree to take part and later change your mind. There will be no penalty for declining to participate or withdrawing from participation.
- If you don’t understand, ask questions.
- Ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research is to explore if a reading strategy will help students understand and use what they read. The reading strategy is centered on connecting the texts of the classroom thematically and an essential question aimed at helping students bring their own knowledge and life experience to reading texts. Specifically, we are looking to see if the strategy helps students in high school comprehend what their reading better, facilitate their ability to make connections between multiple texts, and help them transfer those gains to new texts. We are interested to see if the addition of a larger question to frame student inquiry presents an effective intervention that can be implemented over what English teachers are already doing in the classroom to help students better understand the texts that they read and apply it.

About 250 participants will take part in this research.

How long will I be in this research?

We expect that your taking part in this research will last two hours, in two one-hour periods on separate days.

What happens to me if I agree to take part in this research?

If you agree to take part in this research, you will be asked to take two tests on separate days in your English class during the school day. Both tests would last approximately one hour. The first test is the Nelson Denny Reading Test which will require you to identify vocabulary words, read seven passages, and answer comprehension questions following each passage. The Nelson Denny Reading Test will assess your reading level which will be used to assure that the study groups used for the second test are comparable.

The second test will assess a reading strategy that could potentially be used in English classrooms. This test would be administered on a separate day after the Nelson Denny Reading Test. The test will require you to read three passages, answer comprehension questions following each passage, and write a longer response at the end of reading the three passages. For this test, there are three study groups. One group uses a common practice of organizing texts, one group uses those same texts but with the addition of the reading strategy being studied, and one group will read different passages to act as a control. You will be put into a study group by chance (like drawing straws). You have a one out of three chance of being placed in each group. You cannot choose your study group. During the research, you and the study researchers will not know which group you are in. We, the researchers, will not have access to any of your identifying information. Instead, all the documents we collect will only have an ID number. The school will keep the list of which ID number corresponds to each student which the researchers will not have access to. If a need arises, the school would be able to determine which group you had been in.

Data collected from both tests will be shared with the school after collection and analysis. The school may share those results with you.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible to perform your best on the two tests given to you on separate days. You will be required to follow the testing directions provided by the researchers and help maintain an appropriate testing environment in your English classroom.

Could being in this research hurt me?

The risk involved in this research is minimal. However, the potential risks in participating in this study are those associated with taking a standardized test. There may be fatigue from taking an hour-long test. You may feel some anxiety about testing prior to and during the test. Both possibilities should subside after the test. There may also be concern over performance on the tests and the privacy of those results. Participation in this

research may involve risks that are currently unforeseeable. If you wish to discuss the information above or any other risks your child may experience, you may ask questions now or call the Principal Investigator listed on the front page of this form. The researchers will maintain students' anonymity by using numerical ID numbers assigned to the students by the school system. School administration and faculty would be the only people with access to ID numbers and the corresponding student.

Will being in this research benefit me?

There are no benefits to you from your taking part in this research. We cannot promise any benefits to others from your taking part in this research. However, possible benefits to others include reading level information to help the school make instructional choices and a reading strategy which could be employed by teachers to help students better understand, connect, and apply the texts they are reading in class.

What other choices do I have besides taking part in this research?

This research is not designed to diagnose, treat or prevent any condition. Your alternative is to not take part in the research. Your English teacher will have an alternate assignment for you to complete.

What happens to the information collected for this research?

The data from this research will be shared between the researchers and the school. Your private information will be maintained by the school and will not be shared with the researchers. We may publish the results of this research. However, we will keep your name and other identifying information confidential. We protect your information from disclosure to others to the extent required by law. We cannot promise complete secrecy.

Who can answer my questions about this research?

If you have questions, concerns, or complaints, or think this research has hurt you or made you sick, talk to the research team at the phone number listed above on the first page.

This research is being overseen by an Institutional Review Board ("IRB"). An IRB is a group of people who perform independent review of research studies. You may talk to them at (800) 562-4789, help@wirb.com if:

- You have questions, concerns, or complaints that are not being answered by the research team.
- You are not getting answers from the research team.
- You cannot reach the research team.

