

The Instruction of Effective Questioning and Discussion Strategies to Improve Reading
Comprehension

By Jayna Sawyer

Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Education

July 2015

Graduate Programs in Education

Goucher College

Table of Contents

List of Tables	i
Abstract	ii
I. Introduction	1
Statement of Problem	1
Hypothesis	1
Operational Definitions and Limitations	2
II. Review of the Literature	3
Importance of Reading Strategies for Students' Reading Comprehension	3
Problems Associated with Reading Comprehension	4
Reading Interventions	6
Summary	7
III. Methods	9
Design	9
Participants	9
Instrument	10
Procedure	10
IV. Results	12
V. Discussion	14
Implications	14
Threats to Validity	14
Comparison of this Study to Previous Studies or Literature	15
Summary and Conclusions	16

References	17
Appendices	20
A. Informal Discourse Measure	20

List of Tables

1. Independent t test Analysis of the Data	13
--	----

Abstract

The purpose of this study was to investigate whether the effects of questioning and discussion strategies impact reading comprehension for 2nd grade students. The participants of this study were 26 students enrolled in a Baltimore County school for the 2014-2015 school year. The students were divided into two groups in which both groups received regular whole group instruction. However, only one group received additional instruction on effective questioning and discussion strategies. The measurement tools used were an English-Language Arts diagnostic and culminating assessment designed by Baltimore County and the Informal Discourse Measure. This study involved a pretest/posttest design to compare data from April 2015 to data from May 2015, after the interventions were completed. The null hypothesis was supported for this study since there was no significant differences between the two groups.

CHAPTER I

INTRODUCTION

In many elementary schools reading is the driving focus of instruction above most other content areas because many students struggle with learning to read and reading is, of course, needed in order to be successful in all content areas. The National Reading Panel (2011) identified five key areas for reading instruction: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. According to Janzen (2003), research focusing on reading strategies has become an important area over the past fifteen years. There are many short-term and long-term studies that have been conducted and support that students receiving instruction with well-established programs benefit more than those students receiving traditional instruction.

It has been found that the majority of skills that a student needs to comprehend text are shared with spoken language skills (Nation & Angell, 2006). Therefore, comprehension strategy instruction can play an integral role in second grade because students have established their early reading skills in previous school years and are now beginning to read for meaning and still developing their oral language.

Statement of Problem

The purpose of this study was to investigate whether the effects of questioning and discussion strategies impact reading comprehension for 2nd grade students.

Hypothesis

The hypothesis is that the improvement of second grade students who are instructed using questioning and discussion strategies is not significantly different than those receiving general reading instruction.

Operational Definitions and Limitations

The independent variable is the questioning and discussion strategy instruction. The operational definition is the use of questioning strategies, genuine conversation instruction and accountable talk moves. The dependent variable is the improvement in reading comprehension. The operational definition is the reading comprehension score from Baltimore County Public Schools (BCPS) Constructed Response Rubric. This study is limited by the time frame of the review of the literature which covers information from 2001 to 2013.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This literature review discusses reading strategies in relation to their effects on reading comprehension for elementary students and explores interventions for improving students' reading comprehension through the use of strategy instruction. The first section of this literature review describes the commonly used reading strategies and their importance in reading comprehension. The second section of this literature review looks into the problems associated with reading comprehension. Finally, the third section of this literature review will examine and discuss reading interventions to improve comprehension through the use of strategy instruction.

Importance of Reading Strategies for Students' Reading Comprehension

When one thinks of reading in elementary school, it is often thought of in two different modalities; learning to read in the primary grades and reading to learn in the intermediate grades. All students have to begin with the stepping stones of learning to decode and read words in a text, however, it is important to go deeper into reading to delve into the more complex area of comprehension since the goal of reading is not only to read the words, but to understand the message that they are meant to convey (Mahdavi & Tensfeldt, 2013).

Reading comprehension is described by Ahmadi, Ismail, and Abdullah (2013) as being a complex process involving the reader's ability to understand both the surface and the hidden meaning of the text by using metacognition. Although students in the primary elementary grades mostly focus on the basic skills needed to read words, the reading standards that have been developed across the country emphasize the importance of reading comprehension in grades K-3 (Mahdavi & Tensfeldt, 2013). Since reading comprehension involves a complex process of

understanding, it is not a skill that is easily acquired by students; rather it requires that the teacher be knowledgeable and prepared to help the students improve their reading comprehension.

