St. Catherine University

SOPHIA

Masters of Arts in Education Action Research
Papers

Education

7-2021

The Effects of Reciprocal Teaching on Reading Comprehension in the Virtual Middle School English Classroom

Sydney Jones
St. Catherine University, sydhip@gmail.com

Follow this and additional works at: https://sophia.stkate.edu/maed

Part of the Education Commons

Recommended Citation

The Effects of Reciprocal Teaching on Reading Comprehension in the Virtual

Middle School English Classroom

Submitted on July 20, 2021

in fulfillment of final requirements for the MAED degree

Sydney Jones

Saint Catherine University

St. Paul, Minnesota

Advisor Amy Adams   Date July 20, 2021

Acknowledgements

Abstract

This study looked the effectiveness of PRESS Reciprocal Reading interventions (PRESS) when applied in a 100% distance learning environment with minority 7th & 8th grade students from an urban charter school in a major city in the upper Midwest. Data was collected using student grades on practice activities based on accuracy, teacher notes, and the standardized FASTbridge aReading test given at the beginning and end of the school year, Overall, students did not show positive progression in their reading abilities. The Covid-19 distance learning environment had a big impact on this; getting to know new technology is challenging especially on top of learning new skills independently. The absence of access to breakout rooms for the majority of the intervention also prevented students from working with one another to give immediate feedback; this is what I would work to improve in either a virtual or an in-person learning environment in the future.

Keywords: PRESS interventions, reading, distance learning, reading intervention, reciprocal teaching, FASTbridge aReading

Reading is something we do every day. When we don't read carefully, or when we don't understand what we read we make mistakes that matter. We might misunderstand our insurance coverage and end up paying way more than planned, or we might make mistakes while trying to follow directions resulting in an incomplete or ruined project. Reading is a vital skill, even, and especially, as we increasingly use technology. However, many middle and high school students read far below grade level.

This challenge gets in the way of students' ability to complete assignments and learn in class. Furthermore, this decreases their ability to perform job-based reading and attain a job. It makes further education significantly more difficult than it would be if they were not reading behind grade level. In 2018, 40.2% of Minnesota's public-school students and 50.1% of Minnesota's private school students that took the MCA test did not meet the reading standards for their respective grades (MDE, 2018). Our students need more reading support in order to catch up to grade-level peers.

Without intervention, secondary students who struggle with reading will continue to fall behind their peers (Pyle & Vaughn, 2012). Additionally, teachers expect secondary students to understand texts that become increasingly challenging and specialized (Lai, Wilson, McNaughton, & Hsiao, 2014). Thankfully, on a more positive note, the research overwhelmingly concludes that secondary students can improve their reading skills if adequate interventions and support are in place.

The Path to Reading Excellence in School Sites (PRESS) reading interventions provide students with research-based reading comprehension instruction, modeling of reading behaviors, and consistent formative feedback. The research confirms that the most effective secondary reading interventions are those that have a significant focus on teaching comprehension

strategies explicitly (Lipson & Wixson, 2012; Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll, 2016; Jones, Conradi, and Amendum 2016; & Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020). The PRESS interventions address comprehension strategies including predicting, questioning, clarifying, and summarizing. Another highly recommended practice is using modeling such as completing a read-aloud or think-aloud to show students what goes through a good reader's mind as they try to understand a text (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020). The PRESS interventions are based on a gradual release of responsibility model that begins with teacher modeling. Throughout this intervention students have opportunities for formative feedback from peers and their teacher followed by continued practice. The formative feedback loop is vital to student reading success (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020; & Lipson & Wixson, 2012).

All content area teachers need to address literacy practices in their classrooms if students are going to have a chance to succeed (Zwiers, 2010; Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020; Lai, Wilson, McNaughton, & Hsiao, 2020; Filkins, 2013; Lipson & Wixson, 2012; & Pyle & Vaughn, 2012). This research explores an intervention that can be implemented during traditional reading assignments in any subject area making it vitally relevant to students' educational needs.

Beginning in middle school students receive limited direct literacy instruction and support even if it is still needed. Additionally, at this point students have shifted from learning to read to reading to learn and they need to read to learn about complex new concepts for each of their courses. Many secondary students read several years below grade level which prohibits them from succeeding in courses, college, and careers. Providing an additional course or pull-out services for all of these students is unrealistic, so the goal of my study is to find and implement

an effective system to provide more support for students' reading within the general education classroom. I want to answer the question, "How well does the implementation of reciprocal teaching interventions work for improving reading comprehension in the virtual middle school gen. ed. ELA classroom?"

Theoretical Framework

Bandura's Social Cognitive Theory of learning provides a framework for the PRESS reciprocal teaching reading comprehension interventions used in this experiment. Bandura (2003) determined that people don't just receive knowledge, they create it and that their environment is a big influence on the knowledge they build. People change based on the ideals of those around them, what they experience, and what is expected of them. A general example of this is violent or militant groups of people that change, over time, and become peaceful as they learn how to compensate for their limitations more productively (Bandura, 2003). Furthermore, Bandura (2003) claims that there are four parts in the learning journey of modeling and observational learning; firstly, a demonstration, then the learner needs to try it on their own, thirdly, the learner needs to apply their new knowledge authentically, and finally, they need motivation to go through this practice process (Bandura, 2003). Lastly, the Social Cognitive Theory posits that self-efficacy is also a large component of the learning process. In order to build self-efficacy, Bandura (2003) suggests that people need to have mastery experiences rooted in work with which they are actually challenged, seeing others like themselves succeed through sustained effort, and by being persuaded that they can achieve something prior to the actual accomplishment.

The PRESS reciprocal teaching reading comprehension interventions begin with the instructor modeling each of the four comprehension strategies: summarizing, questioning, clarifying, and predicting. This is congruent with Bandura's (2003) Social Cognitive theory. In one experiment Bandura completed, adults either fought with or were nice to a Bobo doll while a child watched, then he found that the child mimicked what they had seen when it was their chance to play with the doll. Like the children in Bandura's experiment, the students in this study will practice applying the skills in small groups where they can work with and receive feedback from their peers as they go through their reading and the summarizing, questioning, clarifying, and predicting steps. This, then, gives the readers opportunities to apply their new skills authentically as they read for class or otherwise. A major component of this intervention's success is helping students to recognize their own self efficacy. This is done by providing several practice opportunities with which learners are likely to find success as a result of the group they work with that provides both social modeling and social persuasion as the group gains confidence in their abilities as their practice continues.