- You want to talk to someone else about the research.
- You have questions about your rights as a research subject.

Can I be removed from this research without my approval?

The person in charge of this research can remove you from this research without your approval. Possible reasons for removal include:

- You become ill or disruptive during testing.
- You are unable to be present for both tests.
- You must leave testing prior to completing a test.

We will tell you about any new information that may affect your choice to stay in this research.

What happens if I agree to be in this research, but I change my mind later?

Your participation is completely voluntary and you will be able to withdraw from participation at any time without penalty. If you decide to leave this research, contact the research team or the school so that the investigator can withdraw your written materials and test data from the study and, if prior to any testing, make arrangements with the classroom teacher for you to have an alternate assignment.

Will I be paid for taking part in this research?

You will not be paid for taking part in this research.

How can I opt out of participation in this research for my student?

If you do not want your student to participate in this research, please contact the investigator and inform them you would like to opt out. The investigator's contact information is found on the first page of this document.

Appendix H

RESEARCH SUBJECT ASSENT FORM

Title: Examining Dialogic Approaches to Reading Instruction to Support Adolescent Readers and Supplement Strategy Instruction Through Personal and Thematic Connections

Protocol No.: 18-1061
WIRB® Protocol #20190360
18-1061

Sponsor: Virginia Polytechnic Institute and State University

Investigator: Dr. Trevor T. Stewart, PhD
War Memorial Hall Room 309
370 Drillfield Drive
Blacksburg, VA, 24061
U.S.A.

Daytime Phone Number: (704) 280-1620

24 Hour Phone Number: (704) 280-1620

Sub-Investigator: Jim Hill

You are being invited to take part in a research study. A person who takes part in a research study is called a research participant.

In this assent form “you” refers to the research participant.

What should I know about this research?

- Someone will explain this research to you.
- This form sums up that explanation.
- Taking part in this research is voluntary. Whether you take part is up to you.
- You can choose not to take part. There will be no penalty for declining to participate.
- You can agree to take part and later change your mind. There will be no penalty for declining to participate or withdrawing from participation.
- If you don’t understand, ask questions.
- Ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research is to explore if a reading strategy will help students understand and use what they read. The reading strategy is centered on connecting the texts of the classroom thematically and an essential question aimed at helping students bring their own knowledge and life experience to reading texts. Specifically, we are looking to see if the strategy helps students in high school comprehend what their reading better, facilitate their ability to make connections between multiple texts, and help them transfer those gains to new texts. We are interested to see if the addition of a larger question to frame student inquiry presents an effective intervention that can be implemented over what English teachers are already doing in the classroom to help students better understand the texts that they read and apply it.

About 250 participants will take part in this research.

How long will I be in this research?

We expect that your taking part in this research will last two hours, in two one-hour periods on separate days.

What happens to me if I agree to take part in this research?

If you agree to take part in this research, you will be asked to take two tests on separate days in your English class during the school day. Both tests would last approximately one hour. The first test is the Nelson Denny Reading Test which will require you to identify vocabulary words, read seven passages, and answer comprehension questions following each passage. The Nelson Denny Reading Test will assess your reading level which will be used to assure that the study groups used for the second test are comparable.

The second test will assess a reading strategy that could potentially be used in English classrooms. This test would be administered on a separate day after the Nelson Denny Reading Test. The test will require you to read three passages, answer comprehension questions following each passage, and write a longer response at the end of reading the three passages. For this test, there are three study groups. One group uses a common practice of organizing texts, one group uses those same texts but with the addition of the reading strategy being studied, and one group will read different passages to act as a control. You will be put into a study group by chance (like drawing straws). You have a one out of three chance of being placed in each group. You cannot choose your study group. During the research, you and the study researchers will not know which group you are in. We, the researchers, will not have access to any of your identifying information. Instead, all the documents we collect will only have an ID number. The school will keep the list of which ID number corresponds to each student which the researchers will not have access to. If a need arises, the school would be able to determine which group you had been in.