One of the most common methods to improving reading comprehension is through the use of reading strategy instruction. Palincsar and Schutz (2011) note that the goal of strategy instruction is to provide students with the means to effectively take on the complexities of reading comprehension in a manner that the strategies eventually become automatic skills used by the reader. According to the National Reading Panel (2011), the scientifically-based reading strategies that improve reading comprehension are monitoring comprehension, metacognition, using graphic and semantic organizers, answering and generating questions, recognizing story structure, and summarizing. In order to make the strategies eventually become automatic they cannot be taught in isolation. The strategies should be thought of as “a repertoire of thinking tools” that are best used based upon the demands of the text and the ability of the reader.

Problems Associated with Reading Comprehension

Reading comprehension is one of the most crucial life skills that students will learn throughout their school years. In their study of middle school students with reading-related learning disabilities, McCray, Vaughn, and Neal (2001) found that students were able to recognize the importance of reading and its impact on their future success. During the interviews conducted the students were asked what makes a good reader and the most common response acknowledged word recognition, decoding and fluency. The students would give examples of good readers based upon that reader’s ability to read quickly or ability to sound out unknown words. However, reading is much more than those foundational skills and as students move through school they are expected to be proficient readers and comprehend more complex reading

materials. Many students will struggle to move into the complex task of comprehension because they lack the skills and strategies that are needed.

Readers who struggle with comprehension tend to read superficially and are not likely to venture into constructive processes (Nation & Angell, 2006). In order for students to be able to move beyond the foundational skills and read more comprehensively, they have to be taught reading comprehension strategies and how to apply them when reading (Prado & Plourde, 2011). While it is known that strategy instruction is essential to increasing reading comprehension, it is not always taught thoroughly and with validity. Palincsar and Schutz (2011) state that strategy instruction has been separated from theoretical grounding causing the instruction to be decontextualized. They suggest that the strategies are taught as tools to aide in the goals of the reader and that the teacher needs to choose related texts to provide students with a more authentic experience and help deepen their understanding of the reading strategies. Since students are expected to apply strategies across various reading contexts, it is important that they understand how to apply and interchange strategies as the need arises (Pilonieta, 2010). This all in turn leads back to the teacher having an understanding of the strategies and how to teach them to the students.

In terms of strategies, there are three tiers of knowledge that the teacher must be familiar with and able to incorporate into strategy instruction. These tiers are described by Pilonieta (2010) as declarative - what the strategy is; procedural - how to do the strategy; and conditional - when and why to apply a strategy. It is important to start with declarative and procedural knowledge so that students can identify the strategies and how to apply them. Students who struggle with comprehension need to be instructed in the way that allows them to see the strategies modeled, then be led through guided practice, and lastly given time to practice using

the strategies (Prado & Plourde, 2011). Conditional knowledge is the most crucial to strategy instruction because the main purpose of learning reading strategies is for students to have the required tools needed to be metacognitive readers. This type of knowledge will take students to the next level of applying strategies to comprehension as they will be able to identify what strategy best suits their needs based on the variety of texts that they are expected to read.

Reading Interventions

Reading strategy instruction is one of the many different interventions or teaching models that addresses the area of reading comprehension. Duke and Pearson (2002), explain that good reading comprehension instruction needs to be balanced by including explicit instruction and time allotted for reading, writing, and discussion. According to the model that they created for instruction the teacher would include the following five components into instruction to ensure student success with the strategies they are learning. The five components include an explicit explanation of what the strategy is and how to use it, the teacher actively modeling the strategy, the teacher and the students collaboratively using the strategy, guided practice of the strategy while the teacher gradually releases responsibility, and concluding with the students independently using the strategy. Using this model of comprehension strategy instruction can lead to the opportunity for students to gain an understanding of all three tiers of strategy knowledge and eventually have the ability to select and use multiple strategies while reading one text.

Another means of intervention for reading comprehension is through the use of speaking and listening skills. According to Keene and Zimmermann (2013), when students have the common language of strategies they are better able to deeply discuss their insights and ideas about the text. They believe this will lead students to be more likely to retain and reapply what

they read. In her article, Mills (2009) shares six speaking and listening activities that relate to the repertoire of strategies that includes activating prior knowledge, making inferences, using knowledge of text structures, visualizing, generating and answering questions, and retell and summarize. The activities suggested vary between before, during, and after reading activities and often incorporate multiple strategies to complete the given task.

