

The Effect of the Making Meaning Intervention Program
on Fifth Grade Students' Reading Comprehension

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Table of Contents

List of Tables	i
Abstract	ii
I. Introduction	1
Overview	1
Statement of Problem	1
Hypothesis	3
Operational Definitions	3
II. Review of the Literature	5
Comprehension	6
Related Theories	6
Discussion and the Collaborative Classroom	8
Interventions and Teaching Models	9
Summary	11
III. Methods	13
Design	13
Participants	15
Instrument	15
Procedure	16
IV. Results	17

V. Discussion	20
Implication of Results	20
Theoretical Consequences	21
Threats to Validity	22
Connections to Existing Literature	23
Implications for Further Research	23
Conclusion	24
References	25

List of Tables

1. Growth Means: Making Meaning and Non- Making Meaning Group	18
2. Independent Samples t-Test Analysis of Growth Means: Making Meaning Group vs. Non-Making Meaning Group	18

Abstract

Reading comprehension is a complex, cognitive process and a critical predictor of future school success. The purpose of this study was to determine whether an intervention program with an emphasis on classroom discourse and collaboration would have an effect on reading comprehension as measured by the Scholastic Reading Inventory. Thus, the null hypothesis stating that the Making Meaning Intervention Program would have no effect on the reading comprehension growth of 5th grade students was retained. Over a school year, the experimental group of students received instruction through the Making Meaning Program. The control group received instruction in the reading curriculum developed by the county, with no intervention.

CHAPTER 1

INTRODUCTION

Overview

Some of the most important skills for academic excellence are comprehending and critically analyzing complex and content-rich text. Reading comprehension is a complex cognitive process of making meaning from text (Li et al., 2016). Students often have difficulty with tasks such as identifying information, making inferences, examining arguments, and vetting sources because they often struggle to comprehend print and digital media. The International Literacy Association (2018), The National Assessment of Educational Progress (NAEP) (2017), and Progress in International Learning Study (PRILS) (2016) reports demonstrate that the reading scores of United States students have remained stagnant in the past decade. According to the National Center for Education Statistics (2018), in 2017, 68% of 4th grade students performed at or above the basic achievement level in reading, 37% performed at or above the proficient level, and 9% performed at or above the advanced level, demonstrating most students in the nation are reading at or just above the basic achievement level. The NCES also reports that although 41 states showed no significant change in average reading scores from 2015 to 2017, 9 states showed a decrease in these scores.

Statement of Problem

This study was designed to examine the effects of the Making Meaning intervention program on 5th grade struggling readers' comprehension. Evidence supports that programs that implement classroom discourse through small-group and whole-group discussions result in measurable gains in reading comprehension (VanDeWeghe, 2007). The purpose of this study

was to determine the impact of strategy-based reading instruction in a discussion-based, collaborative classroom setting on student reading comprehension.

The researcher's interest was triggered in the topic of discussion-based intervention programs due to the achievement gaps demonstrated by at-risk and struggling readers in the area of reading comprehension. With the implementation of the Common Core State Standards (CCSS), students in the intermediate grades and above are held to the expectation of being able to read text analytically, examining central ideas, as well as identifying and analyzing text structure and author's craft (Pennell, 2015). Many scholars agree that close reading should include a reader's personal interactions to help aid in comprehension. Research by Nystrand (2006), for example, indicates that classroom discussion can positively affect achievement in reading comprehension through instructional conversation where students and teachers regularly engage in reading, writing, and discussions about literature (as cited in VanDeWeghe, 2007).

In light of the stagnation of reading comprehension growth as demonstrated by the NAEP, the panel for the International Literacy Association (2018) suggests that there is a need for curriculum and instruction which focuses on knowledge building, since knowledge and vocabulary play a vital role in reading comprehension. Therefore, intervention programs are being developed and employed across the country in order to help struggling and at-risk readers. Many of these programs now emphasize the use of various forms of discussion to co-construct knowledge and develop more complex vocabulary. (Li et al., 2016).

Hypothesis

Null: The Making Meaning Intervention Program will have no effect on 5th grade struggling readers' comprehension.

