

Improving Reading Comprehension of Students from Low Socioeconomic Backgrounds

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## Abstract

The purpose of this research was to determine the impact of story mapping instruction on the reading comprehension of students from low socioeconomic backgrounds. The measurement tool used during this study was the Basic Reading Inventory. Participants were given the first-grade reading comprehension assessment prior to the intervention as well as after the intervention was completed. Reading comprehension growth was not statistically significant between the control and experimental groups; thus, the null hypothesis was retained. Further research with a larger sample size and extended intervention length would be helpful to determine the best practices for improving reading comprehension.

# **CHAPTER I**

## **INTRODUCTION**

### **Overview**

Reading is a part of school each day, and having good reading comprehension is essential to be successful across all subjects throughout schooling. Students who come from low socioeconomic backgrounds typically have lower reading levels than students from more affluent backgrounds. “The results of the ‘Progress in International Reading Literacy Study’ (PIRLS 2016) indicate that children with a high socio-economic status are one and a half school years ahead in terms of reading comprehension compared to their peers from a deprived background” (Leidig, Grünke, Urton, Knaak, & Hisgen, 2018, p. 233). Students living in poverty have less access to education related materials, lower parental involvement, and higher mobility rates when compared to their more affluent peers. These factors play a role in explaining why there is such a vast difference in reading levels. This is a problem that affects many students in schools across the country.

At the time of this study, the researcher had spent the past five years teaching in Title I schools, four of those years at a school with over 90% of students eligible for Free and Reduced Meals (FARMS). During the researcher’s time at these schools, there was a noticeable achievement gap between FARMS students and those the researcher taught at a more affluent school. Since reading comprehension is key to success in school for many years and across all subject areas, the researcher became interested in finding a way to improve reading comprehension and close the achievement gap between students living in poverty and students from affluent families. This study was designed to determine whether the use of a visual comprehension strategy would result in increased reading comprehension and ultimately improve

the performance of students from low income backgrounds who struggle with reading comprehension.

### **Statement of Problem**

The purpose of this study is to examine the effect of story mapping instruction on first-grade reading comprehension for students from low socioeconomic status, as determined by their Free and Reduced Meals (FARMS) eligibility.

### **Hypothesis**

First-grade students from low socioeconomic backgrounds who receive explicit instruction in story mapping will not perform differently in reading comprehension than those who receive general classroom instruction as measured by their scores on the Basic Reading Inventory assessment for first-grade reading comprehension.

### **Operational Definitions**

#### **Low Socioeconomic Status/FARMS Students**

The socioeconomic status of students is determined by their eligibility for the Free and Reduced Meals (FARMS) program. Families who qualify for FARMS have yearly, monthly, or weekly income that is below a guideline set by the federal government. With this program, students can receive free or reduced price meals while at school.

#### **Reading Comprehension**

Reading comprehension is the ability to understand and bring meaning to a text. It is the process of constructing meaning from words. Reading comprehension can be measured by asking students questions about a text that they have read or listened to.

## **Story Mapping**

Story mapping is a strategy that involves using a graphic organizer to help students understand the events or elements within a story and how the different pieces are related to one another. Most story maps include key features of a story like setting, characters, events, problem, solution, and theme. Story maps can be completed before, during, or after a story has been read.

## **Basic Reading Inventory**

Basic Reading Inventory (BRI) is a reading inventory designed by Jerry L. Johns (2012) to determine reading levels of students, giving specific data for accuracy, fluency, and comprehension. The BRI includes word lists, running records, and comprehension questions that are leveled by grade.



## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

The purpose of the literature review is to understand the connection between socioeconomic status and reading comprehension of students. The first section of information defines the term reading comprehension and explains the importance of this concept in academia. The second section examines the effect of socioeconomic status on reading ability and how parents, mobility, and lack of access to materials due to living in poverty have an adverse effect on reading comprehension. Section three explores specific interventions and strategies that have been proven effective in improving reading comprehension.

#### **Reading Comprehension**

##### **Definition**

Reading comprehension is the ability to understand and bring meaning to a text. Reading comprehension is the process of constructing meaning from words. Comprehension goes beyond simply recognizing words and sentences on a page, but instead is the ability to make connections and generate understanding from those words. “Meaning is constructed when readers make connections between what they know (prior knowledge) and what they are reading (the text)” (McLaughlin, 2012, p. 432).