Data collected from both tests will be shared with the school after collection and analysis. The school may share those results with you.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible to perform your best on the two tests given to you on separate days. You will be required to follow the testing directions provided by the researchers and help maintain an appropriate testing environment in your English classroom.

Could being in this research hurt me?

The risk involved in this research is minimal. However, the potential risks in participating in this study are those associated with taking a standardized test. There may be fatigue from taking an hour-long test. You may feel some anxiety about testing prior to and during the test. Both possibilities should subside after the test. There may also be concern over performance on the tests and the privacy of those results. The researchers will not be able to pair test data with a specific student who participated in the research. Anonymity will be maintained by using numerical ID numbers. School administration and faculty would be the only people with access to ID numbers and the corresponding student.

Will being in this research benefit me?

There are no benefits to you from your taking part in this research. We cannot promise any benefits to others from your taking part in this research. However, possible benefits to others include reading level information to help the school make instructional choices and a reading strategy which could be employed by teachers to help students better understand, connect, and apply the texts they are reading in class.

What other choices do I have besides taking part in this research?

This research is not designed to diagnose, treat or prevent any condition. Your alternative is to not take part in the research. Your English teacher will have an alternate assignment for you to complete.

What happens to the information collected for this research?

The data from this research will be shared between the researchers and the school. Your private information will be maintained by the school and will not be shared with the researchers. We may publish the results of this research. However, we will keep your name and other identifying information confidential. We protect your information from disclosure to others to the extent required by law. We cannot promise complete secrecy.

Who can answer my questions about this research?

If you have questions, concerns, or complaints, or think this research has hurt you or made you sick, talk to the research team at the phone number listed above on the first page.

This research is being overseen by an Institutional Review Board (“IRB”). An IRB is a group of people who perform independent review of research studies. You may talk to them at (800) 562-4789, help@wirb.com if:

- You have questions, concerns, or complaints that are not being answered by the research team.
- You are not getting answers from the research team.
- You cannot reach the research team.
- You want to talk to someone else about the research.
- You have questions about your rights as a research subject.

Can I be removed from this research without my approval?

The person in charge of this research can remove you from this research without your approval. Possible reasons for removal include:

- You become ill or disruptive during testing.
- You are unable to be present for both tests.
- You must leave testing prior to completing a test.

We will tell you about any new information that may affect your choice to stay in this research.

What happens if I agree to be in this research, but I change my mind later?

Your participation is completely voluntary and you will be able to withdraw from participation at any time without penalty. If you decide to leave this research, contact the research team or the school so that the investigator can withdraw your written materials and test data from the study and, if prior to any testing, make arrangements with the classroom teacher for you to have an alternate assignment.

Will I be paid for taking part in this research?

You will not be paid for taking part in this research.

Statement of Assent:

All students are required to assent. After having been informed by the research team of the nature and purpose of the study, please indicate by marking a box below your decision on assenting to participate in the study and write your identification number provided by the school on the line indicated below. DO NOT sign the form anywhere to help maintain your confidentiality.

The study has been explained to me to my satisfaction and I understand what is required of my by participating in the research. At this time:

I DO assent to participate in the study.

OR

I DO NOT assent to participate in the study.

Student ID #

Date

Appendix I

Thematically Connected Dialogic Pedagogy Experiment Codebook

Units of Data Collection: Data collection consists of two parts - open-ended reading comprehension questions requiring a short response following each reading passage and a longer written response asking the students to synthesize the texts they have read and their own prior knowledge and experience. In the former, the unit of analysis is the answer to the question. The scale used to code those answers is in the section “Reading Comprehension Questions.” In the second part, the unit of analysis is an intertextual reference. This is the reference to other texts that they read during the experiment or prior knowledge and experience they reference in their longer response following the reading of all the passages. Directions on how to code intertextual references will be found in “Intertextual Open-ended Question.” Record your coding on the excel form “Exp_Test_Coding_Form.” Please save the file as “Exp_Test_Coding_Form_[LASTNAME].”