Alternative: The Making Meaning Intervention Program will have an effect on 5th grade struggling readers' comprehension.

The Making Meaning Intervention Program will have a significant positive effect on 5th grade struggling readers' comprehension. The null hypothesis for this study is that the Making Meaning Intervention Program will have no effect on 5th grade struggling readers' comprehension.

Operational Definitions

The dependent variable of the study is reading comprehension. The Scholastic Reading Inventory (SRI) was used to measure students' reading comprehension of literature and expository texts of varying degrees of difficulty. Reading comprehension on the SRI is assessed through Lexile measures. Lexile measures are a numeric representation of an individual's reading ability or a text's readability. This measure is determined by the difficulty of the items to which the student responded and ranges from beginning reader (BR) to 1500L (Salvia & Ysseldyke, 1998).

The independent variables of the study are The Making Meaning Intervention Program and discussion. The Making Meaning Intervention Program focuses on both comprehension and social development. The intervention is shaped by discourse and the strategies explicitly taught include retelling, using schema/making connections, visualizing, wondering/questioning, making

inferences, determining important ideas, understanding text structure, summarizing, and synthesizing (Making Meaning, 2008).

CHAPTER II

A REVIEW OF THE LITERATURE

In an era of standardized testing, and with education policy makers placing an emphasis on academic rigor, a major concern of parents and educators alike is student achievement in the area of reading comprehension. With the Common Core State Standards implemented in many districts, educators must focus on teaching their students to read text analytically. This is achieved by examining text structure and central ideas, often through close reading, in which the reader carefully analyzes what the text is directly stating. Also, educators help students to use their own experiential knowledge to interpret challenging text (Pennell, 2014). Teachers instruct students explicitly to use reading strategies to enhance comprehension skills. For example, according to The Making Meaning Intervention Program (2008), strategies that should be taught to fifth-grade students include understanding text structure, wondering and questioning, visualizing, making inferences, determining main ideas, summarizing, using schema and making connections, and synthesizing information.

The purpose of this study is to investigate the effect of intervention that uses collaboration and discussion on elementary students' reading comprehension. The following research is divided into sections referring to comprehension and its related theories, discussion and the collaborative classroom, and intervention and teaching models with a focus on discussion and collaboration between educators and students.

Comprehension

Comprehension is defined as the ability to actively construct meaning of text and has been described as a critical predictor of future school success (Boardman et al., 2016). When students are able to understand text, both their conceptual and subject-matter knowledge grows. According to Li et. al. (2016), comprehension is considered by many to be a complex cognitive process. The goal for educators is to move students from basic comprehension to high-level comprehension of text. Basic comprehension requires retrieving explicit information from text, whereas high-level comprehension asks readers to move beyond basic comprehension. In order to move beyond this level, readers are expected to use their own knowledge and experiences in order to generate complex inferences and engage with the text so that they can make critical, reasoned judgments.

Theories Related to Reading Comprehension, Collaboration, and Discussion

Rosenblatt's Transactional Theory relies on the interaction that occurs between reader and text. According to Pennell (2014), Rosenblatt describes reading as an efferent act, where the reader reads in order to gain information. Her definition of efferent is reading to "take away" specific pieces of information. However, she also places importance on the lived-through, emotional experiences that occur during reading. Rosenblatt describes the reader and the text as having a reciprocal relationship. In other words, both the reader and the text act upon one another and help to construct meaning. Readers apply their own experiences, which contribute to their own unique responses to text. Whereas some might view reading as an individual act, Rosenblatt describes reading as an intensely social activity. Due to this aesthetic stance, reading to explore the work and oneself, on reading, many studies on group discussion have been rooted in Rosenblatt's Transactional Theory. Through such studies, it has been observed that using

classroom discourse, learning occurs through scaffolding. In other words, students are able to observe the processes, both cognitive and social, of their peers and build upon their own thinking about text thus, students collaboratively construct meaning and enhance one another's comprehension of text (Pantaleo, 2013). Transactional strategy instruction helps connect the reader to prior knowledge and operates as an ongoing community of readers which practices and refines specific reading strategies over time (VanDeWeghe, 2007).