Readers use a variety of skills to comprehend text as they read. These skills include previewing the text, generating questions, visualizing, decoding and finding meaning of unknown vocabulary words, reading with fluency, making connections with the text, activating background knowledge, summarizing ideas, making judgements, and self-monitoring.

McLaughlin (2012) states that when good readers notice that they are not constructing meaning,

they use a variety of “fix-up” strategies like rereading, changing pace, using context clues, and cross-checking cueing systems to make sense of the text.

### **The Importance of Reading Comprehension**

Comprehension is one of the five key components of reading. Although complex, comprehension is ultimately the most important component of reading. As a society, people read for the purpose of comprehending or understanding a text. “Reading comprehension is the process of constructing meaning from words. Comprehension goes beyond simply recognizing words and sentences on a page, but instead is the ability to make connections and generate understanding from those words” (Stagliano & Boon, 2009, p. 36). When students progress throughout school, reading comprehension becomes a necessary part of all instruction across all content areas.

Students who struggle with reading comprehension will have a more difficult time as school progresses and the other content areas begin to require reading of articles and textbooks. When students are in primary grades, it is important that students’ comprehension needs are addressed. Without the skills necessary to comprehend a text and understand information given on a page, students will struggle more and more with each passing school year. “The acquisition of ample reading comprehension skills is one of the main objectives of elementary education” (Leidig et al., 2018, p. 232). It is in the hands of the teachers and schools to identify these needs at a young age and implement the appropriate strategies and/or interventions to address these needs and help close the achievement gap between students living in poverty and their more affluent peers.

## **Effect of Socioeconomic Status on Reading Ability**

Research shows that students from low socioeconomic backgrounds tend to have lower reading abilities and comprehension levels than students from more affluent backgrounds. A study shows that “61% of struggling adolescent readers [attending urban high schools] had significant deficits in all of the reading components [word level, fluency, vocabulary, and comprehension]” (Hock et al., 2009, p. 21). Through their research, Hock et al. (2009) were able to identify that “living in an urban environment has been shown to exacerbate the educational risks and level of school failure associated with at-risk students” (p. 22). Students from low socioeconomic backgrounds are already at a disadvantage to their more privileged counterparts starting from their first day of school.

## **Parental Involvement and Access to Materials and Experiences**

There are a variety of factors at play that hinder reading ability in students from low socioeconomic backgrounds. These factors include, “early childhood academic experiences and education, poverty, social competence and class, neighborhood cultural socialization and crime rates, lack of employment and opportunities to grow outside the classroom and a fear of danger associated with their school environment. Additionally, poverty can have a profound negative effect on student academic performance” (Hock et al., 2009, p. 22). With all these factors working against the students from such a young age, it can cause serious deficits in their reading abilities, specifically comprehension. Many parents of students in these situations had poor experiences in school themselves and are unable to provide educational materials and experiences to their own children. Due to these limitations, parents are not reading with their children and providing informal discussions and conversations with their children about literature. Without those important conversations from an early age, it can cause students to have

a hard time making connections with a text when they do reach school-age. “An especially likely obstacle for comprehension is a lack of efficient strategies for relating the text to one's background knowledge and experiences” (Hock et al., 2009, p. 24). Furthermore, studies show parent involvement can predict a child's reading growth and that the more involved the parent is, the more likely the child will have success in reading. “The degree of parental involvement in a reading intervention for children in grades 1 through 4 who were nonreaders or were behind by one or two grade levels predicted children's reading growth” (Sénéchal & LeFevre, 2002, p. 445).

In addition, many of the families of struggling readers are living in poverty, meaning that the parents and guardians do not have the funds or the time necessary to provide enriching experiences or expose their children to books at an early age. Without the necessary background knowledge and prior experiences to connect and relate to the literature, these students will have a harder time comprehending the text. Therefore, students from low socioeconomic backgrounds lack experiences that other students from more affluent families may have had and are at a disadvantage in their reading abilities due to this factor. “Prior knowledge is critical for building a deep understanding of the text. Thus, adolescents without knowledge of the subject matter would be expected to gain far less from reading a text than those with such knowledge” (Hock et al., 2009, p. 24).