Other Coding Instructions: As you code, please do not code past the point you feel fatigued. Take an occasional break and come back to coding. Refer back to the coding instructions often. Avoid inferring what the participant meant on the test and code for what is actually present on the test. On the coding form there are some fields that are automatically generated. You do not have to do anything in these fields. If you should erase the formula in the field, simply copy and paste the formula from the box above or below in that same column. Save often. When beginning, enter the student ID number from the top of the front of the test. In the next column, please enter the researcher number you have been assigned. In the third, column please refer to the top left of the test and determine which group the participant was in. Below is the chart for which number you are to enter for each group.

- 1 = A Passages
- 2 = B Passages
- 3 = C Passages

Reading Comprehension Questions: The first part of the test in each group consists of 12 short answer reading questions. There are four questions for every reading passage. The first two out of the four questions concern information that is explicitly given in the text. The last two questions seek inferential information based on the reading. For all questions you will use a five-point scale, rating the answers written by students as 0-4. The criteria for each score are given below in Table 1. For each question, write the value of the score in the coding form that corresponds with that test item number (e.g., If the coded a student’s answer for question 5 as a 2, then you would find the field labeled “RCQ_5” on the coding form and enter a 2).

If there is a note on the test that the student did not finish in time or had to leave early, please enter a 9999 for any questions from the last question addressed on in order to indicate missing responses. If a question is left blank and there are no notes that the

student was unable to finish for some reason or the blank is between questions that were answered, please score the responses as 0.

Table 1
Reading Comprehension Scoring Rubric

Score	Criteria
4	The participant answers the question directly and cites specific evidence from the text in detail or makes multiple citations. In a few questions, a shorter answer is acceptable as it may cover the entirety of the response. For instance, question 2 in the C Passages asks what the Reverend Mother tells Paul is in the box. A student who responds with “pain” has accurately answered the question. In inferential questions, the student may use a warranted assertion based on the text as evidence of his or her position. For instance, a student may answer question 4 of the C Passages about why Paul is offended when he thinks the Reverend Mother calls him an animal by explaining that Paul is the son of a Duke, a position of privilege and her statement not only strips him of that but also portrays him as something less than any person.
3	The participant answers the question directly and accurately. If evidence is used, it is used ineffectively or unclear how it supports the answer.
2	The participant answers the question in a general or vague manner. The answer may be right, or not clearly wrong, but there’s not enough there to say that the student comprehended the passage well enough to answer the question. Additionally, this could include instances where the student has copied lines from the text that could be considered evidence to support an answer, but has not explained or given any indication of what that answer is.
1	The participant composes an answer which is incorrect though the content of the answer does address the question. For instance, if a student writes in response to question 2 in the C Passages that a needle is in the box, the student has written an answer that answers what the question is asking (what the Reverend Mother tells Paul is in the box) but in a way that the text does not support (i.e., answering “a needle” when the only answer the Reverend Mother gives is “pain”).
0	The participant does not answer the question or answers in a manner that does not address the question. This would include answering a question with a written statement that is nonsensical or “out of left field.” In inferential questions, this could be seen in students copying random lines from the text that do not pertain to the question.

Intertextual Open-Ended Question: The last section of every test is a response to an open-ended question. Please read the response of the student and count how many words the response is and enter that number in the “OER_word_count” field on the coding

form. If there is some confusion over the number of words, you can type the response into Microsoft Word and use the word count function located under tools to give the word count for the open-ended response.

Read the response again for references to texts the student made using Table 2 for indicators. A reference needs to be specific enough to clearly indicate one of the texts read, or a direct reference of knowledge from their own experience or prior knowledge for a dialogic connection. If a student references a point in the text and then elaborates on that point in subsequent sentences, only count it as a single reference. If the student brings up a separate point from the same text, count that as a new reference. For instance, if a participant makes a statement about controlling identity by pointing out that Offred is made to wear the red dress and then continues to talk about how Offred remembers that she used to have freedom to wear other dresses, count that as one reference. However, if the participant then writes about Ofglen’s pregnancy defining who she is in that society, count that as a separate reference to *The Handmaid’s Tale* as it is unrelated to the first reference.