Another theory widely discussed and related to collaboration and discussion used in building comprehension is Vygotsky's Social Learning Theory. According to Boardman et al. (2016), Vygotsky's Social Learning Theory is based on the idea that cognition happens through both individual processing and social interactions. With an emphasis on scaffolding, students are able to build on one another's ideas by listening to and learning from each other. Pennell (2014) states that through open-ended discussions and discourse, students collectively search for meaning. They discuss ideas, experience tension and multiple perspectives, and ask questions along with their peers. Vygotsky suggests that when children discuss and defend their thoughts, the cognitive process can be enhanced, and they will be more likely to later explain, elaborate, or defend their position to others in the future. This helps the learner to synthesize new information and elaborate upon their knowledge in new ways. According to Pennell, "Philosophical inquiry is premised on the Vygotskian notion that 'children will learn to think for themselves if they engage in the social practice of thinking together.'" (p. 253).

The theories of both Rosenblatt and Vygotsky are applied in many present-day classrooms through both teaching strategies and intervention models. With an emphasis on collaboration and discussion, the goal is that students will strengthen their comprehension by

being a part of an ongoing reading community that helps scaffold one another's learning and assist students in comprehending text.

Discussion and the Collaborative Classroom

A collaborative classroom can be defined as a community of learners. Therefore, in a collaborative reading classroom, students and the teacher become a community of readers. In the collaborative classroom environment, students are expected to listen to and talk about literature, whether it be in pairs, small groups, or as a whole class. Students take responsibility for their learning as they work together to develop respectful and caring relationships, as well as create an environment which is conducive to sharing their thinking and encouraging one another (Making Meaning, 2008). As stated earlier, discussion can be used in the classroom to help promote reading comprehension. Two types of discussion-based instruction often employed in a classroom environment are think-alouds and read-alouds.

Ness and Kenny (2016) state that think-alouds are a tool often used in classrooms where the teacher models effective reading comprehension strategies. According to the Common Core State Standards, students are required to compare and contrast, evaluate and analyze, explain their thinking with text evidence, and judge and interpret text. Through think-alouds, teachers are able to model their thinking as they approach a text and demonstrate how to apply these specific and higher-order thinking strategies. In a study conducted by researchers Ortlieb and Norris (2012), kindergarten students who received think-aloud instruction evidenced growth on reading comprehension scores. These students outperformed their peers in the control group. Think-alouds have been shown to help students across genre and text format. This type of instruction has been shown to also have positive effects on struggling readers and English language learners (as cited in Ness & Kenny, 2016).

Another approach used in hopes of strengthening reading comprehension in the collaborative classroom is the read-aloud. Read-alouds promote metacognition, the knowledge of one's own thinking process. According to Varga (2016), "The development of metacognition should be understood as the ability to observe, problematize, communicate and, by extension, have an influence on one's own learning and thought processes through an active choice of reading comprehension strategies" (p. 20). Santoro, Chard, Howard, and Baker (2008) state that research shows effective read-alouds have a positive effect on students' development of comprehension. Effective read-alouds help students through teacher modeling as they read a text. Teachers model how to connect information and events in text-to-life and life-to-text experiences, make predictions, describe new information gained, and summarize text. Beck and McKeown (2001) state that read-alouds provide students experience with decontextualized language and helps them to make sense of ideas beyond the basic level. The goal of read-alouds is to enhance students' language and comprehension abilities through experiences in listening and talking about stories that are read to them (Beck & McKeown, 2001). Santoro et al.'s (2008) research shows that with explicit comprehension instruction used during read-alouds and engaging text discussions, students' comprehension and vocabulary knowledge experiences gains.

Interventions and Teaching Models

There are, in fact, many interventions and teaching models which emphasize collaboration and discussion in order to promote reading comprehension of students. The Making Meaning Program, Quality Talk, and Collaborative Strategic Reading are examples of possible interventions and models that could be implemented in the classroom setting.