### **Mobility**

Another factor affecting students from low socioeconomic backgrounds is mobility. Mobility refers to the rates at which students change schools or move places of residences. Due to living in poverty, many students from low socioeconomic backgrounds move often and therefore change schools often. High mobility rates in this population of students can have

adverse effects on their education, especially in reading. As Alexander, Entwisle, and Dauber (1996) indicate

High pupil turnover and absenteeism are associated with depressed levels of performance. This partially reflects the classroom management challenges these disruptions present for teachers, but changing schools and places of residence can also be hard on children, perhaps especially so for young children whose academic foothold is often insecure. The Coddington Life Events Record, for example, which monitors stressful life events among children, places changing schools on a par with hospitalization of a parent for a serious illness or having a parent in jail for 30 days or less. (p. 3)

In addition to moving homes, learning a new classroom with new routines and meeting new classmates can also be stressful for students who change schools often. Not to mention that students who move often are not at school as much and therefore are not learning, are disengaged due to other stressors or concerns, have less time to build relationships with teachers and students, or may not receive the accommodations or necessary interventions due to a lack of data on the student.

### **Interventions and Strategies to Improve Reading Comprehension**

When students from low socioeconomic backgrounds are identified as struggling readers, there needs to be an intervention or strategy put in place to help those students reach their peers. Ideally, this need would be identified in the primary grades. This way the achievement gap is as minimal as possible, and students receive the extra support they need before they fall even farther behind. “Research supports that the explicit instruction of comprehension strategies

increases students' comprehension. Research further suggests that comprehension strategy instruction should begin in the primary grades" (McLaughlin, 2012, p. 435).

### **Story Mapping**

One strategy that studies prove to be effective in helping students with reading comprehension is story mapping. A story map is a graphic organizer that helps students understand the events or elements within a story and how the different pieces are related to one another. "Story maps provide a practical means of helping children organize story content into coherent wholes" (Davis & McPherson, 1989, p. 232). Most story maps include key features of a story like setting, characters, events, problem, solution, and theme. Story maps may differ from one another, but the goal is for students to record, organize, and comprehend information about the story (Stagliano & Boon, 2009).

Story maps allow students to organize their thoughts and understandings visually and are often used with students who have learning disabilities or are English language learners because they provide a visual avenue for their thoughts and allow students to record and process information. In addition, story maps can be used before reading to activate prior knowledge, record important information, and assist in group discussions. As stated by Boulineau, Fore III, Hagan-Burke, and Burke (2004), "story mapping directs student attention to relevant elements of stories using a specific structure" (p. 106).

### **Small Group Reading Instruction**

Small group reading instruction is a tried and true strategy for targeting the needs of diverse students with different reading levels. In small group reading instruction, teachers can choose groups of four to six students who are on the same reading level or the same "book band." The teacher could also choose to group students into strategy groups where they focus on

a specific component of reading, like comprehension strategies. During small group instruction, teachers have a better opportunity to work more closely with students and are better able to identify and target their individual needs. Furthermore, small group reading instruction allows for teachers to scaffold instruction based on student need. Also, teachers can conference with students during small group time and work one-on-one with a specific student on a skill he or she needs while the others in the group read and prepare for discussion. At the end of small group reading instruction, teachers facilitate a discussion between the students about the chapter or part of the story that they read during group. During this time, teachers can ask students questions about the text in a small group setting or one-on-one. Asking questions is skill used by many teachers to promote comprehension and encourage students to reread parts of the text that they might not understand. “Asking questions to promote higher-level thinking is often promoted as a way to challenge students...to think more deeply about text and share their thinking. Recent research in a variety of educational fields has indicated that follow-up questions may be used to move all students forward in their abilities to understand and respond to such questions accessing higher-level thinking” (Gilson, Little, Ruegg, & Bruce-Davis, 2014, p. 101).