Reciprocal teaching is another teaching method used to improve student comprehension through the use of multiple reading strategies at one time. The reciprocal teaching model requires students to predict, question, clarify, and summarize the text they are reading and is implemented in a gradual release of responsibility method (Williams, 2011). This method is most often used with older students, but can be modified to be used with students in the primary grades as well. When implementing this model, teachers will meet the students at their zone of proximal development, model the use of the strategies and begin to gradually release the responsibility to the students, and scaffold the role of being the expert as the students move through their small group lessons (Pilonieta & Medina, 2009). Reciprocal teaching has proven to be a successful intervention as supported by the study conducted by Sporer, Brunstein, and Kieschke (2009) in which they found that students who participated in reciprocal teaching groups were better able to apply the summarizing, questioning, and predicting strategies when reading a text than their peers that received traditional instruction.

Summary

In conclusion, reading comprehension is a critical aspect of reading instruction that needs to be acknowledged in the primary grades and continually built upon to lead students to become lifelong active readers. There were three important concepts of reading strategies in relation to reading comprehension addressed in the literature review. First, reading comprehension and

reading strategy instruction have been defined and their importance has been described. Next, the problems that are associated with reading comprehension have been identified and explained. Finally, various interventions that could positively affect student reading comprehension have been reviewed.

CHAPTER III

METHODS

The purpose of this study was to investigate whether the effects of questioning and discussion strategies impact reading comprehension for 2nd grade students.

Design

The design that was used for the study was quasi-experimental with a pretest, treatment, and posttest format. There was a control group and a treatment group used in the study. The independent variable was the questioning and discussion strategy instruction, while the dependent variable was the improvement in reading fluency.

Participants

The participants used were 2nd grade students who were tested using the Informal Discourse Measure, created by the researcher (see Appendix A), along with an English-Language Arts diagnostic assessment and culminating assessment created by and designed for BCPS. The class was divided in half to create a treatment and a control group. The treatment group received explicit questioning and discussion strategy instruction three times a week in a small group setting. The treatment group was 38% female and 62% male. The control group received regular small group instruction. The control group was 46% female and 54% male. The students were seven and eight year olds. The school is located in a middle class area of Baltimore County. According to the School Progress Plan for Glyndon Elementary, 35% of students in Grades 3-5 are listed as in danger in Reading/English Language Arts based upon the MAP test scores from spring 2014.

Instrument

The instrument used to assess students reading comprehension was an English-Language Arts (ELA) diagnostic assessment and culminating assessment. The assessments were created by and designed for Baltimore County Public Schools (BCPS, 2013). The assessments included a writing activity based upon the Common Core State Standards. The students were instructed to read two different versions of the same story and were then asked to compare and contrast the two stories. The diagnostic assessment is used as a pretest to assess students' initial comprehension of the targeted standard. The culminating assessment is used as a posttest to assess students' learning and comprehension of the targeted standard following explicit instruction.

The instrument used to assess the range of classroom discussion was the Informal Discourse Measure. The assessment included a checklist to record the instance of each discourse type as it is used throughout a lesson to measure the frequency of teacher-led discourse to student-led discourse. The teacher-led discourse that was measured included *teacher inform* meant to provide information to students, *teacher direct* meant to provide directions to students, and *teacher question* meant to elicit a response from students. The student-led discourse that was measured included *student inform teacher* meant to provide information to the teacher, *student inform peers* meant to provide information to their peers, *student question teacher* meant to elicit a response from the teacher, and *student question peers* meant to elicit a response from their peers.

Procedure

This study was intended to investigate whether the effects of questioning and discussion strategies improved reading comprehension for 2nd grade students.

First, students were tested using the ELA diagnostic assessment in order to identify their initial comprehension of the targeted standard using the BCPS Grade 1-2 Constructed Response Rubric. Each student read two versions of the same story and then completed a writing activity in which they compared and contrasted the two stories. The class was then divided into 2 groups; the control group and the treatment group. The control group received regular whole group instruction. The treatment group received regular whole group instruction as well as instruction on effective questioning and discussion strategies. Over the course of four weeks, students in the treatment group worked in small groups 3 times a week. At the end of the five weeks, all students were re-assessed using the ELA culminating assessment to identify their final comprehension of the targeted standard.

The purpose of teaching effective discussion and questioning strategies is to help students increase their metacognition, or their thinking about thinking. It also meets the needs for becoming a 21st century learner who can take ownership for their own learning and synthesize that learning. During small group instruction students were introduced to genuine conversation, which is one of the techniques of being an active listener and an active participant in discussions. After students were able to demonstrate those two skills independently, the groups were introduced to accountable talk moves. These talk moves further incorporate effective discussion techniques by breaking down the elements of a conversation. The talk moves include revoicing, repeating, adding on, reasoning, revising, and wait time. Furthermore, the students learned how to ask meaningful questions through teacher modeling during genuine conversations and being encouraged to demonstrate curiosity by asking their own question about the text or their peers thinking.

CHAPTER IV

RESULTS

This study examines whether the effect of questioning and discussion strategies improved reading comprehension for 2nd grade students. Data for this study were gathered on pre and post measures for both the experimental and control groups. A growth score was obtained for two measures – discourse and diagnostic – by subtracting the pre test scores from the post test scores. The growth measures were then analyzed using the independent t test and results are presented in Table 1.

The data in Table 1 indicated that no significance differences at the probability level of p05 were obtained and thus the null hypothesis should be retained. The use of the independent t test is not a conservative statistical test in that it is possible that it would make an error that favored finding a significant difference and many researchers would desire the Analysis of Variance to be used as a more conservative measure. However, if no statistical difference is found with the more liberal t test; then, it would be impossible to find a significant difference with the more conservative Analysis of Variance; thus, the null hypothesis would be retained regardless of the statistical test used.

Table 1
Independent t test Analysis of the Data

		t	Df	Sig. (2-tailed)	Mean Difference
Growth Discourse	Equal variances assumed	-1.076	24	.293	-.538
Growth Diagnostic	Equal variances assumed	1.555	24	.133	.385

CHAPTER V

Discussion

This study examines whether the effect of questioning and discussion strategies improved reading comprehension for 2nd grade students. As found in Chapter IV, the null hypothesis was retained.

Implications

Retention of the null hypothesis indicates that the experimental treatment of questioning and discussion strategies instruction had no significant impact upon the students in the study. This means that the modified small group instruction including questioning and discussion strategies did not improve students' reading comprehension.

Although the null hypothesis was retained; all research studies suffer from possible threats to validity. These threats mean that there is a finite statistical probability called the Type I error that the study actually should have rejected the null hypothesis but in fact did not. The Type I error is by tradition and in the case of this study set at 5 chances in one hundred. Thus, there are 95 chances in one hundred that the null hypothesis should have been retained; but there are also, 5 chances in one hundred that it should have been rejected and that is due to various threats to validity.

Threats to Validity

The threats to validity are of two types: there are external threats and internal threats. External threats are basically due to the sample size and sampling strategy. Internal threats to validity arise from the design of the study.

The sample size for this study consisted of a small number of students chosen based upon convenience. Since the students were all in the same second grade class they were part of already

formed groups which could have affected the results due to differing characteristics or abilities that influenced their reading comprehension. The quasi-experimental study did not have randomization which could have limited the generalizability of the study.

Additionally, the treatment group was pulled daily by the regular classroom teacher during the English-Language Arts block while the other students were engaged in Daily Five. Therefore, while the students of the treatment group were receiving their instruction, the remaining students in the class were actively engaged and moving about the classroom to complete various learning and reading activities. This movement and activity could have affected the students' ability to focus while participating in the modified small group lessons.

Comparison of this Study to Previous Studies or Literature

Keene and Zimmerman (2013) found that when students have common language of reading strategies that they are better able to deeply discuss their insights and ideas about the text. Through discussions students are able to develop a deeper understanding of the text and are more likely to be able to reapply their learning leading them to be better readers. This is similar to the current study because these students participated in reading and discussion strategy instruction. The students were taught how to blend the two types of strategies to have discussions about the text, as well as their understandings, questions, and ideas.

According to Duke and Pearson (2002), effective comprehension instruction should be balanced in terms of providing explicit comprehension strategy instruction, as well as ample opportunity and time for real reading, writing, discussion of the text. This model of strategy instruction is supported by research and is implemented through the teaching of effective independent comprehension strategies and integrating those strategies with various effective comprehension routines in which students apply the strategies. While the current study did not

show a significant difference, the use of strategy instruction and comprehension routines have been shown to cause an increase in students' reading comprehension ability.

Summary and Conclusions

The current study shows that students in the treatment group did not demonstrate a significantly greater increase in comprehension when compared to students in the control group. Although the treatment group received questioning and discussion strategy instruction in addition to whole group instruction, regular small group instruction and independent reading of on-level texts, their results were not significantly different than those of the control group. The majority of students in both of the groups showed an increase in their reading comprehension.

References

- Ahmadi, M. R., Ismail, H. N., & Abdullah, M. K. K. (2013). The importance of metacognitive reading strategy awareness in reading comprehension. *English Language Teaching*, 6(10), 235-244. Retrieved from <http://search.proquest.com/goucher.idm.oclc.org/docview/1459136324?accountid=11164>
- Baltimore County Public Schools (2013). Grade 1 and 2 BCPS rubric constructed responses. Retrieved from https://s3.amazonaws.com/engrade-bcps-myfiles/4200000000544166/2.4.01_Diagnostic_Event_Writing_Rubric.pdf
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. *Journal of Education*, 189(1), 107-122. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=46795585&site=ehost-live>
- Janzen, J. (2003). Developing strategic readers in elementary school. *Reading Psychology*, 24, 25-55. doi:10.1080/02702710390147016
- Keene, E. O., & Zimmermann, S. (2013). Years later, comprehension strategies still at work. *Reading Teacher*, 66(8), 601-606. doi:10.1002/trtr.1167
- Mahdavi, J. N., & Tensfeldt, L. (2013). Untangling reading comprehension strategy instruction: Assisting struggling readers in the primary grades. *Preventing School Failure*, 57(2), 77-92. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1012213&site=ehost-live>; <http://dx.doi.org/10.1080/1045988X.2012.668576>

McCray, A. D., Vaughn, S., & Neal, L. I. (2001). Not all students learn to read by third grade:

Middle school students speak out about their reading disabilities. *The Journal of Special Education*, 35(1), 17-30. Retrieved from

<http://search.proquest.com/goucher.idm.oclc.org/docview/194715091?accountid=11164>

Mills, K. A. (2009). Floating on a sea of talk: Reading comprehension through speaking and listening. *Reading Teacher*, 63(4), 325-329. Retrieved from

<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=46729969&site=ehost-live>

Nation, K., & Angell, P. (2006). Learning to read and learning to comprehend. *London Review of Education*, 4(1), 77-87. doi:10.1080/13603110600574538

National Reading Panel. (2011). *Put reading first: Kindergarten through grade 3 - text comprehension instruction*. http://www.nichd.nih.gov/publications/pubs/prf_k-3/Pages/PRF-teachers-k-3-text.aspx

Palincsar, A. S., & Schutz, K. M. (2011). Reconnecting strategy instruction with its theoretical roots. *Theory into Practice*, 50(2), 85-92. doi:10.1080/00405841.2011.558432

Pilonieta, P. (2010). Instruction of research-based comprehension strategies in basal reading programs. *Reading Psychology*, 31(2), 150-175. doi:10.1080/02702710902754119

- Pilonieta, P., & Medina, A.L. (2009). Reciprocal teaching for the primary grades: We can do it, too! *The Reading Teacher*, 63(2), 120-129. doi:10.1598/RT.63.2.3
- Prado, L., & Plourde, L. A. (2011). Increasing reading comprehension through the explicit teaching of reading strategies: Is there a difference among the genders? *Reading Improvement*, 48(1), 32-43. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=61134383&site=ehost-live>
- Sporer, N., Brunstein, J. C., & Kieschke, U. (2009). Improving students' reading comprehension skills: Effects of strategy instruction and reciprocal teaching. *Learning and Instruction*, 19(3), 272-286. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ830387&site=ehost-live>; <http://dx.doi.org/10.1016/j.learninstruc.2008.05.003>
- Williams, J.A. (2010). Taking on the role of questioner: Revisiting reciprocal teaching. *The Reading Teacher*, 64(4), 278-281. doi:10.1598/RT.64.4.6

Appendix A

Informal Discourse Measure

Purpose: Record instance of each discourse type as it is used throughout a lesson to measure the frequency of teacher-led discourse to student-centered discourse.

Date: _____

Subject: _____

Discourse Type & Purpose	Frequency
Teacher Inform (to provide information to students)	
Teacher Direct (to provide directions to students)	
Teacher Question (to elicit a response from students)	
Student Inform Teacher (to provide information to teacher)	
Student Inform Peers (to provide information to peers)	
Student Question Teacher (to elicit a response from teacher)	
Student Question Peers (to elicit a response from peers)	