Making Meaning is an intervention program with a focus on both comprehension and social development. According to the 2nd Edition of Making Meaning (2008), the program draws on 20 years of research including that of Pearson, Pressley, and Calkins. Through read-aloud experiences, reading comprehension strategies are explicitly taught to help students use the strategies to create a sense of their own reading and thinking. The program emphasizes teaching the whole child and creating a reading community where the basic psychological needs of children are met in order to help them grow intellectually, socially, ethnically, and emotionally, all while promoting reading comprehension. The intervention is shaped by discourse and the strategies explicitly taught include retelling, using schema/making connections, visualizing, wondering/questioning, making inferences, determining important ideas, understanding text structure, summarizing, and synthesizing. According to Making Meaning (2008), “These strategies reflect the most up-to-date research, state standards, and the standards of the National Council of the Teachers of English.”

Another intervention to promote reading comprehension is Quality Talk. A study conducted by Li et al. (2016) compares the effectiveness of three reading interventions, including Quality Talk (QT), Think Before Reading, Think While Reading, Think After Reading (TWA), and TWA/QT Hybrid. Quality Talk focuses on teacher-facilitated discussion approaches to further promote high-level comprehension about, around, and with text. It emphasizes using discussion as a tool to co-construct knowledge and to promote thinking and is strongly rooted in Rosenblatt and Vygotsky’s theories. In Quality Talk, students are encouraged to make personal connections with text and there is a shared control between the teacher and students. Teachers model, scaffold, and prompt students’ reasoning as students engage in discourse about text. The study’s results demonstrated statistically significant growth in reading comprehension scores,

fluency outcomes, and critical-analytic thinking and high-level comprehension of fourth and fifth-grade students. Li et al. (2016) conclude that both the Hybrid and Quality Talk interventions “constitute effective instructional components for promoting critical-analytic thinking and high-level comprehension among fourth- and fifth-grade students” (p. 113).

Collaborative Strategic Reading (CSR) is described by Boardman et al. (2016) as an intervention grounded in cognitive psychology that is a multicomponent reading comprehension instructional model. This model has a focus on explicit instruction, specifically for struggling learners or children with learning disabilities. The model provides students with opportunities to preview text, connect with background knowledge, use self-questioning and self-regulating practices while reading, and summarize. The researchers studied a sample of 60 fourth- and fifth-grade teachers in 14 elementary schools, randomly assigned to either teach CSR or a comparison control group. The results of the study demonstrate that students with learning disabilities who received CSR in the general education classroom two times per week over 14 weeks made significantly greater gains in reading comprehension than their peers in the control group. The average gains from pretest to posttest for all students were positive. According to Boardman et al. (2016), the CSR model appears to benefit students with learning disabilities regarding improving reading comprehension.

Summary

Students’ reading comprehension is an integral part of their academic success. The research demonstrates that students can benefit from teachers who provide explicit instruction in reading comprehension strategies. Rosenblatt (1978) and Vygotsky (1962) stress the importance of social collaboration in regard to learning. Interventions and models, such as read-alouds, think-alouds, Making Meaning, Quality Talk, and Collaborative Strategic Reading, with a focus

on collaboration and discussion, can be implemented to promote metacognition and strengthen reading comprehension skills of struggling learners.

CHAPTER III

METHODS

Design

Quasi-experimental research with a pretest and posttest assessment format was used to collect data. The experiment included an independent and dependent variable. The independent variable was the implementation of the Making Meaning Intervention program. The dependent variable was reading comprehension as measured by Lexile scores from the Scholastic Reading Inventory (SRI).

The Making Meaning Intervention program focuses on building both comprehension and social skills. The intervention is shaped by discourse and the strategies explicitly taught include retelling, using schema/making connections, visualizing, wondering/questioning, making inferences, determining important ideas, understanding text structure, summarizing, and synthesizing. According to *Making Meaning: 2nd Edition* (2008), the strategies implemented by the program reflect up-to-date research, state standards, and the standards of the National Council of the Teachers of English. The intervention is a structured program where students are exposed to read-aloud experiences where the reading comprehension strategies mentioned above are explicitly taught to help students use the strategies to create a sense of their own reading and thinking. The program places a heavy emphasis on discussion as a means to help build comprehension.

Students were divided into two groups with one serving as the control and the other as the experimental group. All students completed a pretest at the beginning of the school year in order to assess reading comprehension as measured by their Lexile level. At the end of the

school year, participants completed a posttest to assess growth in their reading comprehension. Growth of both groups was analyzed and compared.