Enter the counts on the coding table for each text. For instance, if there were two references to *The First Part Last*, enter a 2 under “1PL_Ref_#” on the coding form. Depending on the group the participant was in, there would be texts that he or she did not read. Enter a 0 for those fields. In example, a student who was in the C passages group did not read the excerpts from *The Handmaid’s Tale* or *The First Part Last*, so you would enter 0 in the “HMT_Ref_#” and “1PL_Ref_#” fields.

If a participant did not attempt a response to the open-ended question, enter a 0 for the word count and a 0 for all the reference count fields. If a note was made that a student did not attempt a response due to having to stop testing early, enter 9999 for the word count and all the reference count fields.

The last thing you need to do is count the number of different texts that participants referenced in their responses and enter that number in the “#_Texts_cited” field on the coding form. For example, if a participant made two references to *Dune*, a reference to *Water for Elephants*, and reference to something from their own experience (a dialogic connection), the number that would be entered in the “#_Texts_cited” field on the coding form would be 3 since three different texts were cited (*Dune*, *Water for Elephants*, and their own experience).

Table 2
Intertextuality Codes for Open-Ended Question Response

Code	Text Indicated
HMT	Reference to the excerpts from <i>The Handmaid’s Tale</i> : either the characters, places, events, or placement of the reading (i.e., “In the first reading...”). Subsequent sentences that expand the previous reference but provide no further detail or new reference to the text do not count as a new reference.

1PL	Reference to the excerpts from <i>The First Part Last</i> : either the characters, places, events, or placement of the reading (i.e., “In the first reading...”). Subsequent sentences that expand the previous reference but provide no further detail or new reference to the text do not count as a new reference.
DUNE	Reference to the excerpts from <i>Dune</i> : either the characters, places, events, or placement of the reading (i.e., “In the first reading...”). Subsequent sentences that expand the previous reference but provide no further detail or new reference to the text do not count as a new reference.
SWH	Reference to the excerpts from <i>The Schwa Was Here</i> : either the characters, places, events, or placement of the reading (i.e., “In the first reading...”). Subsequent sentences that expand the previous reference but provide no further detail or new reference to the text do not count as a new reference.
WFE	Reference to the excerpts from <i>Water for Elephants</i> : either the characters, places, events, or placement of the reading (i.e., “In the first reading...”). Subsequent sentences that expand the previous reference but provide no further detail or new reference to the text do not count as a new reference.
DC	Dialogic connections made to the texts: Connections to their own prior knowledge or lived experiences. The reference has to be a clear connection to something the participant has experienced or their prior knowledge.

Other fields: There are other fields on the coding form. Please do not enter any values in those fields. They either have formulas that will autogenerate values based on your entries or they are variables that will be calculated later. If a value is entered by mistake, please use the “undo” function to remove the entry.

Appendix J
Testing Schedule

Testing Schedules for Nelson Denny Reading Test (NDRT) and Thematically Connected Dialogic Pedagogy (TCDP) Test

NDRT

<u>Day</u>	<u>Periods</u>	<u>Teacher (Administrator)</u>
1	0	Bean (Hill)
	2	Boggis (Hill)
	4	Bean (Turner)
	6	Boggis (Turner)
2	3	Boggis (Hill)
		Bunce (Turner)
	5	Boggis (Turner)
		Bunce (Hill)
3	3	Bean (Hill)
	5	Bean (Turner)
	6	Make-up Exam (Hill)

TCDP

<u>Day</u>	<u>Periods</u>	<u>Teacher</u>	<u>Group (Administrator)</u>
1	0	Bean	TC and Control (Turner)
			TCDS (Hill)

	2	Boggis	TC and Control (Hill) TCDS (Turner)
	4	Bean	TC and Control (Turner) TCDS (Hill)
	6	Boggis	TC and Control (Turner) TCDS (Hill)
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2	3	Boggis	TC and Control (Hill) TCDS (Turner)
		Bunce	TC and Control (Hill) TCDS (Turner)
		Bean	TC and Control (Hill) TCDS (Turner)
	5	Boggis	TC and Control (Hill) TCDS (Turner)
		Bunce	TC and Control (Hill) TCDS (Turner)
		Bean	TC and Control (Hill) TCDS (Turner)
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