Review of Literature

In the opening of his book, Zwiers (2010) claims that "reading is like rocket science -- only more complicated" (p.3). As fluent readers, we do not realize how much it goes into the process of reading because it has become an automatic reading habit (Zwiers, 2010). Zwiers and other researchers agree about the habits successful readers exhibit: knowledge of word definitions, fluency (reading quickly and accurately), identifying and understanding the text's structure and organization, monitoring their understanding, summarizing, overall use of comprehension strategies (Jones & Addendum, 2016; Pyle & Vaughn, 2012; Scammacca, Roberts, Cho, Williams, Roberts, & Vaughn, 2016; & Zwiers, 2010), making inferences (Jones

& Addendum, 2016 & Zwiers, 2010), visualizing (Scammacca, Roberts, Cho, Williams, Roberts, & Vaughn, 2016), and having motivation (Pyle & Vaughn, 2012; Scammacca, Roberts, Cho, Williams, Roberts, & Vaughn, 2016).

Surprisingly, "students that read for an average of 21 minutes a day outside of school reliably scored in the 90th percentile on reading achievement tests" in comparison with "students who read for one minute per day [who scored] in the 10th percentile" (Fisher & Frey, 2018 p.90). Furthermore, "only 36% of eighth-grade students read at or above a proficient level" (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020, p.203). Reading instruction and intervention is overlooked because content area teachers have many content standards they need to meet in a year. They are overwhelmed with the variance in reading levels amongst students and do not have adequate literacy training and materials to meet students' reading needs. Additionally, teachers expect students to understand texts that become increasingly challenging and specialized (Lai, Wilson, McNaughton, & Hsiao, 2014). Despite these challenges, all content area teachers need to address literacy practices in their classrooms if students are going to have a chance to succeed (Zwiers, 2010; Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020; Lai, Wilson, McNaughton, & Hsiao, 2020; Filkins, 2013; Lipson & Wixson, 2013; & Pyle & Vaughn, 2012).

In the U.S., the need for reading intervention did not gain attention until WWI when "the U.S. military discovered that thousands of soldiers were unable to comprehend simple written instructions, bringing the issue of older struggling readers to the forefront as a matter of national security" (Smith, 2002 as cited in Scammacca, Roberts, Cho, Williams, Roberts, & Vaughn, 2016, p.762). When the U.S. military found countless soldiers to be functionally illiterate during WWII, there was a second insurgence of motivation to develop reading interventions (Smith,

2002 as cited in Scammacca, Roberts, Cho, Williams, Roberts, & Vaughn, 2016). In 1965, the

Elementary and Secondary Education Act provided funding for schools to add reading

interventions and support for low-income students. However, there are not enough reading

specialists to meet the demand (Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, &

Carroll, 2016). The IDEIA Act (Individuals with Disabilities Education Improvement Act) in

2004 created space for schools to use the response to intervention (RTI) processes to identify

students that struggle to respond to general education courses and require special education

services. This act helps ensure that students in need get interventions based on evidence-based

curriculum, smaller class environments, individualized support, and more time of instruction

(Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll, 2016).

Additionally, reading interventions are expensive in terms of teacher time, materials, and

professional education (Amendum, Amendum, & Almond, 2013, as cited in Jones & Amendum,

2016). Without intervention, secondary students who struggle with reading will continue to fall

behind their peers (Pyle & Vaughn, 2012). Thankfully, on a more positive note, the research

overwhelmingly concludes that secondary students can improve their reading skills if adequate

interventions and support are in place.

Unfortunately, students have found ways to get around the reading expected of them in

schools. In his article "Not Reading: The 800-Pound Mockingbird in the Classroom," William

Broz (2011) takes the firm stance that students get through school *not reading* but still getting

good grades. For twelve years, the students in his undergraduate courses have told him that they

did not read the assigned books in high school. Broz (2011) emphasizes that students will not be

able to pass the course if they do not read. However, still, 20% of his students attempt another

not reading of the book, and a couple in each course plagiarize their written responses and essays

from material found using Google. The fact that so many students get by without reading says a lot about what we, as teachers, are expecting students to *do* with the reading. We enable *not reading* by using study guides, comprehension quizzes, providing summaries of the reading during class, and even playing the audio or video adaptation for students during class time (Broz, 2011). Teacher's expectations allow students to get by without reading. Broz (2011) reminds us that reading a book in class is not just to prove that we know what happens; it is to practice reading and interpreting the text.

Many students have lost motivation for reading by the time they enter the secondary grades, but if we are going to help them become better readers, they have to read. Gallagher (2003) suggests that in order for this to happen, we have to help them see how they will benefit, and prove to non-readers that they are wrong about reading. Isero (2014) posits that providing students with a Kindle to read allows them to begin a new relationship with reading allowing them another opportunity to identify as readers. He also asserts that students reading with a Kindle evade being 'caught' by peers with a physical book (seen as a social faux pas). Furthermore, it allows students to camouflage which books they read, allowing struggling students to read lower-level books without the threat of peer judgment (Isero, 2014).

In order for students to be motivated, they need to find some sense of pleasure in reading. If the only motivation they have for reading is to get a grade, they will not engage with the text (Moley, Bandre, & George, 2011). Pleasure is a major motivating factor for student reading (Wilhelm & Smith, 2016; Gallagher, 2003). Wilhelm and Smith (2016) argue that pleasure has been neglected in the secondary school setting and identify four types of pleasure that occur through reading. Immersive play pleasure is all about getting lost in the book. Intellectual pleasure derives from finding an answer to a question, solving a problem, or making

predictions about what might come next. Social pleasure comes when people connect with others using reading, including talking about reading and learning about themselves or others. Finally, the pleasure of work comes "from using a text as a tool to accomplish something" (Wilhelm & Smith, 2016, p.29).

Moley, Bandre, and George (2011), Isero (2014), Wilhelm & Smith (2016), and Fisher & Frey (2018) concur that the most vital component in getting students motivated to read is providing them choice over what to read. Giving students choices is easier said than done. The value of having everyone in a class read the same book is that a teacher can manage student reading more easily. The teacher can assess whether or not students read because they are familiar with the contents of the book, and it is easier for the teacher to create assignments that all focus on just one text. More student choice does not necessarily mean that teachers will have read all of the books their students choose to read. One way to manage this is by designing units around a theme or an essential question instead of using a singular text as the fulcrum of the unit (Broz, 2011; & Fisher & Frey, 2018). Doing this allows space for differentiation between texts to match individuals' abilities and interests (Broz, 2011).