Participants

The school used in this study is located in a rural part of Northern Harford County, Maryland. The student population consists of 204 students who identify as Caucasian (86%). Other ethnicities represented include 11 students who identify with two or more races (5%) and 14 students who identify as Hispanic/Latino (6%). There is a low mobility rate (10.7%) and the school has an overall attendance rate of 95%. The school received a four out of five-star rating on the 2018-2019 report card (Maryland State Department of Education, 2019).

Participants selected for the study included 41 fifth grade students, ranging from 10 to 11 years in age, from an elementary school in Harford County, Maryland. The students were split into two groups: one that received the independent variable, the Making Meaning Intervention Program, and one that did not.

The sample participants who received intervention included 17 students. This group consisted of 12 males (71%) and 5 females (29%). The participants included 15 students who identified as Caucasian (88%), 1 student who identified as Hispanic/Latino (6%), and 1 student who identified with two or more races (6%). Six of the students in the intervention group received special education services (35%) and had an individualized education plan (IEP) that included reading goals. Participants were selected from an entire grade level of 47 students. The purposive sample was selected due to their low performance in reading language arts and/or due to behavior issues. The beginning of the year (BOY) Lexile scores of the group ranged from

Beginning Reader (BR) to 872. The students who received instruction with the Making Meaning Intervention program stayed in the intervention for the full length of the school year.

The sample of participants from the grade level who did not receive the intervention at any point during the school year included 24 students. The group consisted of 13 males (54%) and 11 females (46%). With regards to race, the participants were 23 students who identified as Caucasian (96%), 1 student who identified as Hispanic/Latino (4%), and 1 student who identified with two or more races (4%). Participants were also selected from a grade level of 47 students. The students were selected because they had not taken part in the Making Meaning Intervention Program at any point during the 2018-2019 school year. The BOY Lexile scores of the group ranged from 811L-1175L.

Instrument

The electronic Scholastic Reading Inventory (SRI), or SRI Interactive, was the instrument used in this study. The SRI is a criterion-referenced test that is a computer-adaptive assessment that can be used as a diagnostic tool to determine student Lexile measures. The scale goes from beginning reader, less than 100L, to 1500L. The SRI interactive measures how well students comprehend both literature and expository texts (Salvia & Ysseldyke, 1998). The SRI was used as both the pretest and posttest to assess student performance and growth. Both sample groups took the test at the beginning and the end of the 2018-2019 school year.

The SRI has been the subject of six validation studies. Salvia and Ysseldyke (1998) completed a norming study with a sample of 512,224 students to an analysis of gender, race, and ethnic differences among fourth- through ninth-grade students. The findings indicated that high correlations with many standardized tests strongly validate the SRI print version. In addition, the

electronic SRI interactive results were compared to the Comprehensive Test of Basic Skills (CTBS), where correlation coefficients ranged from .56 (CTBS) to .83 (SRI).

SRI Interactive, the electronic version, was field tested with 879 third, fourth, fifth, and seventh grade students attending four schools in Florida and North Carolina. Students took both forms of the SRI (print and interactive) for validation of the SRI interactive instrument. The consistency of the two different instruments validates equating and scaling, as they reproduced the same Lexile measures for the same readers (Salvia & Ysseldyke, 1998).

Procedure

Both sample groups completed the BOY SRI pretest in September of 2018 and the EOY SRI posttest in May of 2019. Following the BOY assessment, the groups were formed based on Lexile measures and social factors. Students placed in the intervention group had Lexile scores ranging from BR to 872L, according to the results of the pretest and/or were labeled “at risk” due to social and/or behavioral reasons. Students scoring between 811L-1175L and not labeled as “at risk” were placed in the control group.

Both groups were instructed using the county reading curriculum by their classroom teacher. The intervention group was also instructed using the Making Meaning Intervention program, which was co-taught by the classroom teacher and the school’s literacy coach 30 minutes per day, four times a week.

After the completion of the EOY SRI assessment, average growth of both groups according to Lexile measures provided information on whether there was a significant difference in growth scores between the two sample groups.

CHAPTER IV

RESULTS

The purpose of this study was to determine the impact that participation in the Making Meaning Instructional Program would have on students' reading comprehension growth scores as measured by the Scholastic Reading Inventory and Lexile scores. Thus, an independent samples t-test was conducted. The independent samples t-test analyzed differences in student performance based on student growth and group assignment (Making Meaning compared to Non-Making Meaning). This analysis was conducted with the goal of determining if there was evidence of statistical significance between the two groups. The significance level for this analysis was set at $p < .05$.

As shown in Table 1, group sizes for the Making Meaning and Non-Making Meaning groups were 15 and 23, respectively. The Making Meaning group's beginning of year (BOY) and end of year (EOY) reading comprehension mean scores were 632.3 and 793.0, respectively. Therefore, the Making Meaning group's growth mean was 160.27 with a standard deviation of 122.76. The Non-Making Meaning group's BOY and EOY reading comprehension mean scores were 967.8 and 1097.3, respectively. Therefore, the Non-Making Meaning group's growth mean was 129.5 with a standard deviation of 104.8.

Table 1

Growth Means: Making Meaning and Non-Making Meaning Groups

Group Name	Group Size (N)	Beginning of Year Mean	End of Year Mean	Growth Mean	Growth Mean SD
Making Meaning	15	632.3	793.0	160.3	122.8
Non-Making Meaning	23	967.8	1097.3	129.5	104.8

Table 2 illustrates the results of the independent samples t test comparing the mean growth scores between the Making Meaning and Non-Making Meaning groups.

Table 2:

Independent Samples T-Test Analysis of Growth Means: Making Meaning Group vs. Non-Making Meaning Group

Group Name	N	Growth Mean	SD	t	df	p
Making Meaning	15	160.3	122.8	5.809	36	0.414
Non-Making Meaning	23	129.5	104.8			

As shown in Table 2, an independent samples t-test was conducted to compare the differences between the Making Meaning and Non-Making Meaning groups. The analysis did not reveal evidence of statistically significant differences between the Making Meaning group

(M= 160.3, SD= 122.8); $t(36) = 0.414$, $p > .05$, two-tailed and the Non-Making Meaning group (M= 129.5, SD= 104.8). These results suggest that students enrolled in the Making Meaning program scored higher than the students not enrolled in the program. However, the differences were not shown to be statistically significant. As such, there was a failure to reject the null hypothesis. The results and their implications are discussed in Chapter V.

CHAPTER V

DISCUSSION

The null hypothesis associated with this study noted that the Making Meaning Intervention will not have an impact on 5th grade struggling readers' comprehension. Based on this study's data analysis, there is evidence suggesting that the Making Meaning Intervention Program participants experienced reading comprehension gains at a higher rate than their non-intervention peers. However, these differences were not found to be statistically significant. As such, the null hypothesis was not rejected.

The original hypotheses, that The Making Meaning Intervention Program will have a significant positive effect on 5th grade struggling readers' comprehension was not supported. However, the null hypothesis that the Making Meaning Intervention Program will have no effect on 5th grade struggling readers' comprehension was also rejected. The Making Meaning Intervention program had a positive effect on 5th grade struggling readers' comprehension, though not statistically significant.

Implication of Results

The purpose of this study was to determine whether the Making Meaning Intervention Program has an effect on reading comprehension. As mentioned, the null hypothesis stated that the Making Meaning Intervention Program will have no effect on 5th grade struggling readers' comprehension. There was a failure to reject the null hypothesis, so the difference in comprehension scores between the experimental and control groups did not reveal evidence of statistical significance. Analysis of participants' results from the pretest and posttest indicated that 80% of students in the Making Meaning program had a growth score of at least 100 points.

Of the non-Making Meaning group, 78% had a growth score of at least 100 points. Educators hope that students will grow at least 100 points during a school year, as this demonstrates approximately a year's worth of reading comprehension growth. The overall mean growth score of participants who took part in the Making Meaning Intervention was 160.3, while the overall mean growth score of the Non-Making Meaning group was 129.5.