### **RAP Strategy**

The RAP strategy is a peer-tutoring reading comprehension strategy that was designed to be a simple approach to help at-risk students that can be used daily and with a trained partner. The partner is a peer who has learned how to teach the strategy before implementing it. The purpose of having peers learn to teach this strategy is because many times in schools there is a lack of available human resources to lead interventions. By using higher-performing students as tutors, both the tutor and the struggling student receive benefits of the teaching. The term RAP stands for read, ask, put. The RAP strategy is proven to be effective across multiple grade levels,

especially with students who have learning disabilities or problems with reading comprehension. This strategy also includes a graphic organizer and recording sheet so that students can write down their thoughts as they use the strategy. Essentially, the steps of the RAP strategy are to read a paragraph, clarify unknown words, ask “what’s the main idea of the passage?”, and put the main idea in your own words (Leidig et al., 2018).

### **Interactive Read Aloud**

Interactive read aloud is a strategy that has been used in many classrooms to help students comprehend text, especially with on or above grade level literature.

The goals of interactive read-alouds are to expose students to a wide variety of texts, model fluent reading and meaning-making strategies, encourage discourse to facilitate understanding, lift the level of student thinking, and demonstrate behaviors students will be able to use independently in texts. (McClure & King Fullerton, 2017, p. 52)

During interactive read aloud, teachers can model for students how to use a multitude of fix-up strategies to make sure they are comprehending what they are reading. In addition, the teacher can facilitate whole class discussion using the read aloud text and can monitor for student comprehension through questioning and conversation. “Through interactive read-alouds, teachers can demonstrate how readers use multiple reading strategies simultaneously. Additionally, teachers frame questions and talk in such a way that promotes thinking beyond and about the text in an effort to extend students’ thinking” (McClure & King Fullerton, 2017, p. 52).

Lessons can last anywhere from 15-45 minutes, depending on the skills being targeted, the chosen text, and student engagement. Interactive read aloud is a step beyond just reading aloud to students because it encourages students to be active participants. Teachers may have students jotting down thoughts, questions, or ideas on sticky notes or in notebooks, completing



graphic organizers, or they may be discussing in groups, partners, or as a whole class. In addition, teachers can use any type of text to complete these lessons, including fiction and nonfiction. Books can be short and read in one day, or they can be longer chapter books that take multiple lessons to complete. According to Witte (2016), interactive read aloud can “teach [students] to engage with high quality literature that would broaden their worldviews and build their knowledge” (p. 29).

### **Summary**

The socioeconomic status of students affects their reading comprehension. Students from low socioeconomic backgrounds are at a disadvantage academically when compared to their peers from more affluent households. Reading comprehension is a critical part of education and without it, students will struggle across all content areas. Additional resources, strategies, and interventions need to be used to help close the achievement gap between these students and their peers.

## **CHAPTER III**

### **METHODS**

The goal of this study was to determine the effect of story mapping instruction on reading comprehension with first-grade students who qualify for FARMS.

#### **Design**

This study's design is quasi-experimental. It is quasi-experimental because the groups are not selected at random. The purpose of the study was to find an effective method, strategy, and/or intervention that will improve the comprehension of students from low socioeconomic backgrounds as determined by their FARMS status. The independent variable was story-mapping and the dependent variable was student comprehension of text as measured by the Basic Reading Inventory (BRI) for first grade. The grouping method is the nonequivalent control group design. This method was chosen because all the students were given a pretest using the BRI reading comprehension assessment for first grade, and then the experimental group received a treatment while the control group did not. Finally, all students were given a posttest using the BRI reading comprehension assessment for first grade. To determine if there were differences in reading growth between the experimental and control groups were evident, the researcher conducted an independent samples t-test with a significance level of  $p = .05$ .

#### **Participants**

Research for this study was conducted at a prek-5 Title I elementary school in the Anne Arundel County Public School System. The school enrolls about 495 students with 82% of the students being eligible for FARMS. This study used purposive sampling as the selected participants were determined by administration based on their comprehension scores on the Fountas and Pinnell Benchmark assessment. The participant group included 21 first-grade

students between the ages of six and seven. The participant group was 57% (12 students) female and 43% (nine students) male with 90% (19 students) identified as FARMS. Thirty-eight percent (eight students) of the students were English Language Learners (ELL), and none of students received special education services. With regard to racial composition, 48% (ten students) were Hispanic, 48% (ten students) were African American, and 4% (one student) were two or more races.

The participants were placed into two groups, a control group and an experimental group. The control group of ten students did not receive small group story mapping instruction, and nine of these students qualified for FARMS. The experimental group which contained 11 students did receive small group story mapping instruction and 10 of these students qualified for FARMS.

### **Instrument**

The instrument used in this study was the Basic Reading Inventory (BRI). This instrument determines students reading levels from grades pre-primer through Grade 12. Students' levels are determined as either independent, instructional, or frustrational, relative to their specific grade level. To use this instrument, a student is first given a word list and asked to read the words to the assessor. The assessor marks how many the student gets correct and uses the key to determine what grade level to begin the reading assessment on. Next, the assessor gives the student a story and asks them to read it out loud. As the student reads, the assessor scores the student based on their errors and self-corrections. Then, the student is asked a variety of comprehension questions to determine their comprehension levels. After the assessment, the student receives a score and level for accuracy and comprehension. What makes this assessment different from other commonly used assessments is that the students can achieve different levels for comprehension and accuracy.

According to the Mental Measurements Yearbook, the measure is reliable, but there seems to be a lack of studies on the validity of the assessment. According to one reviewer, there is adequate evidence and data supporting the reliability of the tests, using the test-retest method. The reviewers determined this by reviewing the information reported in the test manual and research.

### **Procedure**

Students participating in the study were placed into two groups, a control group and an experimental group. The students were then pre-assessed individually using the BRI assessment for reading comprehension. Since this study focuses on reading comprehension and many of these students struggle with accuracy and fluency as well, the story in the assessment was read to them while they followed along. This was done so that their accuracy and fluency would not interfere with their comprehension scores. Then the participants were asked the reading comprehension questions. They could look back in the text, if needed. Scores were determined for all 21 students participating in the study.

Following the pre-assessment, the control group (ten students) received their normal instruction (Daily 5) during this time. The experimental group (11 students) was broken down in three smaller groups, each meeting for 20 minutes with the researcher two to three times a week for four weeks. During their group time, students used story maps that included characters, setting, problem, solution, and sequencing to break down a story and understand the different elements that make up a story. Students worked independently and with partners with teacher scaffolding on the task. Lessons began with identifying and defining the terms characters, setting, problem, solution, and events, and progressed to classifying predetermined elements, identifying the elements with a partner, and ultimately to finding the elements individually.

At the end of the four weeks, the students were assessed again using the BRI assessment for reading comprehension again. The differences between students' pre- and post-assessment scores were then collected, analyzed, and compared based on the students' group membership.

## CHAPTER IV

### RESULTS

An independent groups *t*-test analysis was used to determine whether there were significant differences in the comprehension growth scores of first grade students using the Basic Reading Inventory (BRI), from the pretest to posttest, when comparing the experimental group to the control group. The results are presented in Table 1. The significance level for this analysis was set at  $p=.05$ .

Table 1 shows that in this study, there was not a statistically significant difference in reading comprehension growth scores of first grade students using the BRI between the experimental and control groups. The growth mean reading comprehension score was 12.73 with a standard deviation of 12.72 for students in the experimental group. The growth mean reading comprehension score was 10.00 with a standard deviation of 13.33 for students in the control group. The analysis revealed  $p>.05$  at .637, and therefore the null hypothesis was not rejected.

Table 1

*Independent Groups t-Test Analysis Comparing Experimental vs. Control Group*

Instruction Type	N	Average Growth Score	SD	t	df	P
Experimental Group	11	12.73	12.72	.480	19	.637
Control Group	10	10.00	13.33			

The results showed no significant differences in mean growth scores between the two groups of students. The findings from this study and the implications from the data collected will be compared, interpreted, and discussed in Chapter V.

## **CHAPTER V**

### **DISCUSSION**

The null hypothesis, that first-grade students from low socioeconomic backgrounds who receive explicit instruction in story mapping will not perform differently in reading comprehension than those who receive general classroom instruction as measured by their scores on the Basic Reading Inventory assessment for first grade reading comprehension, was retained.

#### **Implications of the Results**

The data collected during this study suggested that story mapping instruction would be beneficial for elementary at-risk readers. The BRI comprehension assessment showed a change in the mean score for experimental group of 12.7% and for the control group of 10.0%.

Students who participated in the story mapping group had a slightly higher change in score from pretest to posttest as measured by the BRI comprehension assessment. However, no statistically significant results were found, which supports the null hypothesis that students in the groups will not perform significantly different on their post-assessment.