It is paramount that we help students to see the importance of reading and its relevance in their lives. Gallagher (2003) suggests that we do this by incorporating mini-lessons about the application of and reasoning for reading throughout the year. Beyond reading for pleasure, Wilhelm and Smith (2016) suggest giving students opportunities to use reading for real-world activities like service-learning projects and answering their queries. In his book *You Gotta Be the Book*, Wilhelm (2016) suggests that we work to find ways to help students connect with literature through theatre and art, which are activities students often enjoy.

Gallagher (2003) and Fisher and Frey (2018) are adamant that we need to stop grading and tracking reading. Making students complete reading logs decreases how much they read (Fisher & Frey, 2018), and once students know that we will grade their reading, they lose motivation (Gallagher, 2003). Instead of grading reading and stalking student progress, Gallagher (2003) suggests using reading as a prerequisite for a grade instead of giving it a grade. For example, a requirement for getting an A in the course could be that the student has read two full books.

It makes sense that if students read more, they will become stronger readers. Several studies have found a strong correlation between increased reading volume and overall achievement (Gallagher, 2003; & Fisher & Frey, 2018). Even so, it is alarming that the average amount of time spent reading is 7.1 minutes a day, and high school seniors spend about as much time reading literature in school as kindergarten students (Gallagher, 2003, p.6). Mol and Bus (2011) highlighted that increases in time spent reading for leisure outside of school were especially impactful for elementary and middle school students and low-ability readers' improvement (as cited in Fisher & Frey, 2018; & Vaughn et al., 2013). If we expect students to become better readers, they need time to practice reading (Gallagher, 2003). It is important to note, though, that increased reading volume does not make up for quality deep-reading that is scaffolded to support students in making meaning from challenging texts (Fisher & Frey, 2018). To increase reading, students need more high-interest reading materials (Gallagher, 2003; & Fisher & Frey, 2018). Classroom libraries are vital for increasing students' access to reading material because they become surrounded by books. The International Reading Association (2000) recommended seven per student in each classroom and twenty per student in school libraries (as cited in Fisher & Frey, 2018, p.91).

Gallagher (2009) shared that we need to find the "sweet spot" of instructions where we challenge students, and we do not over-teach (as referenced in Moley, Bandre, & George, 2011, p.90). In other words, we need to work to stay in Vygotsky's (1978) Zone of Proximal Development (as cited in Lewis, 2017). This can be done by supporting students just enough to do work that they are not already able to do on their own while being careful to avoid doing anything that a child could do for themself (Lewis, 2017). Teachers need to be sure not to 'rescue' students by doing work for them and instead work on scaffolding their attempts by helping students use the skills and resources they already have to do the learning themselves (Lewis, 2017). Helping students do the learning themselves and focusing on what they can do instead of what they struggle with gives them a chance to feel successful (Lewis, 2017).

Each reader needs something different, making it challenging to teach in each student's Zone of Proximal Development during whole-class instruction (Lewis, 2017). Thus, balanced interventions can be a waste of time because some students do not need the help they are receiving (Jones, Conradi, and Amendum 2016). In order to combat these issues, the research suggests working to individualize instruction and provide it in small groups so that students get the lessons that they need when they are ready for them (Lewis, 2017; Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll 2016; Gallagher, 2003; & Jones, Conradi, & Amendum, 2016). Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll (2016) suggest taking into account struggling readers' history, including schooling, family life, and physical health, to create an individualized learning plan that meets their needs. Lipson and Wixson (2012) add to this by asserting that while we should make research-based instructional decisions, we need to pay attention to what specific knowledge students have already and avoid implementing scripted plans as they are less personalized.

The most effective secondary reading interventions are those that have a significant focus on teaching comprehension strategies explicitly (Lipson & Wixson, 2012; Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll, 2016; Jones, Conradi, and Amendum 2016; & Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020). Reading comprehension strategies include note-taking, creating a mental image during reading, making inferences and predictions, asking and answering questions, and monitoring one's own comprehension. Another highly recommended practice is using modeling such as completing a read-aloud or think-aloud to show students what goes through a good reader's mind as they try to understand a text (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020).

A considerable component of any successful learning is formative assessment and feedback, followed by another opportunity for practice (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020; & Lipson & Wixson, 2012). Assessment, including observation, is the base of successful interventions (Lewis, 2017; Lipson & Wixson, 2012; Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll, 2016; & Jones, Conradi, & Addendum, 2016). Thorndike first identified the necessity for accurate normative reading assessments to inform instruction in 1914. This led to the creation of the first standardized reading assessment, the Kansas Silent Reading Tests, in 1915 (Lewis, 2017). Jones, Conradi, and Amendum (2016) suggest using S.A. Stahl, Kuhn, and Pickle's (1999) reading assessment chart to determine which interventions students need. Their process involves choosing a student, observing them, and looking closely at their reading assessments. Then, using the reading assessment chart to find the most basic skill the student needs, and finally, planning an intervention for the skill, and implementing it for at least three weeks before evaluating the student's progress to inform further interventions.

There are several suggestions for how to do this best, but most researchers have concluded that, along with comprehension strategy instruction, readers need some form of authentic discussion component. These include reciprocal teaching and peer-assisted learning (Scammacca, Roberts, Cho, Williams, Roberts, Vaughn, & Carroll, 2016) as well as discussions in the Reading Volume Program (Fisher & Frey, 2018). In some way, readers need to have authentic conversations and engage in deep thinking about books (Moley, Bandre, and George, 2011). A classic method of facilitating book discussions is Daniels' Literature Circles (Fisher & Frey, 2018; & Broz, 2011).

Broz (2011) suggests that students use reading response journals while students read to record their thoughts and interpretations of their reading along with specific passage references with page numbers. When it is time to have a small group discussion, students can "mine" their journals to find discussion items (D.I.s), which include questions, comments, and quotes that they can bring to discussions. In order to ensure students complete the reading, the D.I.s can be an entrance ticket into a discussion group because students will not be able to generate original D.I.s without having read carefully and written their journal responses.