This study may still provide educators with valuable information in regard to reading comprehension and programs that emphasize discourse. Though there was not a significant difference between the growth mean scores of both groups, the results do suggest that those enrolled in the Making Meaning program achieved more growth than those not enrolled. Ninety-three percent of the Making Meaning group increased their comprehension score throughout the experiment after intervention was applied, while 88% of the non-making meaning group achieved growth. Teachers may want to explore this particular intervention program, or similar programs, which emphasize discussion and explicit instruction of reading comprehension strategies. The results of the study imply that school leaders may want to examine these programs in further depth. They may offer professional development opportunities for their staff on the benefits of discussion with regards to reading comprehension development. Students enrolled in programs such as these will collaborate with one another through discussion and in applying reading strategies which benefit their comprehension development.

Theoretical Consequences

Educational research shows that basic comprehension requires retrieving explicit information from text, whereas high-level comprehension asks readers to move beyond basic comprehension. In order to move beyond this level, readers are expected to use their own knowledge and experiences in order to generate complex inferences and engage with the text so

that they can make critical, reasoned judgments (Li et al., 2016). Research also suggests that through reading programs using classroom discourse, learning occurs through scaffolding. In this way, students are able to observe the processes, both cognitive and social, of their peers and build upon their own thinking about text as well as collaboratively construct meaning and enhance one another's comprehension of text (Pantaleo, 2013). Through discourse, students can enhance the cognitive process, synthesize new information, and expand their knowledge (Pennell, 2014).

Based on this research, the Making Meaning Intervention program was chosen for at-risk readers. The Making Meaning program focuses on both cognitive and social development and aims to improve reading comprehension through classroom discourse. The program focuses on explicitly teaching reading comprehension strategies. Though the results between groups were not statistically significant, the findings do suggest that the program could help improve comprehension scores and support the arguments of Li, Pantaleo, and Pennell.

Threats to Validity

Threats to validity for this study include the core reading curriculum, group size and skill level, and subject attrition. Because this study was conducted over an entire school year, other factors could be considered as contributing to the increase in reading comprehension. Throughout the school year, students in both groups were taught word work and vocabulary, comprehension skills during the normal reading block, and continued to work on phonemic awareness and fluency activities. Improvement in these areas could contribute to improvement in reading comprehension and is a threat to internal validity. Another threat to internal validity is skill level. Participants in Making Meaning began with overall lower Lexile levels than the non-Making Meaning group, leaving more room for growth in comprehension.

A threat to external validity is group size. The Making Meaning group included 15 participants and the non-Making Meaning group included 23. These numbers could be considered a threat to validity because they are small samples. Also, they represent students in just two classes.

Subject attrition is another threat to validity. Some subjects did not complete the program. When the program began, there were 17 students who received intervention and 24 who did not. At the end of the school year, there were 15 students left in the intervention group, and 23 in the group that did not receive the intervention.

Connections to Existing Literature

Existing literature suggests that through discourse, students can enhance the cognitive process, synthesize new information, and expand their knowledge (Pantaleo, 2013; Pennell, 2014; VanDeWeghe, 2007). For this purpose, the Making Meaning Intervention Program was chosen as the independent variable in this study. The intervention is shaped by discourse and the strategies explicitly taught include retelling, using schema/making connections, visualizing, wondering/questioning, making inferences, determining important ideas, understanding text structure, summarizing, and synthesizing (Making Meaning, 2008). During the course of the study, these strategies were taught through a structured curriculum. Students were observed discussing reading strategies during their classroom discussions.

Implications for Future Research

A suggestion for further research includes larger sample size. Further research could be expanded to support a broader sample of participants. Participants in the future could include multiple grade levels. Also, with a larger group sizes, researchers could have students split into

the two different groups, but beginning with the same Lexile score range, in order to provide a more accurate assessment of growth between groups. Studies could seek to determine if the Making Meaning Intervention program is more effective when implemented with students of a certain age or ability level.

Conclusion

While statistical significance was not achieved, based on the results of the study, the Making Meaning Intervention Program did have a positive effect on student reading comprehension. When the program was applied to struggling readers, the majority demonstrated growth in reading comprehension as measured by Lexile scores. The study supports existing research that intervention programs that emphasize discourse, such as the Making Meaning program, may improve student comprehension scores.

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