Based on observations, the first-grade students who participated in the experimental group enjoyed working on this intervention. The students were excited and eager to work with a group that was different from their usual routine. At each group meeting, the students were exposed to authentic literature in a read aloud session. Instruction on story mapping was scaffolded, moving from modeling by the instructor to independently completing the story maps by the end of the study.

Based on the analysis of the data collected from both groups, it can be concluded that story mapping instruction did not make a significant difference in students' reading comprehension.

### **Theoretical Consequences**

This study provided evidence that explicit instruction in story mapping did not have a significant effect on first-grade students' reading comprehension skills, but overall the first graders did show improvement in their comprehension afterwards. This study is consistent with the previous research done using the same comprehension strategy, where comprehension was shown to improve after instruction in story mapping. In 2009, researchers Stagliano and Boon determined that "participants performed at low levels on the comprehension questions during the baseline phase, but after receiving one-on-one training on the story elements, their percentage of comprehension questions answered correctly immediately increased" (pp. 47-48). In addition, researchers Boulineau et al. (2004) found that all six students in their study showed a mean percentage correct on story-grammar knowledge of 31% and after instruction in story mapping their mean percentage correct increased to 84%. These studies acted as the theoretical background for conducting this story mapping intervention with first-grade students from low-socioeconomic backgrounds.

### **Threats to the Validity**

There were several factors that could have been possible threats to the validity of this study. The first threat was the duration and location of the study. This study only lasted four weeks, with each week only having two to three sessions per week for 20 minutes at a time. This totals to 200 minutes of instruction in story mapping. However, time was lost during the sessions to transition students to and from their separate classrooms, students being late from other reading groups or interventions they participate in, or students being absent from school. In addition, the group sessions for this study took place within a small classroom, surrounded by other teachers doing small groups, students working on independent assignments, and Daily-5



activities going on around the classroom. Many students were distracted by their surroundings and had a difficult time staying on task. In addition, nine of the 11 students in the experimental group were pulled from their own classrooms to work in a different one during the study, which provided for its own distractions of seeing new students and being in a new environment. Furthermore, the first grade at this school has some behavioral issues that added to the disruptions during this study. A longer period of time to complete the study as well as a more private setting within the school to conduct the study could have been more effective since the duration and location of this study could have impacted the results.

The second threat to validity is student participation in other interventions. Thirteen of the students participating in the study (seven in the experimental group and six in the control group) are involved in other reading interventions outside of their daily classroom instruction and this study. Their reading interventions take place for 20 minutes, every day of the school week. A sample of students who were not participating in any other interventions would have given more accurate findings, as their other interventions may have impacted their test results for this study.

The final threat to validity is the student sample. This sample was very small and only included 21 total students, 11 of whom were in the experimental group and ten in the control group. The number of students who participated in the study is not large enough to determine whether story mapping would improve the reading comprehension for first graders from low socioeconomic backgrounds. In addition, the sample size only included two students who are non-FARMS and 19 who are FARMS eligible. This is not a fair judgement of whether the story mapping intervention is more or less effective for FARMS vs. non-FARMS students. A larger sample size with a more even distribution of FARMS and non-FARMS students would have

been more effective for producing valid results, as these may have impacted the results for this study.

### **Connections to Previous Studies/Existing Literature**

There have been several studies done on the best intervention strategies for comprehension, many of these on story mapping and its effect on reading comprehension. “The use of story mapping procedures has been well documented throughout the literature as an effective reading comprehension technique” (Stagliano & Boon, 2009, p. 52). Stagliano and Boon (2009) went on to say that story mapping is especially beneficial for students who perform lower than their peers or have learning disabilities.

According to Davis and McPherson (1989), having a visual representation, like a story map, of the structure for stories, aids in reading comprehension as it gives poor readers more concrete guidance than questioning. Their research determined that “instruction using story map formats has been used successfully to promote comprehension” (Davis & McPherson, 1989, p. 235).

In a final study, it is also shown that story mapping can improve reading comprehension in students who have learning disabilities. Boulineau et al. (2004) determined that the effects of story mapping instruction offer promising results to support the use for students with learning disabilities.

### **Implications for Future Research**

The findings from this study did not show any significant differences between the control and experimental groups’ reading comprehension scores. For future research, a larger sample size of students could reveal possible differences in results. This study only included a total of 21 students. A larger population of students would allow for future researchers to compare results of

the groups more accurately and would show a more valid display of growth between students in the control and experimental groups.

In addition, a longer duration of time and frequency of lessons during the study may show more significant differences in comprehension scores. This study was only conducted for four weeks, with a total of two to three lessons per week. For future research, it would be beneficial to have a longer period of time to teach story mapping, as well as meet with students more often to allow students more time to understand how to use a story map to aid their reading comprehension.

### **Conclusion**

The goal of this study was to determine the effects of story mapping instruction on the reading comprehension of first grade students from low socioeconomic backgrounds. The results of this study did not show a significant difference in reading comprehension scores after explicit instruction in story mapping. Future research and studies are suggested to better analyze the effect of story mapping instruction on reading instruction. These studies should be done with a larger sample size and a longer treatment period, as they may show different results. Students who participate in story mapping for a longer period would have additional practice and be more likely to show an increase in reading comprehension scores.

## References

- Alexander, K. L., Entwisle, D. R., & Dauber, S. L. (1996). Children in motion: School transfers and elementary school performance. *Journal of Educational Research*, 90(1), 3–12. <https://doi-org.goucher.idm.oclc.org/10.1080/00220671.1996.9944438>
- Boulineau, T., Fore III, C., Hagan-Burke, S., & Burke, M. D. (2004). Use of story-mapping to increase the story-grammar text comprehension of elementary students with learning disabilities. *Learning Disability Quarterly*, 27(2), 105–121. <https://doi-org.goucher.idm.oclc.org/10.2307/1593645>
- Davis, Z. T., & McPherson, M. D. (1989). Story map instruction: A road map for reading comprehension. *Reading Teacher*, 43(3), 232–240. Retrieved from <http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=11973941&site=ehost-live&scope=site>
- Gilson, C. M., Little, C. A., Ruegg, A. N., & Bruce-Davis, M. (2014). An investigation of elementary teachers' use of follow-up questions for students at different reading levels. *Journal of Advanced Academics*, 25(2), 101–128. <https://doi-org.goucher.idm.oclc.org/10.1177/1932202X14532257>
- Hock, M. F., Brasseur, I. F., Deshler, D. D., Catts, H. W., Marquis, J. G., Mark, C. A., & Stribling, J. W. (2009). What is the reading component skill profile of adolescent struggling readers in urban schools? *Learning Disability Quarterly*, 32(1), 21–38. <https://doi-org.goucher.idm.oclc.org/10.2307/25474660>
- Johns, J. L. (2012). *Basic reading inventory* (Eleventh Edition). Dubuque, IA: Kendall Hunt Publishing Company.

- Leidig, T., Grünke, M., Urton, K., Knaak, T., & Hisgen, S. (2018). The effects of the RAP strategy used in a peer-tutoring setting to foster reading comprehension in high-risk fourth graders. *Learning Disabilities -- A Contemporary Journal*, 16(2), 231–253. Retrieved from <http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=136134312&site=ehost-live&scope=site>
- McClure, E. L., & King Fullerton, S. (2017). Instructional interactions: Supporting students' reading development through interactive read-alouds of informational texts. *Reading Teacher*, 71(1), 51–59. <https://doi-org.goucher.idm.oclc.org/10.1002/trtr.1576>
- McLaughlin, M. (2012). Reading comprehension: What every teacher needs to know. *Reading Teacher*, 65(7), 432–440. <https://doi-org.goucher.idm.oclc.org/10.1002/TRTR.01064>
- Sénéchal, M., & LeFevre, J.-A. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development*, 73(2), 445–460. <https://doi-org.goucher.idm.oclc.org/10.1111/1467-8624.00417>
- Stagliano, C., & Boon, R. T. (2009). The effects of a story-mapping procedure to improve the comprehension skills of expository text passages for elementary students with learning disabilities. *Learning Disabilities -- A Contemporary Journal*, 7(2), 35–58. Retrieved from <http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=48239413&site=ehost-live&scope=site>
- Witte, P. G. (2016). Teaching first graders to comprehend complex texts through read-alouds. *Reading Teacher*, 70(1), 29–38. <https://doi-org.goucher.idm.oclc.org/10.1002/trtr.1467>