CRT or Critical Reading of Text is another, more structured method for facilitating discussions about a text (Wexler, Swanson, Kurz, Shelton, & Vaughn, 2020). In this method, teachers break a text into separate 'chunks' and write questions for each and write a culminating question for the text before the lesson. To start the class, the teacher guides the class or group of students through a preview of the text and vocabulary instruction of about three vital words that students need to know in order to complete the reading. Then, students go through a partner reading procedure alternating chunks. At the end of each section, the pairs stop, provide their partner feedback, and clarify confusion about the reading itself. Then they answer provided

questions before reading the next portion. When they get to the end, they work to answer the culminating question that requires students to think critically about what they just read. Answering the culminating question can be done as a writing activity or a discussion. It could be completed individually or with their partner depending on how much support students need to complete the task.

In the end, students need to read and engage with their reading. For this to happen, students need to be informed about texts through book talks (Fisher & Frey, 2018) and be surrounded by lots of high-interest books. Students should read extensively, often, and in-depth to provide challenge by quality text. We need to motivate them by providing reminders about the importance of reading and providing comprehension strategy instruction that meets individual needs. This instruction should include modeling through think alouds and opportunities for students to discuss and defend their understanding and interpretation of the text.

Educators need to remember that there is no one right approach "as long as there is expert teaching and careful attention to student progress" (Lipson & Wixson, 2012, p.114). Teachers need professional development opportunities (Lipson & Wixson, 2012) in order for them to keep learning to improve their reading intervention practices (Lewis, 2017). Teachers should also reach out to others and work as a team with other staff members to support students to the best of their ability (Lewis, 2017). Nevertheless, when mistakes happen, Lewis (2017) asserts that teachers need to accept responsibility for ineffective instruction and try to figure out another approach that will work. Accepting responsibility does not mean that the original instruction was invalid; it just means that "[you] did then what [you] knew how to do. Now that [you] know better, [you] do better" (Maya Angelou, as cited in Lewis, 2017, p.731).

Methodology

My research included following the Reciprocal Teaching interventions outlined by PRESS (Path to Reading Excellence in School Sites) from Minnesota Center for Reading Research and The University of Minnesota College of Education and Human Development. This is a scaffolded method of teaching reading comprehension skills including predicting, questioning, clarifying, and summarizing. I did have to modify the original outlined activities so that they were compatible with the online learning platform made necessary this year by the Covid-19 Pandemic.

Data collected includes the students' responses on practice activities I created to guide students through each step of the reading, predicting, summarizing, questioning, and clarifying process. These were used throughout the intervention. At the beginning and at the end of the intervention, students took the FastBridge Adaptive Reading (FAST aReading) standardized reading-benchmark test which measured overall reading comprehension improvements. Finally, I kept a teacher journal to track my notes about the instruction, its successes, and its failures. This provided a view of how each lesson went from my perspective. It also allowed a continuous reflective record to track where I modified and adjusted the intervention as needed in keeping with the methodology of action research (Hendricks, 2017).

The participants of this study included all 7th and 8th grade students at a charter school in a major city of the upper Midwest, United States. This included 96 total students split perfectly with 48 in each of the 7th and 8th grades. The students involved were enrolled in a required English Language Arts course and participated in the intervention activities as part of each day's lesson. The sample includes 41 students who took both the spring and the fall aReading

standardized assessment. This includes 22 girls and 19 boys and was representative of the 7th and 8th grade student population.

Table 1

Sample Demographics

	Girls	Boys	Total
7th Grade	14	8	22
8th Grade	8	11	19
Total in Sample	22	19	41

The process/lessons are adapted from the PRESS reading interventions (Minnesota Center for Reading Research & University of Minnesota College of Education & Human Development, 2019).

The first objective was for the student to make predictions using information from what they read to guess what would happen next or what the author would tell them next. In order to meet this goal, I guided a discussion about text structure after having students preview the text by looking through it briefly. To do this, I used a Think Aloud to model predictions I had about the text based on my own preview of the text. Started sentences using words like "I think," "I'll bet," "I suppose," and "I think I will learn." Then I was careful to follow up with an explanation saying "because. . ." and explaining my reasoning. After modeling, I guided the group in generating a few more predictions together. We attempted to choral read the first section of text together. I had already divided it into short sections which were delineated on their worksheet for the day. I guided the group to make predictions using the sentence stems (mentioned previously) and helped them to point out specific examples from the text that supported their predictions.

Once they had practiced as a whole group, I gave students time to work alone and generate a couple more predictions about the reading. Students shared their predictions via the chat feature in Google Meet so their classmates could see their response. This provided an opportunity for me to ask follow up questions such as "What leads you to think that . . .?" and "What evidence do you have that . . . could happen?" Finally, I asked students to self-reflect by answering the questions "Did my predictions connect with the text?" and "How did it help me to better understand the story?"

The second objective of the PRESS intervention was for the student to be able to generate and answer literal and inferential questions about the text. When we worked on this, I started class by asking students to share examples of what they have been told to do if they don't understand something and how that technique has or has not helped them. Then, I did a Think Aloud to model previewing the text and generating my own questions about it as I read. Afterwards, I had students share their predictions with the whole class using the chat feature on Google Meet.

I read the first section of the day's reading out loud for the class. I had previously divided the text into short sections so we knew when to stop and practice our new skills. As I read, I did a Think Aloud to model the questions I was asking including some detail-oriented questions and some inferential questions. I used the 5 W's and how as well as what if questions which students used later on when they practiced questioning. I was careful to point this out to the class so they would know. Once I modeled the first section, I read another section for the class and prompted students to write down their own questions on their worksheets using the 5 W's, how, and what if formats. When they finished, we took some time to share examples verbally and in the chat area.

To continue, I read the next section aloud, too, but I instructed students to pause and interject questions when they came up. We continued doing this until many of the students were participating in during-reading question generating. At each pause, I had students look back at their questions from previous stopping points to determine if they have an answer yet. They were instructed to answer the questions when/if the answers showed up as we read. After several days of reading and going through this process together in our virtual classroom, students were expected to practice both reading and generating their own questions for a small section of the reading. To wrap up this objective, I had students reflect about how asking questions helped them understand the text and how it was helpful to them as a reader using Peardeck which allowed them to type and submit private responses to my questions during my slides presentation.

The third PRESS objective was for the students to clarify words and sentences by reading, thinking about word chunks they do know, trying to sound out the words, asking themselves if it made sense, and, finally, asking an adult or friend for help if they need it. To introduce this objective, I asked students to share an example of a time they did not know a word in a text and to share how they figured it out (or tried to figure it out). A few students shared verbally, and a couple added to the chat, too. After looking through responses I shifted and reviewed predicting and questioning strategies by prompting students to walk me through the process for the first section of that day's reading assignment (which had pre-divided small sections). As they did this I was able to provide feedback. Again, this is still in the whole-class virtual setting, so even though just a group of students was walking me through the steps, all students could follow along and hear the feedback.

I read the next section of text and used a Think Aloud to model clarifying strategies to help students figure out difficult words or sentences. I included the following strategies: re-reading, thinking about word chunks I recognized, trying to sound it out, reading on, asking if it makes sense, and talking to a friend or adult. When I read the next section of the text, I asked students to pause and interject when they noticed an unclear sentence or word. Each time a student interjected I asked for volunteers from the class to use one or more of the six strategies (listed above) to clarify. I had to do a lot of work for the first few clarifications, but then students started to catch on and took over. Finally, students were given a worksheet with a step-by-step process that helped them to practice the clarifying strategies on their own. This was expected to be filled out in class, then for homework to complete the last portion.

The fourth objective was for students to use their own words to summarize the main ideas in order by retelling the big events that happened in a story or by sharing the main ideas and facts from a non-fiction text. When I first introduced this portion of the intervention, I helped to remind students of a previous story they all read and asked them to recall the main events that happened in that story. Then I explained to them that what they had just done was summarize the story for me. As another example, I told students a detailed story of my morning. Then, I told them that I was going to summarize the morning by only sharing the big ideas and followed suit by telling the story of my morning as a short summary. I had students discuss what was different about my two storytellings so that we could work to define a summary as a class.

I guided the class to review the predicting, questioning, and clarifying strategies with the next section of the text we were reading by having students explain what each strategy is. Then, I asked them to interject as we read it today to add in predictions, questions, and clarifications and share them with the class. I modeled asking questions before, during, and after the reading by

thinking aloud as I read the first section of text. Then, I went back and did a Think Aloud to model re-reading the first section and I stopped at challenging words or sentences and using the clarifying strategies previously learned.

Then I reviewed a third time to do a Think Aloud and model reading a text with the goal of summarizing. I pointed out thoughts about the main idea and big things I could include in a summary. Finally, I modeled summarizing this section of the text. I was sure to point out to students that I was using my own words to tell the main ideas in order. I directed students to use sentence starters provided on their worksheet as they begin practicing this, for example, "This text is about . . ." and "This part is about. . ." For the next step, I read the next sections of the text to the whole class and pushed them to recall the main ideas. I used the summarizing language of transition words (first, next, then, finally, etc . . .) to help them out. We continued working through the text and stopping at each stopping point to complete the worksheet and write down our summaries. For several stops, I had volunteers share their responses with the group so that we, as a class, could compare their summaries and have a conversation about what was included.

We still did not have access to breakout rooms at this point, so I had students work independently to summarize sections of the text by reading or listening to the text on their own and by following the guidance provided on their worksheet to write short summaries at each stopping point as homework. The first thing we did upon our return for the following class period was always reviewing several students' summaries from each stopping point. This allowed students to see examples and to receive feedback about what makes a quality summary.

The final objective was more generalized and encompassed the other four. This fifth objective was that the students would be able to use all four reciprocal teaching strategies

together by predicting before reading, summarizing, questioning, clarifying, and predicting during reading, and questioning, clarifying, summarizing, and checking predictions after reading.

To wrap up the journey for the day, we reviewed each of the 4 strategies (predicting, questioning, clarifying, and summarizing) by having students explain them and give examples. We continued reading the text (until we finished it) using the reading guides that led students through predicting, summarizing, questioning, and clarifying as they read. When we returned together as a whole class, I had students share their responses for each of these areas to serve as examples for others and to allow me a chance to ask follow-up questions and catch misunderstandings. We continued this process until we finished the whole class book.

This was done in a block-schedule formatted fully distance learning environment. I met with students for 1 hour twice a week for class which explains the length of our units. The 7th graders went a bit slower through both their book and through the reciprocal teaching strategies spending 9 weeks total in their unit while the 8th graders moved through the intervention in just 6 weeks since they were able to catch on to the concepts more quickly and had a somewhat shorter book to read. Overall, it seemed fairly clear when to move on to the next strategy, or to add it in, because student answers were more confident.

Data Analysis and Findings

The purpose of this study was to determine how well the implementation of reciprocal teaching interventions worked for improving reading comprehension in the virtual middle school gen. ed. classroom. The intervention was introduced in four phases; each had a separate focus including predicting, questioning, clarifying, and summarizing the text as they read. Data were

collected using standardized reading tests, in-class assignment scores, and supplementary teacher notes.

Reciprocal Teaching and Reading Comprehension

The goal of this study was to make a judgment about how effective the PRESS Reciprocal Teaching reading interventions were when they have been implemented in a virtual general education middle school class (Minnesota Center for Reading Research & University of Minnesota College of Education & Human Development, 2019). The researcher gathered data from a standardized reading test (FAST aReading) at the beginning of the intervention and again after it concluded. Secondarily, the researcher collected worksheets from students for every practice with the intervention. These were graded based on skill mastery. For example, if the student was expected to predict something that might happen in the text they would get credit if their prediction was somehow related to the previous reading; if it was completely unrelated they did not receive credit.

The score percentiles seen in table 2 are calculated differently for the spring assessment vs. the fall assessment to accommodate for expected progress throughout the year. Even though some students showed small gains in their test scores, their percentile may have dropped because of the modified calculation method. This was the case for 14 of the 41 participants or just over ⅓ total (34.15%). The percentiles averaged higher in the fall, at the start of the intervention, and dropped by 7.85% by the end of the school year.

Table 2

FAST aReading Average Percentiles

	Percentile Range	*Average Percentile*
Fall Score %	3% - 98%	54.46%
Spring Score %	2% - 99%	46.61%

Table 3 shows the change in students' percentile scores from the fall to the spring testing dates. There were only 6 students who increased their percentile score and an additional 3 that maintained their percentile throughout the school year. 78.05% of students had negative percentile changes.

Table 3

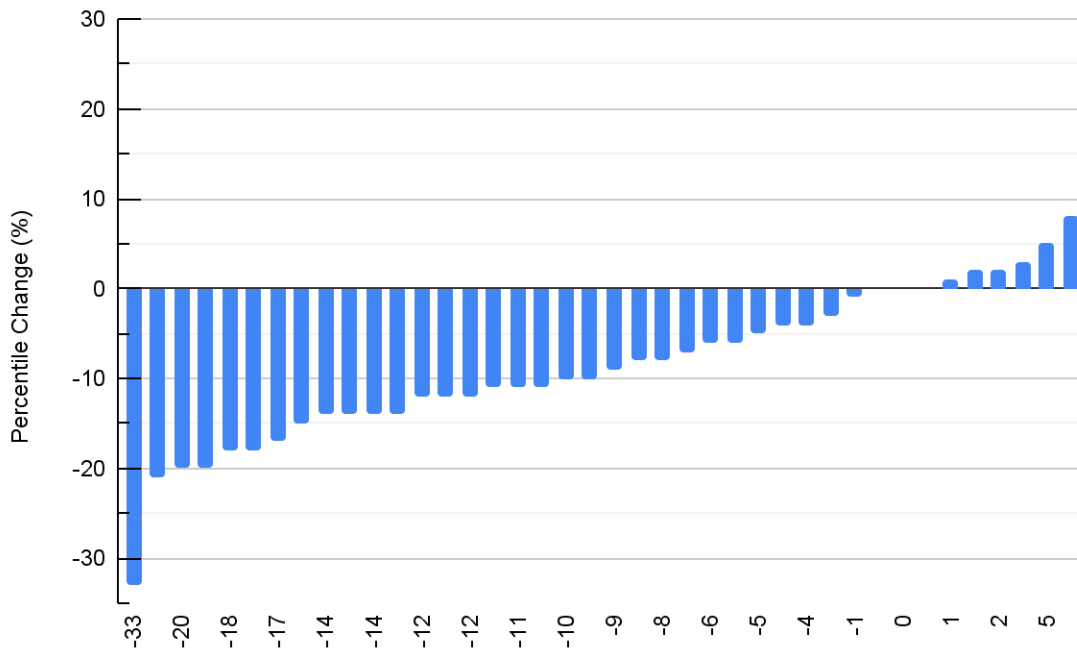*Percentile Changes in aReading Scores*

Table 4 clarifies how many students in each grade made negative or positive changes to their aReading percentile scores. There is some variation between grade-level groups, but they are fairly similar given the small sample size for each group. The 7th grade group had 6 students progress positively while the 8th had just 4, however, there was only a 6.22% difference between these numbers when compared to the total number of participants in the respective grade-level group. The number of students in each group that progressed negatively on their aReading percentile scores was 16 for the 7th-grade and 15 for the 8th.

Table 4

Grade Separation of aReading Score Changes

Grade	Negative Progress	Positive Progress
7th	16 students 72.73%	6 students 27.27%
8th	15 students 78.95%	4 students 21.05%

Participation in the Intervention

In order to guide student learning, participants were expected to fill out notes sheets while they read. These sheets included space for them to make predictions, ask questions, make clarifications, and write short summaries of the sections of text they were directed to read. Each objective was added as it was introduced in whole-class instruction leading to small group and individual work. The worksheets were graded based on task accuracy. If the expected task was clearly completed in relation to the section of text students read, they got full credit. If not, they lost credit accordingly for each problem on the practice sheet.

Tables 5 and 6 track the average score percent students earned on practice activities throughout the intervention. Table 5 tracks the 7th-grade students. The 7th-grade participants

who did not show improvement on their standardized FAST aReading test scores had a higher

percentage of accuracy (and completion) on their practice activities than the corresponding group

of 7th-grade students that maintained or increased progress. This is not consistent with the 8th-

grade class whose data is in table 6. They scored higher in predicting (by 6.08%), and clarifying

(by 4.02%), but scored significantly lower on the practice activities for questioning and

summarizing when compared to the scores of the students that either maintained progress or

improved throughout the unit. There were, however, students that scored below 25% on average

on all of the practice activities throughout the unit. 5 of these students were in the group that

made negative progress with their FAST aReading score percentiles, and 2 students were from

the group that maintained or improved their percentile scores. There were also 14 students in the

negative-progress group (Table 4) that scored 80% or higher average on their practice activities,

two of which scored above 98%. That makes up for 41.18% of the negative-progress group. The

positive-progress group had 6 students in it that scored above 80% average including 1 that

scored above 98% making up for 60% of the sub-group.

Table 5

7th Grade Practice Report

	Predicting #1 RSG	Predicting #2	Questioning #1	Questioning #2	Summarizing #1	Summarizing #2	Clarifying #1	Search in passing 11/6/20	An Educable Child 11/18/20	Finish RSG 11/30/20	Overall Averages
	PREDICTING		**QUESTIONING**		**SUMMARIZING**		**CLARIFYING**				
Average score % for each assignment	74.52	78.34	78.06	60.75	72.51	77.16	61.89	80.56	79.17	76.67	**73.63**
Average score % for this skill	**75.71**		**69.40**		**74.83**		**74.57**				
*Average score % for **negative aReading** progress group*	77.92	80	75	68.47	74.65	78.75	66.19	80	75	75	**75.36**
*Average Score % for this skill for **negative** aReading progress group*	**78.96**		**71.74**		**76.7**		**74.05**				
*Average Score % for **positive** aReading progress group*	71.11	76.67	81.11	53.03	70.37	75.56	57.58	81.11	83.33	78.33	**72.25**
*Average Score % for this skill for **positive** aReading progress group*	**73.89**		**67.07**		**72.97**		**75.09**				

Table 6
8th Grade Practice Report

	Predicting #1	*Predicting #2*	*Predicting #3*	*Question-ing #1*	*Question-ing #2*	*Summarizing #1*	*Clarifying #1*	*Last Ch. of Going Solo*	*Overall Averages*
	PREDICTING			QUESTIONING		SUMMARIZING	CLARIFYING		
Average score % for each assignment	70.11	51.55	59.71	50.57	53.87	58.15	47.8	62.01	**56.46**
Average score % for this skill	**60.46**			**52.31**		**58.15**	**54.91**		
*Average score % for **negative aReading** progress group*	72.89	54.67	59.44	48.67	51.11	57.78	46.13	68.67	**56.85**
*Average Score % for this skill for **negative** aReading progress group*	**62.33333333**			**49.89**		**57.78**	**57.4**		
*Average Score % for **positive** aReading progress group*	63.33	45	60.42	50	68.06	63.33	58	48.75	**58**
*Average Score % for this skill for **positive** aReading progress group*	**56.25**			**59.03**		**63.33**	**53.375**		

The results of the practice data do align with the expected testing outcomes of each group of students; the negative-progress group had a lower percentage of students showing consistently high scores on their practice activities (64.52%) than the positive-progress group (70%). A student that scored consistently high received at least 65% total on their average practice activity score. This correlation is expected since the goal of the practice activities is to help students improve the skills that will be tested; if they do better on the practice they should also do better on the tests.

Interestingly, even though the 7th and 8th-grade groups had comparable aReading percentile score changes from the fall to the spring (Table 4), the overall practice activity performance varied significantly. The 7th-grade group scored an average of 73.63% overall on practice activities (table 5) and the 8th-grade had an average score of just 56.46% (table 6). This is a 17.17% difference between the groups' practice performance, but they still had very similar results on the percentile change of their standardized aReading assessments from the fall to the spring.

Conclusions and Recommendations

This research aimed to find out how well the implementation of reciprocal teaching interventions work for improving reading comprehension in the virtual middle school general education classroom. The results show that students made little positive progress throughout the school year; only 10 of the 41 total participants made positive gains based on their FAST aReading score percentiles. This study was, however, conducted during the Covid-19 Pandemic when students (and teachers) were adjusting to full-time distance learning via live classes on Google Meet. This brought in several complicating variables.

Google Meet did not have breakout rooms when we started this intervention, so students were not easily able to work in small groups during class as was originally planned in reciprocal teaching. Instead, students learned and practiced the first 3 skills (questioning, predicting, and summarizing) alone. As I began introducing the clarifying component, Google Meet launched breakout rooms. This shifted the lessons and allowed students to work with assigned small groups.

We weren't, however, able to just jump into small group work easily; it takes time to learn how to use technology prior to being able to use it effectively. This got in the way of student progress in a big way. As clarifying was introduced, I also began introducing breakout rooms, first, teaching them how to join them and return to the main room, then working on re-introducing group work as students had been home and apart from peers for almost 6 months at the time. We struggled with several components of the breakout rooms:

- Students weren't familiar with the various tools included such as requesting help from the teacher and sharing screens with one another. These are examples of the technological skills that need to be explicitly taught prior to instruction/class participation that does or could involve said tool.

- I had to spend a lot of time setting expectations for breakout room behavior including staying in class, talking with your group, staying by the computer, going through the assignment I introduced at the beginning of class, and more. This consumed a lot of our learning time and distracted us from the actual PRESS reading intervention practice activities. They also often forgot the directions given prior to separating into small groups and did not have the written directions pulled up (or didn't look at them). This often

resulted in students logging out of class early or working on other assignments instead of

asking for help or trying to figure out what to do.

Online, it is important to find a way to get all students to pull up the written directions on

their own screens so they can follow along while I go over them; then they will be able to

find them when they are on their own. In-person this isn't as challenging since I can put

them on the board in the classroom and they won't get lost, but it would be valuable for

students to follow along so they can easily reference them later as needed.

- Students were unsure how to work in a small group without an identified leader or

  teacher. Most were shy and uncomfortable with turning their microphones on and/or

  didn't feel comfortable talking to peers like they typically would in a physical classroom.

  This was a completely different, and new, environment for them, and it was difficult to

  adjust.

In both potential learning environments, it is important to spend a significant amount of

time working to set clear expectations for students about what they are expected to do in

small groups; this will likely take more time in an online learning environment because

there are so many new things to learn (it is always changing). In the online space, make

sure students know what tools they have within the online video meeting environment so

that they are able to apply them. In both environments, be sure to find ways for students

to become comfortable with verbally chatting in small groups to participate. This was

very necessary for our online learning classroom, but I suspect it will continue to be an

important focus skill as we return back to in-person schooling after over a full year away

from peers. We also need to help distance learners find ways to make participation in verbal discussion possible based on their home-learning environment.

- I couldn't easily or quickly check in with groups to see if they were on track -- it took a significant amount of time to leave one and join another group, then find out what's going on, then help (if needed), and repeat. In a physical classroom, it is possible to monitor several groups at the same time, but on Google Meet's breakout rooms a teacher can only monitor one group at a time and is completely blind to all other students in the class.

  In the future, especially for an online learning environment, it would be helpful to develop a system akin to Nancie Atwell's workshop model (Atwell 2014). This would help to create a more organized way to check in with all groups and also help to set the standard that I consistently follow a pattern and check-in everywhere.

- Finally, students were not used to self-directed learning. In any learning situation, I plan to more explicitly teach self-directed learning/problem-solving skills early so that students don't depend on me as much for things they can figure out on their own.

In this case, the PRESS reading interventions were not authentically followed due to the limitations in place as a result of the Covid-19 Pandemic and distance learning. Students were not able to practice all skills in small groups as they were introduced because we did not have breakout rooms until about ¾ of the way through the intervention and, even then, students struggled to adapt to online small group work expectations. The modified version of the interventions required that students practice individually and review with the whole class in

order to get feedback rather than getting immediate feedback as they work with peers in small groups. This was not as effective as it could have been had students gotten immediate feedback.

Students often did not read the text out loud unless it was read to them during whole-class instruction. This is an important component of the intervention as it helps students both increase fluency and identify points of confusion and misunderstanding as they read. This is vital to the reciprocal teaching process because, when misunderstandings are found, the group members are there to help work together to clarify, teach, and give feedback to their peers. In the online classroom it is challenging to maintain this expectation without being able to monitor all groups at the same time, but working to make the value of this component very clear to students will, ideally, help them to buy in and actually do it. It would be helpful, in either the online or in-person environment, to craft groups carefully making sure to have a strong leader in each that will take charge as needed.

Many of the accommodations I would use in implementing this intervention again apply to both the online and in-person learning environments. When students are completely unfamiliar with procedures, such as in this new Covid-19 Pandemic distance-learning environment, they need to learn the environment before they can learn the content beyond that. Next school year, which looks to be fully in-person, will be interesting as students were familiar with the in-person environment, but then everything changed and it is changing again. It will certainly be valuable to teach students self-directed learning skills and put a big focus on group work expectations as they re-adjust to in-person learning. Once this structure is established the PRESS Reciprocal Reading interventions will have an opportunity to flourish since students will have the capacity to focus on the content learning as opposed to being distracted by the procedure.

References

Atwell, N. (2014). *In the middle: A lifetime of learning about writing, reading, and*

   adolescents (3rd ed.). Heinemann.

Broz, W.J. (2011). Not reading: The 800-pound mockingbird in the classroom. *English*

   Journal, 100 (5), 15-20. Retrieved from https://pearl.stkate.edu/login?url=https://search-

   proquest-com.pearl.stkate.edu/docview/864568589?accountid=26879

Filkins, S. (2013). Rethinking adolescent reading assessment: From accountability to

   care. *English Journal, 103*(1), p. 48-53. Retrieved from

   https://pearl.stkate.edu/login?url=https://search-

   proquest.com.pearl.stkate.edu/docview/442777012?accountid=26879

Fisher, D., Frey, N. (2018). Raise reading volume through access, choice, discussion, and

   book talks. *International Literary Association, 72* (1), 89-97. Doi: 10.1002/trtr.1691

Gallagher, K. (2003). *Reading reasons.* Stenhouse Publishers, 1-17.

Hendricks, C. (2017) Improving schools through action research: A reflective practice

   approach. Pearson Publishing, 4. United States of America.

Hinchman, K.A., & Sheridan-Thomas, H.K. (2014). *Best practices in adolescent literacy*

   instruction, 2. New York, NY, The Guilford Press.

Isero, M. (2014). Rekindle the love of reading. *Phi Delta Kappa International*, *95*(7), 61

   64. URL: www.jstor.org/stable/24374723

Jones, J., Conradi, K., & Addendum, S.J., (2016). Matching interventions to reading

   needs: A case for differentiation. *The Reading Teacher, 70*(3), 307-316. URL:

   www.jstor.org/stable/44001441

Lai, M.K., Wilson, A., McNaughton, S., & Hsiao, S. (2014). Improving achievement in

secondary schools: Impact of a literacy project on reading comprehension and secondary

school qualifications. *Reading Research Quarterly, 49*(3), 305-334.

Lewis, K. (2017). Lessons learned: Applying principles of reading recovery in the

classroom. *International Literary Association*, *71*(6), 727-734. doi: 10.1002.trtr.1663

Lipson, Y.M. & Wixson, K.K. (2012). To what interventions are students responding?

The Reading Teacher, *66*(2), 111-115. URL: www.jstor.org/stable/23322719

Miller, D. (2009). *The book whisperer: Awakening the inner reader in every child.*

Jossey-Bass, 21-37.

Minnesota Center for Reading Research & University of Minnesota College of Education

& Human Development, (2019). Path to Reading Excellence in School Sites: Intervention

Manual, (3rd ed.). Minneapolis, MN: Author.

Minnesota Department of Education, (2018). 2018 MCA 3 reading nonpublic filter.

Minnesota Department of Education. Retrieved from

https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=1

Minnesota Department of Education, (2018). 2018 MCA 3 reading public filter.

Minnesota Department of Education. Retrieved from

https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=1

Moley, P.F., Bandre, P.E., & George, J.E. (2011). Moving beyond readability:

Considering choice, motivation, and learner engagement. *Theory Into Practice, 50*(3),

247-253. URL: www.jstor.org/stable/23020789

Pyle, N. & Vaughn, S. (2012). Remediating reading difficulties in a response to

intervention model with secondary students. *Psychology in the Schools, 49*(3). DOI:

10.1002/pits.21593

Sarravllo, J. (2016). What can I work on as a reader: A self-reflection tool for finding

    Goals. URL:https://www.heinemann.com/jenniferserravallo/resources/assets/rsb-

    what_can_i_work_on_as_a_reader.pdf

Scammacca, N.K., Roberts, G.J., Cho, E., Williams, J.K., Roberts, G., & Vaughn, S.R.,

    (2016). A century of progress: Reading interventions for students in grades 4-12. 1914-

    2014. *Review of Educational Research, 86*(3), 756-800. DOI:

    10.3102/003465316652942

Wexler, J., Swanson, E., Kurz, L.A., Shelton, A., & Vaughn, S. (2020). Enhancing

    eading comprehension in middle school classrooms using critical reading routine.

    Intervention in School and Clinic 2020, 55(4), 203-213. DOI:

    10.1177/1053451219855738

Wilhelm, J.D. (2016). *"You gotta be the book" Teaching engaged and reflective reading

    with adolescents*, 3. Teachers' College.

Wilhelm, J.D. & Smith, M.W. (2016). The power of pleasure reading: What we can learn

    from the secret reading lives of teens. *The English Journal, 105*(6), 25-30. URL:

    www.jstor.org/stable/26359251

Zwiers, J. (2010). Building reading comprehension in grades 6-12: A toolkit of classroom

    activities. *International Reading Association, 2*, 3-28.

Appendix

Sample Practice Sheet for SOLO Work on PRESS Intervention

Red Scarf Girl "The Red Successors" ¶ 1-108

THIS HW IS A FULL CHAPTER, BUT YOU ALSO HAVE A FULL WEEK TO DO IT.

While you do today's reading you are expected to **highlight the most important thing in each big paragraph**. When you go back to look at each section you should be able to look at what you have highlighted and get an idea of what happened. Then you will write a short summary in **your own words** in the chart.

* * * Write in FULL sentences and use proper punctuation! * * *

Stop after reading paragraph #7		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #15		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #32		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #45		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.

Stop after reading paragraph #56		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #68		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #86		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #98		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.
Stop after reading paragraph #108		
Short Summary in YOUR Own Words	What is 1 QUESTION you have?	Make 1 prediction.

Post Reading:

1. Go back and read the questions you wrote in the chart above. If you now know the answer to any of them write the answer in the same box but mark it differently (ex. Make it **bold** or a different color).

2. Go back and read the predictions you wrote in the chart above.

a.   If the prediction came TRUE make the box green,

b.   If it was partially correct mark the box yellow AND write details about which part was right in the box but make it **bold**.

c.   If it was <u>NOT true at all</u> mark the box <mark>red</mark>. If you have notes to add leave them in the same box but in **bold** writing.

   3. **At the END of the chapter** summarize the WHOLE thing in 1-2 paragraphs. (Use FULL sentences and punctuation!)

.   Remember to:
   - Retell the story
   - Use your own words
   - Include:
      - Setting (where and when)
      - Characters (who)
      - Problem(s) (what)
      - Key events (what)
      - Resolution (how and why) - Why did the problem happen? How was the problem solved?

Write your summary here: