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The Effects of Graphic Organizers on the Reading Comprehension
of Elementary School Students

By

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A Graduate Field Experience

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Abstract

This paper examines the effects of the use of graphic organizers on the reading comprehension skills of three elementary school students from a large Midwestern city. Reading comprehension is a milestone skill that is essential for students to master early on, in order to be successful across disciplines. Students often struggle to comprehend informational text due to its complexity, using graphic organizers can help students learn the structure of informational text and organize the text in a way that is easier for them to comprehend. Students read about a text, organized the information in the text and wrote a summary of the information that they gathered. The researcher found that the explicit teaching on the use of graphic organizers was effective in improving the overall summary writing skills of the participants.

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Chapter One

Introduction

The purpose of this study was to examine the effect of explicit instruction in the use of graphic organizers to organize ideas in a text, on reading comprehension and writing summarization skills. This study contained three participants from the greater Milwaukee area, Nancy a biracial female, Naomi an African-American female and Gina also an African-American female. Nancy, Naomi and Gina are pseudonyms for the participants that are used to maintain confidentiality of information in this study. Nancy, who was 11 years and one month, had just completed the fifth grade when the intervention began. Naomi had just completed the third grade and was nine years and seven months when the intervention began. Gina was nine years and two months and had just completed the third grade when the intervention began. Each participant in this intervention received instruction that began in July of 2014 and lasted for four weeks. Research supports the fact that there is a need for better foundational reading instruction and explicit instruction in reading comprehension (Williams, 2005). Students at the elementary level must possess solid foundational reading skills in order to enhance their knowledge of literacy into more complex reading and writing skills, which are an indicator of literacy development and can serve as a link to later reading success (Jones, Reutzel & Fargo, 2010). Using writing activities that include but are not limited to summary writing, journal writing, answering questions and note taking, can help to assess and extend student knowledge of content. This case study was formulated based on the idea that writing can therefore be used as a tool for improving reading comprehension and has been argued to enhance learning (Herbert Gillespie & Graham, 2012). Receiving literacy intervention can help improve the overall reading skills of students and can be beneficial for those who do not show improvement on

district-wide literacy programs (Lo, Wang & Haskell, 2009). This chapter will introduce the participants and their educational backgrounds.

Description of Participants

This study was divided into two intervention groups: learning-to-read and reading-to-learn. Nancy was the only participants in the learning-to-read group, and demonstrated both strengths and weaknesses in the areas of reading and writing. Nancy's parents disclosed that Nancy had been diagnosed with attention deficit hyperactivity disorder (ADHD). According to her pre-assessment scores, observations and information provided by her teacher and parent, Nancy demonstrated strengths in the areas of word recognition, decoding and phonological awareness. Nancy demonstrated weaknesses in the areas of vocabulary, reading rate and accuracy, reading comprehension, writing and spelling, grammar, mechanics and writing cohesive paragraphs. Nancy expressed her enjoyment for music, her pet, fashion, nails and bike riding.

Naomi was one of two participants in the learning-to read intervention group, who demonstrated strengths and weaknesses in the areas of reading and writing. Naomi's pre-assessment scores and observations, and information provided by her parent disclosed that Naomi demonstrated strengths in the activation of background knowledge before and during reading, a high level of interest in reading and the ability to ask and answer questions about a text. Naomi's parents also disclosed that she had been diagnosed with dyslexia. Naomi demonstrated weaknesses in the areas of reading sight-word vocabulary, decoding words, spelling, penmanship, motivation, perseverance and reading for pleasure. Naomi had a hard time staying focused during the intervention but would ask to take a break to re-focus. Naomi's

parent also disclosed that she had an interest in dance, school and reading books about various topics both fiction and non-fiction.

Gina, also in the learning-to-to read intervention group, also demonstrated both strengths and weakness in the areas of reading and writing. According to observations, information provided by her teacher and parents, Gina demonstrated strength in her high level of interest in reading. Gina's interests included reading texts about science, drawing and the sea. Gina also demonstrated strengths in the areas of work ethic and asking and answering questions about text. Gina demonstrated weaknesses in the areas of reading study skills, decoding and phonics, reading sight-word vocabulary, reading accuracy, reading comprehension and writing difficulties in penmanship and spelling. Gina shared her enjoyment for drawing, animals and mermaids.

In this intervention I attempted to use writing skills to improve reading comprehension. Providing instruction in the use graphic organizers to organize ideas in a text can promote new ways of analyzing and thinking about text and aid in the improvement of writing summarization skills (Chang, Sung & Chen, 2002). Extending this instruction further to include writing summarization with the use of graphic organizers to improve reading comprehension, helped to facilitate the learning of higher-level literacy skills, as writing about reading can enrich the learning process (Herbert, Gillepsie & Graham, 2012). This intervention linked the Common Core State Standards in both reading and writing at the participants' appropriate grade level to ensure that students were working toward their grade level literacy expectations.

Connection to Common Core State Standards

Due to the fact that all three of these participants had just completed their current grade level, the standards for the grade level that they would be entering were addressed by this

intervention and used to identify areas in which they needed improvement. While Nancy was able to write about a topic, she struggled to write in a cohesive and organized way. In this intervention, Nancy practiced summarizing informational text by first using a graphic organizer to organize the ideas that she gathered from a text, and then organized them properly into writing. According the Common Core State Standards for sixth graders in the area of writing, students are expected to be able to express their ideas clearly through writing in an organized way (Writing Standard W.6.4; Common Core State Standards Initiative, 2012). Practicing the skills of organizing information read in a text and writing a summary based off of ideas collected helped support the development of research skills linked to Writing Standard W.6.8 (Common Core State Standards Initiative, 2012) Nancy also learned to extract the most important information from a text in order to improve her comprehension of the text. This skill addresses Reading Standard RI.6.2, which states that students should be able to determine the main idea of a text, find support for this main idea and provide a summary of this text based on the facts presented (Common Core State Standards Initiative, 2012).

Naomi, one of the students in the learning-to-read group, demonstrated strength in the ability to verbally retell a text and answer questions about what she had read, and also demonstrated a variety of weaknesses in the areas of reading and writing. Gina, also in the learning-to-read intervention group, demonstrated both strengths and weaknesses in the areas of writing and reading. This intervention helped to compile reading and writing standards for fourth graders to promote the improvement in the reading comprehension of informational text. However, due to their low-level literacy skills both Naomi and Gina struggled to read independently and in turn struggled to comprehend text. This intervention was aligned to Reading Standards RI.4.1 and RI.4.2, which pertain to the comprehension of informational text

(Common Core State Standards Initiative, 2012). The use of informational text in this intervention helped familiarize both of these participants with the text structure of a variety of informational texts. Using graphic organizers to organize the information read in a text in order to write a summary and demonstrate comprehension of the text provided repetitive practice for Naomi and Gina to demonstrate mastery in this skill. Writing summaries based on the key ideas in a text, aligned to Writing Standards W.4.2, W.4.4 and W.4.5 (Common Core State Standards Initiative, 2012), skills that students are expected to have mastered by the end of fourth grade.

Nancy, Naomi and Gina were three elementary aged students with different strengths and weaknesses in the areas of reading and writing. Commonly, these participants struggled with the reading comprehension of informational text. This reading and writing intervention focused on helping the participants improve their reading comprehension skills through the explicit instruction on the use of graphing organizers to organize information and write summaries about what they had read in informational text. Research- based instructional practices in both reading and writing were utilized in this intervention in order to provide the participants with knowledge on the use of graphic organizers and improve their reading comprehension. Learning these skills, will help the participants to meet Common Core State Standards for their respective grade levels (Common Core State Standards Initiative, 2012).

Chapter Two will discuss existing research on foundational skills and reading comprehension, the use of concept maps and their effects on reading comprehension and the connection between reading and writing.

Chapter Two

Review of Literature

Reading comprehension skills, like other reading skills, develop over time. In order for students to successfully comprehend what they have read they must be able to recognize the letters and sounds that make up words, the sentences that these words make and the paragraphs that are made from sentences. Comprehending text and reading to learn are strong indicators of academic success (Best, Floyd and McNamara, 2008). However, the focus on reading comprehension has shifted more toward the comprehension of expository text (Akhondi, Malayeri & Samad, 2011).

Children are generally more successful in comprehending narrative text than they are at comprehending expository text. This is because they have more experience with narrative text than they do expository text. Most narrative texts follow a predictable structure. Expository text tends to be more challenging for students to comprehend, due to the lack of instruction in the comprehension of expository text, the text structure of expository text, and the amount of information within the text (DiCecco & Gleason, 2002; Best et al., 2008; Williams, Pollini, Nubla-Kung, Snyder, Garcia, Ordynans, Atkins, 2013).

As children progress in school, it is important for them to learn to comprehend expository text, as there is a focus on this particular type of text in upper elementary grades (usually grades four through 12) (DiCecco & Gleason, 2002). The ideology behind students learning to read and comprehend expository text in earlier grades, is that these students will be better equipped to read and understand content area text and informational texts as they progress in school (Ermis, 2008).

A large part of understanding text is being able to view the text holistically. Graphic organizers have proven to be effective in helping students make connections between concepts within a text and across multiple texts. Graphic organizers are visual representations of information and a way to organize concepts in a text (DiCecco & Gleason, 2002). The use of graphic organizers as a reading comprehension strategy aids in helping students organize information in a text and make connections and relationships between concepts (Chang, Sung, Chen, 2002). By making connections between concepts in a text, students are essentially mapping out information to make it easier to summarize and comprehend what they have read.

Summarizing is a skill that aids in the overall reading comprehension of text. Typically, students who mostly read narrative text, in turn, mostly summarize and write about narrative text. Therefore, as these students possibly lack the ability to comprehend expository text, they can also lack the ability to summarize and write about it. It has been theorized that writing about reading, manifests new ideas and enriches the learning process (Hebert, Gillespie & Graham, 2012). Furtado and Johnson (2010) point out that most of the writing completed at the elementary level is narrative, and that there is not much emphasis on expository or informational writing. Writing about a topic aids in collecting, organizing, extending and assessing the comprehension of students about that particular topic (Herbert et al., 2012). However, learning to comprehend text that is expository, through explicit instruction, summarizing and organizing information properly will provide students with foundational skills to be academically successful in this area (Ermis 2008).

The purpose of this action research project is to determine the effects that the use of graphic organizers have on the reading comprehension of expository text. The hypothesis in this study is that through using graphic organizers to organize informational texts students will be

able to demonstrate an improvement in reading comprehension through writing summaries. The independent variable in this study is the instruction in the use of graphic organizers and writing summarization. The dependent variable in this study is the effect that this instruction has on writing summarization skills and reading comprehension.

This chapter summarizes studies that address questions related to this action research project: How can we assess reading comprehension? How is the comprehension of narrative text different from the comprehension of expository text? How does the use of graphic organizers aid in the reading comprehension? How do graphic organizers help students summarize and write about what they have read? The first section focuses on overall reading comprehension including the difference between comprehending narrative text and comprehending expository text. The next section focuses on concept mapping and summarization of both expository and narrative text. The final section will focus on the link between reading and writing.

Foundational Reading Skills and Reading Comprehension

Research supports that emergent reading skills are of particular importance in that they are an indicator of future academic performance (Lo, Wang & Haskell 2009). Spear-Swerling and Stenberg (1994) proposed that there are a virtually six stages on a “roadmap” of reading acquisition. The researchers also suggested that when learning to read, if a child deters from this roadmap s/he usually receives the instruction of skills missed after their grade level peers have mastered them and miss the reading comprehension instruction at the time it is delivered to peers. Spear-Swerling and Stenberg (2014) propose that if the reading difficulties in specific areas in the road map are pinpointed early students can reap the benefits of early interventions. With early intervention, students can get back on track to becoming fully developed readers

who can apply comprehension strategies to reading, are critical of reading material, and can make comparisons and contrast reading materials within and across disciplines (Spear-Swerling & Stenberg 1994). In the following study, Lo, Wang & Haskell (2009) evaluated the effects of an early reading intervention program on children who were identified as at-risk.

In this study, Lo et al. (2009) investigated the effects of the Scott Foresman Early Reading Intervention (ERI) on the literacy skills of at-risk students. The purpose of this study was to evaluate how effective the ERI program was at improving students' Dynamic Indicators of Basic Early Literacy Skills (DIBELS) benchmark scores. Researchers hypothesized that the ERI program would improve the benchmark scores of the participants on the DIBELS subtests in the areas of Nonsense Word Fluency (NWF) and Phonemic Segmentation Fluency (PSF). The independent variable in this study was the ERI reading intervention that the treatment group received (ERI) and the dependent variable in this study was the growth rates of the phoneme awareness and letter-sound correspondence skills.

The sample consisted of 47 students from four urban K-5 classrooms at one school located in the southeastern region of the United States. Sixteen of the participants were African-American males, 15 were African-American females, eight were Latino-American males, five were Latino-American females, two were Asian males and one of the males was identified as being multiracial. The four classroom teachers who participated in the study were African American.

The researchers used the participants' winter and spring DIBELS benchmark assessment data as a pre-test and a post-test respectively. After students had taken the Winter DIBELS benchmark assessment they were placed in three different groups according to their performance on assessments. The treatment-intensive/strategic group, the group needing the

most intervention, consisted of 17 students. The treatment-benchmark group consisted of five students who were benchmark students but scored below benchmark level on the NWF and PSF subtests on the DIBELS Winter assessment. Another group of 25 students made up the non-treatment benchmark group (the control group). These students were those performing on grade level. A quasi-experimental design was conducted in this study. The treatment groups received the ERI reading program in a staggered format. Three treatment-intensive/strategic students received the intervention for 14 weeks, another three for 10 weeks, and the remaining 11 students in this treatment group and the five treatment-benchmark students received intervention for five weeks. All teachers who participated in the study received a two-day training on the ERI program. All of the participants in the study, including those in the control group, received reading instruction from the district-wide reading program for 90 minutes in their classrooms. The treatment group students received 30 minutes of supplemental reading instruction from the ERI program three days a week. The treatment group received progress monitoring assessments weekly (DIBELS PSF and NWF) while the control group received the same assessments bi-weekly.

The researchers found that the supplemental ERI program had a positive effect on the PWF and PSF benchmark scores of the treatment group. On the winter benchmark assessment the treatment-intensive/strategic group had significantly lower scores on the PSF subtest than the treatment benchmark and non-treatment benchmark groups. However, results did indicate a reduction in the performance gap between the treatment and non-treatment group. Researchers also found that students had higher growth rates of PSF and NWF scores during the intervention than they did before the intervention was implemented. Lo et al. (2009) also noted that students who received intervention for a shorter length of time had higher rates of increase. Overall Lo,

Wang and Haskell's (2009) findings supported the fact that supplemental reading programs that specialize in letter-sound relationship and phoneme awareness are beneficial to at-risk students who do not show reading improvement with district-wide literacy curriculums. These comparisons were made by the improvement in the treatment groups Dynamic Indicators of Basic Early Literacy Skills (DIBELS) benchmark scores and growth rates in the areas of phoneme awareness and letter-sound correspondence skills as indicated by the Nonsense Word Fluency (NWF) and Phonemic Segmentation Fluency (PSF) sub-tests. The findings of the study by Lo et al. (2009) demonstrated that if students' educational needs are met early, they can make significant gains in reading skills regardless of their starting point and can master skills to set the foundation to becoming fully developed readers (Spear-Swerling & Stenberg 1994).

While general foundational and developmental reading skills are not strictly dependent on text genre, research supports that there is a distinction between skills that are needed for students to be success in reading and comprehending different types of texts (Ecalte et al., 2013; DiCecco & Gleason, 2002; Best et al., 2008) These reading skills range from the low level word reading skills that include phonemic awareness, word decoding and word recognition, to higher level comprehension skills such as, making inferences and the use of prior knowledge skills (Ecalte et al., 2013). Reading expository text requires that many of these skills be used simultaneously, producing higher demands on the reader due to the level of complexity presented, when compared to reading narrative texts that tend to follow a more simple structure (Best et al., 2008). Recently, there has been an emphasis on exposing students to expository text much earlier in their school age years. Overall students read more narrative text, and have therefore become familiar with the predictability of narrative text structure. Along with this emphasis on exposing students to expository text needs to come the explicit teaching of the

skills needed to comprehend it (Williams et al., 2013). The following study looks at the differences in the competencies (including reading decoding skills) needed to comprehend narrative and expository texts.

In the next study, Best et al., (2008) investigated the effects of reading decoding skills and world knowledge on the reading comprehension of third graders of narrative and expository texts. Researchers noted multiple hypotheses for this study. The first being that children's comprehension of the narrative text would be greater than their comprehension of expository text and that their comprehension of these types of texts would be closely linked to their decoding skills. Another hypothesis that researchers noted was that the correlation between the comprehension of expository text and world knowledge would be similar to the correlation between decoding skills and the comprehension of expository texts. Researchers also hypothesized that the relationship between the comprehension of narrative texts and world knowledge (prior knowledge) would not be as strong as the relationship between narrative text comprehension and text decoding. The independent variables in this study were the decoding skills and world knowledge of the participants. The dependent variables of this study were the levels of comprehension of narrative and expository texts.

Sixty-one third-grade students from two public schools in a metropolitan area participated in this study. Fifty-two percent of the sample was female and 48% was male. Fifty-seven percent of the children were black or African-American, 28% were White, seven percent were biracial, and three percent were Asian-Pacific Islanders. Participants in the study were recruited by letters sent home outlining information about the study were sent home to their parents through their classrooms. Participants' parents were then required to contact the

researchers to schedule a testing session. Testing sessions occurred on Saturdays during the months of February, March and May.

Researchers administered an assessment battery in which students were required to read two texts silently for five minutes, one expository and one narrative. After the children finished reading the text it was removed and the participants completed a series of tasks in regards to the texts (a free recall task, a cued recall task and 12 multiple choice questions). The participants then completed reading competency tasks. The study took place over the course of one day.

Researchers found that the participants' comprehension scores were higher for narrative texts than they were for expository texts even across different types of assessments. Researchers also concluded that children's comprehension of narrative and expository texts closely related to their decoding skills and world knowledge. In terms of the correlations between world knowledge and decoding skills for both expository and narrative texts, researchers found that all measures of narrative text comprehension with the exception of the free recall measure were closely correlated. For expository text, researchers found that all three measures were significantly correlated with word knowledge. Participants with strong world knowledge also demonstrated elevated decoding skills and vice versa. These findings supported the researchers' hypotheses that narrative texts are often comprehended better than expository texts and that reading competencies (decoding skills and word knowledge) have different effects on the type of texts that are read. Ultimately these findings supported the fact the skills needed to comprehend narrative text are different from the skills needed to comprehend expository text.

While narrative texts tend to follow a structure that is less complex and include a series of events that tie together this is not necessarily true for expository text. Expository text tends to be very different from that of the more familiar narrative text structure, and can be arranged in

many different ways (Best et al., 2008; Ermis 2008). Ermis (2008) noted that five of the most common structural patterns of expository are: (a) description, (b) sequence, (c), comparison, (d) cause and effect and (e) problem and solution. The following study focused on the effectiveness on an intervention aimed to improve reading comprehension using cause and effect expository texts that had a cause and effect structure.

Williams, Hall, Lauer, Stafford, Disisto and deCani (2005) investigated the effects of instructional program that was created to teach second graders how to better comprehend compare-contrast expository text. The purpose of this study was to determine the effectiveness of text structure instruction. The researchers addressed two research questions in this study. The first research question was whether students who receive instruction on text structure can help second-grade students improve their comprehension of compare-contrast expository text. The second research question that researchers aimed to answer was whether or not instruction focused on text structure takes away from the amount of content knowledge that would have been acquired had the text structure instruction not been present. Researchers hypothesized that students would be better able to comprehend compare-contrast expository text through receiving explicit instruction in text structure. The independent variables in this study were the types of instruction that the experimental groups received. The dependent variable in this study was the effect that these types of instruction had on the comprehension of compare-contrast expository texts.

The participants in this study included 128 second-grade students from three different elementary schools from in large metropolitan area. Amongst the 128 participants 57% were Hispanic, 41% were African-American, one percent were Caucasian, and one percent were Asian or other. There were 10 teachers who volunteered to be a part of the study. These

teachers' classroom were assigned to one of the three following groups: text-structure, content only, and the control group. Participants in the study received pre and post-tests. Teachers who instructed both of the instructional groups used the same materials which included an animal encyclopedia, trade books and compare-contrast paragraphs.

The participants in the text structure group received a total of 15 sessions of instruction, occurring two times per week. The first lesson focused on comparing and contrasting two animals that students were familiar with in order to introduce the process to students. The goal of this instruction was to teach students how to categorize animals based on five classes: type of skin covering, how they have offspring, how they get oxygen, and if they are cold or warm blooded. Each lesson focused on anywhere from two to five animals. The teachers introduced eight clue words each lesson that connected to the compare-contrast strategy. Teachers then read about the animals from the encyclopedia and/or the trade books, followed by a student discussion about animals. Next, teachers discussed vocabulary useful for describing the animals and assisted students in creating sentences using this vocabulary. Then students read a paragraph silently to themselves. Upon completion, the teacher then read the same paragraph aloud to the students while they followed along. This allowed for extra reading practice. Students were then asked to look for similarities and differences in the paragraph, label them, circle cue words and construct sentences orally to describe similarities and differences amongst the animals being studied. Students then completed a graphic organizer and visually compared the characteristics of the animals. Lastly, students completed compare-contrast questions to summarize the information that was represented in the graphic organizer and wrote a summary based on the similarities and differences of the animals being compared, and reviewed the lesson materials.

Participants in the content program group received similar instruction as the text structure group but focused more on content, rather than the structure of the text. First, teachers presented instruction to activate prior knowledge about the animals being studied. The teacher then read information about the animals from the encyclopedia or trade books and asked questions. In order to organize the information that they learned about the animals, students then completed an information web. Students were then given the same vocabulary words as the text-structure groups, discussed them and then created sentences using these words. Students in this group also read a compare-contrast paragraph but did not annotate. Students then reviewed their graphic organizers and discussed what they learned. Lastly, students wrote about what they had learned and reviewed the lesson with the teacher. Researchers compared the results of the pre and post-tests of the participants.

Researchers used a variety of post-test measures to evaluate the effectiveness of the intervention. On all research measures that were effected by treatment, the text structure group scored higher than both the content and no instruction groups. Researchers concluded that students who were in the text structure group outperformed those that were in the content program group and the control group. It was also concluded that those who participated in the text structure group were able to transfer knowledge that they learned beyond the instruction that they received, in comparison to those in the content and control groups.

Williams et al. (2005) examined the results of explicitly taught reading comprehension skills in primary grades, using informational text. While Williams et al. (2005) and Williams et al. (2013) both study the effects of interventions on reading comprehension of expository text; the studies focused on two different content areas. Learning to comprehend expository text

across content area, using multiple strategies provides practice for students in more than more area and helps to broaden the reading comprehension skills of students.

Williams et al., (2013) studied the effects of a reading intervention that taught cause and effect integrated in social studies content instruction on reading comprehension. The researchers analyzed conclusions from their previous 2007 study and reformulated and simplified their previous intervention program to make it more developmentally appropriate for second graders. The purposes of this study were to modify their previous study conducted, and to investigate the longevity of the effects of instruction after it had concluded. Researchers hypothesized that those who received explicit instruction in text structure would outperform those that did not (content group and the no instruction group) on measures used to analyze the effectiveness of the intervention. The independent variable was the reading intervention that both experimental groups received. The dependent variable was the effects of the interventions on reading comprehension.

Fifteen teachers volunteered to be a part of this study. These teachers' classrooms were assigned to one of the three experimental groups: a text structure program, a content program: (with no cause and effect instructional component), or a control group. In total there were five content classrooms, six text structure classrooms and three no-instruction classrooms (control groups). The teachers who volunteered to be a part of the study, all received training pertaining to their assigned program group. Three hundred-thirteen students from 14 classrooms initially participated in this study. Out of these 313 participants, only 197 completed the study. Of these 197 participants, 21 of them had special needs. Nine of these students with special needs were in the text structure experimental group; six were in the content experimental group and six in the control group. Students were given a pre-test at the beginning of the study and a regular

post-test as well as a delayed post-test at the conclusion of the study. Each group received the same instruction (text paragraphs, trade books and charts) however, the content group did not receive cause and effect instruction. There were 22 lessons that each lasted 45 minutes and occurred twice a week. The study evaluated the effects of the intervention on students' performance on the post-tests scores of the participants in each of these four areas (strategy cluster, content cluster, sentence combination cluster and comprehension question cluster).

The strategy cluster contained measures that evaluated the effectiveness of the strategies taught to the text structure program group. Results indicated that in this area the text structure group outperformed the content group and the control/non-instruction group. There was no significant difference between the control and content group performance in this area. In the content cluster, results confirmed their prediction that both the content program group and the text structure group would score better on the content cluster measures than the control group. The sentence combination cluster contained three measures of student performance. The text-structure group also outperformed the content group and the control group in this area. The final area of evaluation for this study was the comprehension question cluster, which contained four measures. Results showed that the text-structure group outperformed the content and control group and there was no significant difference in the scores of the content and control group.

Becoming more familiar with the text structure of expository text proves to be beneficial in helping students comprehend expository text (Williams et al., 2013). Aside from being familiar with text structure, students also need to have the ability to understand sentences at a more basic level. Studies suggest that upper-level reading skills are contingent on the lower-level text reading skills (Ecalte et al., 2013). The following study investigated the link between these lower-level reading skills and higher-level reading comprehension skills.

In order to study whether sentence-processing skills are a core component between word recognition and text comprehension Ecalte et al. (2013) conducted two experiments. The first experiment focused on similarity judgment between two sentences and required participants to determine if the two sentences had the same meaning or if they had different meanings. The second experiment focused on the importance of sentence processing skills in reading comprehension. Researchers aimed to find the best predictors of reading comprehension ability. The independent variable in this study was sentence-processing skills. The dependent variable was the effect that these basic reading skills have on reading comprehension skills.

In the first experiment there were 1,000 participants ranging from second to ninth grade. 125 students from each grade participated. Each participant was a native French speaker from East and West France and were all considered typically developing. This particular part of the study focused on semantic similarity, in which participants were required to determine whether two sentences were the same or similar in meaning or whether they had completely different meanings. In all, students were given 48 pairs of sentences (with varying levels of complexity) to which they had to respond.

In experiment two, 88 French speaking, children in third grade from the East and West of France participated, also considered to be normal developing. This group of participants was given a series of different tasks to complete. First the children read an expository text independently and answered twenty yes or no questions to determine text comprehension. The participants then completed the same tasks as the participants in experiment one to measure written sentence comprehension. Students were then evaluated on their oral sentence comprehension. First, they listened to a sentence and were asked to choose a picture that represented what was described in the sentence (they were given four pictures to choose from).

A one-minute timed fluency-reading test was completed to assess the fluency levels of the participants. Researchers assessed the receptive vocabulary level of students using the Peabody Picture Vocabulary Test (Dunn, Theriault-Whalen & Dunn, 1993). The participants also completed a morphosyntactic oddity task in which they were asked to point out which item did not fit with the other two presented. Researchers also tested the participants' verb detection skills and non-verbal intelligence.

From experiment one researchers concluded that as the sentences got more complex the performance level of the participants decreased. In experiment two, researchers concluded that the two best predictors of reading comprehension were written sentence comprehension and vocabulary. The researchers' findings suggested that being able to determine the meaning of isolated words and the meanings of sentences is an indicator of the ability to extract information from text.

Overall, it can be determined that reading comprehension is based on an array of skills. The study conducted by Lo et al. (2009) supports the idea that early intervention can help establish solid reading foundational skills to build upon. Ecalle et al., (2013) extended the idea that there is a connection between low level reading skills and reading comprehension skills concluding that reading is a bottom up process ranging word recognition to high level comprehension skills including making inferences. The connection between these foundational reading skills and the differences in the competencies needed to read and comprehend different genres is apparent in the study conducted by Best et al. (2008). Understanding text, whether it is narrative or expository text, requires the preexisting mastery of foundational reading skills and explicit instruction of comprehension skills. In order to solidify these comprehension skills, students require practice. Williams et al. (2005) and Williams et al. (2013) both demonstrated

the effects of reading interventions aimed at improving reading comprehension in expository text and provided evidence that explicit instruction in the text structure and specific aspects of expository text can improve reading comprehension in this area. These studies support that students can benefit from explicit instruction in the structure and comprehension of expository text, which requires the conjunction of solid foundational reading skills and higher-level reading comprehension skills. Providing students with alternative ways to demonstrate comprehension and organize concepts in a text to nurture the development of those higher-level reading comprehension skills is beneficial but must be practiced in conjunction with explicit instruction (Ecalte et al., 2013). One of the ways students can demonstrate an understanding of text is through the use of graphic organizers to summarize what they have read. The next section will focus on the use of graphic organizers with both narrative and expository text.

Concept Mapping and Reading Comprehension

The use of graphic organizers to organize information read in a text fosters new ways of analyzing and thinking about text (Chang, Sung & Chen, 2002). Much like other reading tools used to promote the improvement of reading skills, using graphic organizers needs to be tailored to meet the varying needs of students. Graphic organizers provide readers with alternative ways to look at and organize text (Chang et al., 2002). Through the use of graphic organizers readers can make immediate connections between ideas in a text and sift through information to determine what is most important (DiCecco & Gleason 2002). Providing students with tools such as graphic organizers to improve their reading comprehension can help them to determine relationships between concepts within the same text and across multiple texts that are related (Ermis 2008). Using information organized in a graphic organizer to then summarize what the text was about, offers students the opportunity to demonstrate an understating of the text in

writing. Summarizing fosters an understating of the text and helps students remember the important information that they read in a text (Baleghizadeh & Babapour 2011). In the following study Chang et al. (2009) evaluated the effects of different mapping strategies on reading comprehension and text summarization skills.

Chang et al. (2002) explored ways to combine different types of concept mapping strategies to create one effective way of organizing information read in a text. The purpose of the study was to compare three concept-mapping strategies for understanding text scaffold fading, map correction and map generation in order to determine which strategy was most effective for improving the comprehension of text and summarization skills. Researchers hypothesized that different concept mapping approaches would improve student reading comprehension in different ways. The independent variables in this study were the interventions that each of the experimental groups received. The dependent variable was level of comprehension of the texts read based on the intervention they received.

This study consisted of 126 fifth-graders from four classrooms in an elementary school in Taipei, Taiwan. Of the 126 participants, 60 were girls and 66 were boys. The study took place over a seven week period. Out of the four classrooms that participated in the study three were selected to be the experimental groups and the fourth classroom served as the control group.

Each experimental group and the control group were given a pre-test to measure the beginning comprehension skills of the participants. To measure the initial summarization skills of the participants, researchers used an article. The three experimental groups each used a different type of concept mapping technique. One of these experimental groups used the map correction approach, while another used the scaffold-fading approach and the other used the

map-generation strategy. The researchers used seven science-based texts, containing seven units that corresponded to each of these seven articles. All three of the experimental groups read the same articles but were asked to complete different concept mapping activities; all of the reading and map construction or map correction was completed on a computer. The participants in the experimental groups first read their article and then completed their assigned concept mapping activity. The control group also read the article but did not complete a concept mapping activity. Post-test and pre-test scores for all three experimental groups and the control group were compared.

The researchers found that the map correction group outperformed the control, scaffold-fading and the map generation group in both comprehension and summarization on the post-test. Researchers concluded that the map correction strategy improved reading comprehension skills better than the scaffolding-fading and map-generation strategies and better than the lack of using a mapping strategy. In terms of summarization, the map correction strategy proved to be more effective than the scaffold fading strategy, the map-generation strategy and the use of no mapping strategy.

Having ideas represented visually can help students organize text. Chang et al. (2002) demonstrated that different types of graphic organizers and their implementation can produce different results. It also demonstrated that it is appropriate to pick the best graphic organizer for the desired results. Different types of graphic organizers and different implementation tactics may be used for different genres. Furtado and Johnson (2010) studied the effects of graphic organizers on reading comprehension and summarization using both expository and narrative texts.

The Furtado and Johnson (2010) study focused on improving the summarization skills of

students. The purpose of this study was to examine the effectiveness of explicit instruction in fiction and non-fictional text structure and the use of graphic organizers to improve the summarization skills. Researchers hypothesized that the explicit teaching of narrative and expository text structure and summarization skills, would improve the summarization skills of participants in both genres. The independent variable in this study was the 3-week reading intervention using both narrative and expository texts that the participants received. The dependent variable was the effect that this intervention had on their reading summarizing scores for both narrative and expository texts.

Four students in the first grade, reading at or above a third grade level during the first trimester of the school year participated in this study in a Southern California public school. All participants were six-year old males and were capable of writing a five-sentence paragraph at the start of the study. All spoke English as their primary language.

Researchers planned research based comprehension strategies and the study itself; however, one teacher delivered the instruction. Students read three pairs of text selections that shared the same topic. Each pair contained one expository and one narrative text. The participants worked with graphic organizers to identify story elements in the narrative text and the main idea and supporting details in the expository text. At the beginning of the first week of the study, the teacher assessed the student's initial prior knowledge using one narrative and one expository text. Students completed a book report for the narrative text and a book outline for the expository text. During the second week of the study, for the purposes of studying the text structure in a narrative text, the teacher introduced a new graphic organizer containing eight items (title, author, setting, characters, problem, important events, outcome and theme/message). The teacher then introduced the topic for the book and used the "think-aloud"

strategy to activate prior knowledge about the topic and did some pre-questioning about the text. Vocabulary from the text was written on the board to help students complete a foursquare vocabulary activity (students and teachers both defined them together). The students then used their eight item graphic organizer to complete to complete a summary about the narrative text in pairs

For the purposes of studying the text structure of the expository text, researchers introduced a graphic organizer that contained six items (one topic line and five supporting detail lines). The teacher introduced the expository text with the same topic as the narrative text using a K-W-L chart on the board. Students then completed a four square to aid in the comprehension of the vocabulary. The teacher modeled skills and questioned students throughout the reading of the text. The students then read the text independently and the teacher modeled how to complete the six item graphic organizer. Students then completed the expository graphic organizer independently using information gained from the expository text to write a summary in pairs.

In the third week and final week of the study, teachers read the text along with the students. Students used the four square strategy to assist students in understanding the vocabulary, ask questions and make predictions about the narrative text. Next, a K-W-L chart was completed before reading the expository text. The students completed both the organizers and the summary paragraph independently.

Researchers found that the prior knowledge score for students after the implementation of these reading comprehension skills rose 22.5%, when comparing the post and pre-test. Researchers also found that the average score for the summarization of a narrative test increased by 59.2% while the summarization skills for the expository summarization rose by 29.9%. Researchers concluded that students in the age group of the participants are capable of

mastering expository text if it is explicitly taught and modifying to accommodate student's learning levels.

Furtado and Johnson (2010) provided evidence that when students are provided with tools for success in all stages of the reading process, they have a better chance of being successful at improving these skills. In terms of improving reading comprehension, providing students the opportunity to narrow their reading focus in text can be beneficial in helping them focus on the most important details in a text. Graphic organizers help to eliminate extra information in a text that can distract poor readers from extracting the most important information (DiCecco & Gleason, 2002). The following study also examined the effectiveness of using graphic organizers to support reading comprehension.

The purpose of Ermis' (2008) study was to determine whether the use of graphic organizers with informational text in second, fourth and fifth grade produced a higher level reading comprehension than traditional reading discussion instruction without graphic organizers. The researcher focused on answering whether the use of graphic organizers in conjunction with informational text in second, fourth and fifth grade produced higher levels of comprehension in reading than the traditional read and discuss model in reading, without the use of graphic organizers. Ermis (2008) hypothesized that the use of graphic organizers can increase elementary grade students' comprehension of informational text. The independent variable in this study was the use of graphic organizers in reading instruction. The dependent variable was the effect that graphic organizers in reading instruction had on comprehension.

Thirty-five elementary students were chosen to participate in this study, which took place at a parochial school a small South Texas town. The second grade class consisted of 10 students (six boys and four girls). Of these 10 second graders, six were White, three were

Hispanic and one was African-American. The fourth grade class consisted of 11 students (seven girls and four boys). Of these 11 fourth graders five were White, four Hispanic, and one African-American. The fifth grade class consisted of fourteen students (five girls and nine boys). Of these fourteen students, eight were white, five Hispanic and one Asian-American. All participants in this study were considered to be from lower-middle income families. The study also involved three teachers who volunteered to participate in the study, all having 10 years or more of teaching experience.

For the purpose of this study, each teacher involved participated in 16 hours of training on using graphic organizers, given by the researcher. Parent permission was obtained for students to participate in the study. Pre-tests and post-tests were administered to both the experimental and the control groups in each of the three grades represented (second, fourth and fifth). Participants in each of the three control groups received traditional comprehension instruction while the experimental groups received reading comprehension instruction that included the use of graphic organizers. In both the second and fifth grade experimental and control groups, participants received instruction across three days for three hours a day, while fourth grade participants received instruction in one day lasting one hour.

The results of pre-tests for the control and experimental group were similar, while the post-tests results showed that the experimental group's scores were significantly higher than the control groups' scores. Results of this study indicated that the use of graphic organizers coupled with reading comprehension instruction of informational text, could raise reading comprehension levels. While results of the study showed that students in the control group did understand what they read and obtained new knowledge from reading the informational text, those in the experimental group learned more information and vocabulary from the

informational text through the use of graphic organizers. Results of this study also showed that those who made the most gains in reading comprehension skills were those who scored the lowest on their pre-test assessments, implicating that using graphic organizers in reading instruction could be even more beneficial in helping students with limited background knowledge. The researcher concluded that the results of this study support the fact that the use of graphic organizers may be useful in improving the comprehension of informational text.

Content area texts have a tendency to be written in ways that make it difficult for readers to make connections between information (DiCecco & Gleason, 2002). Not only are these texts potentially difficult to comprehend for students without disabilities, they are even more difficult for students with a learning disability (LD) to comprehend. These students tend to lack skills necessary to process information, and also struggle to organize written and oral information (DiCecco & Gleason, 2002). The following study aimed to address the concerns about the use of graphic organizers by studying the effects of using graphic organizers with middle school LD students.

DiCecco and Gleason (2002) examined the effects of using graphic organizers to identify relational information in expository text. The purpose of this study was to determine if LD students would gain and retain relational knowledge with the use of graphic organizers (GOs) embedded in reading instruction. The researchers hypothesized that students who used GOs during reading instruction to organize information would retain more information and understand relationships between concepts (relational knowledge) than students who did not use GOs to organize information. The independent variable in this study was the use of graphic organizers in addition to traditional note taking strategies. The dependent variable was the effect that the use of graphic organizers had on the acquisition and retention of relational knowledge.

The sample in this study consisted of 24 students as identified as LD. The students attended two middle schools in a moderately sized city in Oregon. One of the two schools was in a low socioeconomic status (SES) area, the other was in a middle socioeconomic status (SES) area. The participants in the study all were identified as having LD under the 1986 Oregon administration rules (Oregon Department of Education, 1986). The participants were also all enrolled in special education programs, had a current Individualized Education Program (IEP) and had obtained parent permission and also consented to participation in the study. The participants were divided into six different groups. Three of these groups were assigned to the graphic organizer treatment group (GO treatment), the other three were assigned to the no graphic organizer (No GO) or the control group. The GO group contained 12 students; one eighth grader, three seventh graders and eight sixth graders with a mean age of 13.5 years. All of these participants were identified as White; two were girls and 10 were boys. The No GO group also included 12 students; two eighth graders, five seventh graders, and five sixth graders, with a mean age of 13.5 years. Two out of the 12 participants in this group were girls and 10 were boys. One of the participants was African American, the rest were White.

In order to determine the group's equivalence, the researchers used four assessments. For the purposes of measuring word reading skills of the two groups the Word Identification and Word Attack subtests of the Woodcock Johnson Reading Mastery Test-Revised Form H (Woodcock, 1987) were used. In order to determine the content knowledge of students a 20-item multiple-choice pre-test was given. Researchers also collected a writing sample to assess the writing skills and relational knowledge of students to determine the comparability of the two groups. The results of the pre-tests established group comparability. The participants in this study received instruction for four weeks (20 days) during their regular reading instruction time

in the special education resource room. Students were instructed for 40 minutes daily and were randomly assigned to each group. Six instructors participated in this study. Each instructor used a script to instruct in order to ensure consistency. Instructors were rotated between the two groups due to the varying levels of teaching experience. The content used in this study, was taken from a middle school social studies textbook. Researchers divided the two chapters into sections also called units of thought. Each unit of thought contained one theme, concept or idea of focus. In each lesson, students focused on the facts and relationships for the corresponding unit of thought. Based on the pre-test scores for both groups, researchers decided to instruct both groups on summary writing, taught for 20 minutes during lessons two through seven. Both groups also learned the content and relational knowledge in the lessons however, only the GO group used GOs to depict relational knowledge. In each lesson all students received direct teaching of vocabulary, word decoding (for difficult to decode words), summary instruction, text reading instruction and instruction in answering comprehension questions. The instructors spent five to ten minutes teaching vocabulary and words that were difficult to decode before they read them in the text. Students read text aloud for 10 minutes daily. After oral reading, teachers reviewed information in text and explicitly made relationships that were implied by the text in both groups. In the GO group relationships were made explicit verbally and visually, through the use of GOs. In the No GO group relationships were only made explicit verbally. In the GO group, participants received instruction in the use of graphic organizers in terms of finding the relationships for a particular unit of thought. The instructor showed the GO on a projector and stated the relationships between the concepts in the GO. Students filled in empty cells in the graphic organizer from what they recalled from the text. The No GO group received

the same instruction as the GO group with the exception of the use of GOs. Students instead, completed a guided note sheet but did not organize this information visually.

Researchers determined the effects of intervention by using three measures: content knowledge multiple-choice test (pre-test and post-test), eight content knowledge fact quizzes, and two domain knowledge essays. Each content knowledge quiz contained five items that pertained to reading. These measures were used to determine whether the use of GOs helped students retain and recall content knowledge. Before completing the writing essays, students in the GO group were allowed to review their GO before writing, those in the No Go group were allowed to review their note sheet. Students were given 20 minutes to complete the summary and the content knowledge multiple-choice tests.

A two way Condition x Test ANOVA with repeated measures was performed on the pre and post-test scores. Analyses of these scores showed that students in both condition groups scored higher on their post-test than their pre-test. Researchers also conducted a two way Condition x Test ANOVA with repeated measures to compare the group's performance on the content knowledge fact quizzes. The quiz scores of the participants in both groups combined, varied more by the difficulty of the quiz rather than when they were administered. Researchers generally concluded that students wrote more on the post-test summary than the pre-test summary, indicating that students benefited from summary writing instruction in both conditions. In order to analyze the written measures of the participants the researchers conducted a two way Condition x Test ANOVA for the relational knowledge statements on the two essays the participants wrote and the frequency of the relational knowledge statements. The analyses revealed that students in the GO group had more relational knowledge statements in their essays than the students in the No GO group on both essays one and two. These results

indicated that participants who received explicit instruction in addition to the use of graphic organizer recalled more relationships within the texts than students who only received explicit instruction. In terms of the frequency of the relational statements on the two essays students wrote, researchers found that the difference between the frequency of relational knowledge statements was minimal on the pre-test, more significant on essay one (higher frequency count in the GO group) and even greater in essay two (also a higher frequency count in the GO group). Overall, researchers concluded that the results of this study supported the idea that using GOs to support students with LD in recalling relational knowledge.

The study conducted by Chang et al. (2012) demonstrated that the use of graphic organizers to aid in reading comprehension can be effective but is dependent upon the type of graphic organizer being used. Like, Chang et al. (2012), Ermis' (2008) study also supported that the use of differentiated graphic organizers can be effective in improving reading comprehension skills. Both the studies conducted by Ermis (2008) and DiCecco and Gleason (2002) focused on the effectiveness of the use of graphic organizers to improve the reading comprehension and writing skills using expository text. Furtado and Johnson's (2010) study focused on the implementation and use of graphic organizers with both expository and narrative text. The researchers found that whether the use of graphic organizers was coupled with expository or narrative text, that it showed an improvement in the way students organized information and their comprehension of more complex texts. Evidence supports the idea that using graphic organizers to support students with disabilities can prove to be beneficial (DiCecco & Gleason 2002). Through being able to visually represent their thoughts on paper students laid the foundation for being able to enhance their learning through written summarization and in turn demonstrated knowledge through writing. Writing helps students to

be able to compare their thoughts to other written texts and manipulate and organize their thoughts once they are on paper to fit a particular purpose. Writing activities can also require students to make mental connections between ideas and string them together purposefully (Herbert et al., 2012). These studies support the instructional use of graphic organizers to organize ideas in both expository and narrative texts and summarize ideas to demonstrate the comprehension of texts read. The next section focuses on the connection between reading and writing. These connections span from reading and writing development to the connection between reading comprehension and writing summarization.

Reading and Writing Connection

While studies have reported that there are connections between reading and writing, there are also many theories that exist pertaining to how writing pertains to overall learning (Herbert et al., 2012). Writing is often the first indication of a child's interest in written words and for beginning readers writing is the foundation of reading bridging written text and reading (Jones et al., 2010). Through building on these foundational skills reading and writing skills, children can transition from basic reading and writing skills to improving the style and structure of their writing based on what they have read in texts. The following study investigated the link between beginning writing and reading skills. Having a solid foundation to work from in both of these areas can set a solid foundation for producing higher level reading and writing skills.

The study conducted by Ritchey (2007) explored the development of beginning writing skills with a focus on younger children, specifically kindergarteners. The purpose of this study was to determine the relationship between early writing skills and early reading skills. The study examined the following questions: What words could children spell and write in the spring of kindergarten? What are the correlations among reading and writing and abilities in the

spring of kindergarten and which beginning reading, phonological awareness and writing skills predict letter writing ability, sound spelling for children in kindergarten? Ritchey (2007) hypothesized that knowledge of letter names would predict the students' ability to write letters, and that letter writing would be a predictor of more advanced writing skills, including spelling. The independent variable in this study was the literacy program that the students participated in and the dependent variable was the reading and writing skills of the participants.

The sample in this study consisted of 60 kindergarten students enrolled in a full day kindergarten program. The sample was taken from four different classrooms in one school located in the Northeastern region of the United States, 23 of them girls and 37 of them boys. Forty percent of the participants were Caucasian, 15% were African-American, 22% Asian-American, 18% Hispanic, and five percent who were identified as being biracial.

The researcher collected data from late February through May. The study specifically examined the following areas: letter writing, sound spelling, real word spelling, nonsense word spelling, letter name fluency, letter sound fluency, phoneme segmentation fluency and phonological awareness. The reading measures were administered in both February and March, while the writing measures were administered in April and May. The methods used to instruct these kindergarteners beginning reading and writing skills were not based on a standard reading curriculum but included an array of reading texts and instructional methods. These instructional methods included direct instruction of letter-sound correspondence, literacy centers, journal writing, the use of invented spelling, etc.

In the area of writing, the researcher concluded that many of the students who were involved in this study were beginning to internalize the essential building blocks of writing and that this is an indication of later writing success. In terms of letter writing, the participants wrote

a minimum of 13 letters while 11 out of 60 participants were able to write all 26 letters of the alphabet. The results of the sound spelling measure, which tested whether student could write a letter based on the sounds dictated by the researcher, indicated that two out of the 60 participants could not spell any of the sounds and none of the participants could spell all 26 of the sounds. The real word spelling measure showed that only one student was able to spell all nonsense and real words correctly and two students were unable to spell neither nonsense nor real words correctly. The results of these four writing measure were correlated with the reading measures. Overall, there was a moderate to strong correlation between most of the writing and reading measures except for a weak association between the letter writing measure and the two phonological awareness measures. Multiple regression analyses aimed to indicate predictions between reading and writing skills. From these predictions the researcher was able to ultimately conclude that a lack of writing proficiency according the kindergarten standards for writing is an indication of being at risk of a reading and writing disability.

Emergent writing skills are considered to be an indicator of reading acquisition. From early on, children realize that writing can be used as form of communication, as writing is considered the foundation of emergent literacy Jones, Reutzler and Fargo (2010). Jones et al. (2010) evaluated how early writing instruction can impact reading development.

Jones et al. (2010) examined the effects of interactive writing and writing workshop instruction on early reading skills. Researchers aimed to answer the following research question: Does it make a difference which writing instruction method is used in kindergarten, interactive writing or writing workshop, with regard to growth of kindergarten students' early reading skills in phonological awareness, alphabet knowledge, and word reading ability? Researchers hypothesized that the two different types of writing instruction examined would

have different effects on the phonological awareness, alphabet knowledge and word reading ability of the participants. The independent variables in this study were writing instruction in the method of interactive writing and writing workshop. The dependent variable in this study was the effect that these instructional approaches had on phonological awareness, alphabet knowledge and word reading ability.

One hundred fifty one students from two elementary schools in a western district participated in this study. The mean age of the participants was five years and four months. Fifty three percent of the participants were boys and 47% were girls. Twenty seven percent of the participants had been identified as English Language Learners (ELLs). A total of five teachers also participated in this study, all of whom had a bachelor's degree in education with no advanced training in literacy. Teachers in this study participated in training on the implementation of the writing instruction that they were assigned. The teachers and students in this study were randomly assigned to either the interactive writing instructional group or the writing workshop group. There were four groups assigned to each condition.

The study lasted 16 weeks, ranging from August to December. Two groups at each school received interactive writing instruction and two groups received writing workshop instruction. Students receive 30 minutes of writing instruction a day. Reading instruction in all settings was similar. All students received instruction through the district's adopted reading program. During interactive writing lessons, teachers and students selected writing topics. Students and teachers collaboratively wrote about text that was read, and made suggestions on what the teacher should write. Teachers gave students the opportunity to write on paper displayed in the class. Due to the varying levels of the students, students would write according to their ability. The class as a whole would discuss topics related to writing such as letter-sound

correspondences, sight words, irregular spellings, writing mechanics, and conventions. The teacher made corrections to the collaborative text as it was being written. Students would copy what was on the paper being displayed in a variety of ways. The words and sentences were reviewed from text comprehension and construction. In the writing workshop instruction, students wrote independently however, they received feedback and were monitored by the teacher. Teachers taught whole group mini lessons on an array of topics at the beginning of the writing workshop. After the mini lesson students wrote independently. During the writing workshop, teachers met with some students to discuss their writing. Time was allotted for students to share their writing with their peers. Both condition groups wrote about the same topics each week.

The participants were assessed in three areas phonological awareness, alphabet knowledge and word reading. The phonological awareness was measured using the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen & Rashotte, 1999). The results of this test indicated that students made growth in this area over time. In comparing the interactive writing group and the writing workshop group, results showed no significant differences in the scores of these two groups. The alphabet knowledge scores were determined by a subtest on the Observation Survey of Early Literacy Achievement (Clay 2002). Results of this assessment also demonstrated student growth over time and that the differences in scores between the two condition groups was not significant. Researchers used the Test of Word Reading Efficiency (TOWRE; Torgesen, Wagner, & Rashotte, 1999) to measure the word reading skills of the participants. The results of this assessment also indicated that the difference in scores amongst the writing instructional group was not significant.

Researchers compared the effects of two different writing instructional approaches, interactive writing and writing workshop, on the early reading skills of students. Researchers found that throughout the duration of the study students' skills in phonological awareness, alphabet knowledge, and word reading did improve. However the results of the study indicated equivalent growth between the two groups, interactive writing and writing workshop. Researchers concluded that these two writing instructional methods appear to both be effective in promoting the growth of early reading skills. These results imply that not one approach to writing instruction can meet the needs of all students and that writing instruction should be blended and modified.

Having a well-rounded approach to instruction can help to ensure that the needs of students are being met at any given time. Implementing tools to support the developing skills of students and enhance the skills of those who need enrichment can lead to well balanced and effective instruction. Specifically in writing, students usually produce work that is poor in style, lacks structure, but can be improved by the use of graphic aids for structuring ideas (Corden, 2007). The following study looked at how examining texts written by professional authors can enhance the narrative writing of students by drawing attention to the structure and writing style of texts that they read.

In this study Corden (2007) investigated how explicit instruction of literacy devices could improve the quality of children's narrative writing. Corden (2007) aimed to answer the following research question: Can children's writing be enhanced by teachers drawing attention to literary devices used by professional writers or "mentor authors?" The researcher hypothesized that using written texts to guide students' writing will improve how students write about a text by their ability to move away from copying ideas to becoming aware of structure

and writing style and apply knowledge from texts to their own writing. The independent variable in this study was the instruction that students received in the structure of text being read. The dependent variable was the effect that this instruction had on the writing of the students.

The study included 96 students ranging from seven to eleven years old also participated in the study and 18 teachers in the United Kingdom who worked in nine elementary schools as research partners. The schools that were chosen to be a part of the study represented an array of socio-economic statuses and cultures. The schools also ranged in location, including both inner city and semi-rural locations. The teachers who participated were all experienced and attended research development sessions. Throughout the study, teachers also met to discuss the progress of the participants and discuss the data that had been collected.

Daily literacy sessions were conducted for one hour a day for five weeks. Teachers used narrative mentor texts (written by professional authors), as a model for students in terms of appropriate narrative writing. During reading sessions teachers read mentor texts aloud and emphasized the structure and writing style of the text. Shared writing was conducted as a whole group to compose sentences and paragraphs using techniques identified in the mentor text, on an overhead or a whiteboard. Students then worked in small groups to examine the mentor texts more closely. Students were divided into five groups and teachers worked with one teacher-led group each week. At the end of each literacy session, students worked independently to take notes on the literacy devices that the authors used. Weekly writing workshop sessions were also conducted in which students worked on writing independently.

In order to evaluate the students' writing, researchers developed a framework to analyze narrative writing ranging from levels one to four ranging in complexity. Researchers collected

and analyzed data from all of the schools at the end of study. Students' early writing indicated components of levels one and two according to the framework created for evaluating written texts. Later writing samples showed components of levels two and three, indicating that students made progress in both writing structure and style and exceeded national expectations of normal writing process. Researchers concluded that with teacher support through providing models and emphasizing features of mentor texts and group discussions, students began to become more aware of the how texts were structured. Students were also able to transfer specific style and organizational features of mentor texts to their own writing successfully.

Reading and writing are closely related at many stages in both the reading and writing processes. Ritchey (2007) explored the connection between early reading and writing skills. The researcher used analyses of their data to predict that students who lack early writing proficiency are at risk for later reading and writing difficulties. Early academic instruction can have lasting effects on the educational outcomes of students. Students who solidify foundational reading and writing skills early on can build on these skills earlier than those who do not. Having solid basic reading skills promotes a smoother transition to the acquisition of other reading skills, including the use of higher level thinking skills in reading and other subjects (Spear-Swerling & Stenberg, 1994). The study conducted by Corden (2007) demonstrated that students could improve their emergent writing skills by using texts that they read as a model and translate writing patterns that they read into their personal writing. While Corden (2007) focused on the use of text as a model for students, Jones et al. (2010) concentrated on the explicit instructional methods of teaching writing. Jones et al. (2010) concluded that writing instruction needs to encompass a variety of instructional methods in order to meet the varying needs of students. While there are complexities in the connections between reading and writing, as these skills are developed,

these connections should continue to be studied through the examination of early reading and writing skills (Jones et al., 2010). These studies support that reading and writing are closely connected and that reading and writing skills should be strategically taught concurrently.

Conclusion

Reading and writing are intertwined on many levels. Ritchey (2007) demonstrated that the connection between reading and writing begins at the beginning of reading acquisition and writing development. Jones et al. (2010) focused on the effects of two different writing instructional models that common at the kindergarten level and emphasized that early intervention in reading is not sufficient for students to learn to read and write well. Learning how to read and write for some students may prove to be more difficult for some than others. Therefore, Lo et al. (2009) suggested that classroom teachers can be effective at teaching supplemental programs to struggling readers with the appropriate differentiation in reading instruction. In the beginning reading stages of reading, word recognition and reading comprehension are difficult to distinguish from one another (Ecalte et al., 2012).

Best et al. (2008) aimed to determine whether students demonstrated a better understanding of narrative or expository texts based on basic reading skills and prior knowledge. These results indicated that with explicit instruction in reading comprehension, visually representing text and understanding text structure, students can be successful in comprehending not only the more familiar narrative text, but also expository text. Using instruction that focuses on the structure and writing structure of narrative text, can not only improve the comprehension levels of students but also promote improvements in the quality of children's writing. Corden (2007) suggested that closely examining the writing style of an

author and transferring this knowledge into students' writing can be transferred to other text genres as well.

With the recent focus on improving the comprehension skills of students in regards to expository text, students have been exposed to more expository text. However, without the explicit instruction and navigation of expository text structure, students will continue to struggle with this type of text (Williams et al., 2013). However, Williams et al. (2013) and Williams et al. (2005) demonstrated that with proper intervention focused on teaching students to understand expository text students can be successful comprehending expository text. Like previous researchers, Best et al. (2008) determined that the type of text being read has a lot to do with how well students comprehend it. Particularly, the lack of background knowledge about a topic can impede their comprehension of this topic. DiCecco and Gleason (2002) suggested that children must learn how concepts are related to each other and can benefit from a combination of instructional tools. Providing students with tools to help them comprehend what they have read, visually represent, organize thoughts and express their understanding of text through writing, activates different learning processes and enhances the learning process (Herbert et al., 2012).

One tool used to visually represent information is a graphic organizer. Chang et al. (2002) explored the effects of using graphic organizers to summarize reading and found that students demonstrated success in using this tool to organize and summarize their reading. Ermis (2008) also noted success of study participants with the use of graphic organizers to improve reading comprehension. Ultimately, facilitating ways in which students can be successful with texts that they have not had much exposure to (in this case, expository writing) can provide a

solid foundation for promoting success in reading comprehension through text summarization
(Furtado & Johnson, 2010).

Chapter Three

Procedures

This case study focused on improving the reading and response to reading writing skills of elementary school students. Research suggests that reading comprehension is composed of many skills ranging from low level skills such as phonological awareness, decoding and written word recognition to higher-order comprehension thinking skills that relate to making inferences, activating background knowledge and organizing information (Ecalte et al., 2003). The purpose of this case study was to study the effects that the use of graphic organizers had on reading comprehension and the writing summarization skills of students. Students read expository text, annotated the text (coded the text) and used a graphic organizer to organize what they read in a text. With the guidance of the researcher, students identified the main idea and supporting ideas of the text and added a conclusion to their summaries based off of the information that they wrote in their graphic organizers. Mini lessons were taught through modeling with the purpose of introducing and reinforcing both reading and writing skills. During the mini lessons students practiced the skills introduced and reinforced previous skills that were taught. The participants, the procedures and data collection in this study are discussed in this chapter.

Description of Sample Population

This case study took place at a university literacy center in a large Midwestern city. The literacy center staff requested the participation of students in 3rd-5th grades. Parents of the participants in this study completed a survey about their child. All of the parents of the participants indicated that their children had difficulties in reading. The area of focus for this study was the effect that using graphic organizers had on the writing summarization and reading comprehension skills. A total of four students were originally selected to participate in this case

study. However, one student did not complete the study due to lack of attendance. The three remaining participants were females. Of these three females two were African-American and one was biracial. Two of the participants had just completed the third grade and the other had just completed the fifth grade. Each of the participants resided in the city in which the center was located. The participants in this study were divided and instructed in two different groups identified as learning to read and reading to learn.

One of the participants in this study, Naomi (pseudonym), an African-American female who had just completed the third grade at an elementary school was assigned to the reading to learn group based on reading ability. Naomi was nine years and seven months when the intervention began. Naomi's parents disclosed that she had been diagnosed with dyslexia. Although this student had not been receiving special education services, she had been receiving additional reading support throughout the school year. According to Naomi's parents, she has difficulty focusing and is hyperactive. Naomi's parents also noted that, academically, Naomi struggled with sight-word vocabulary, decoding words, spelling, penmanship, motivation, perseverance and reading for pleasure. Naomi was cooperative during interventions but often seemed distracted and took extended periods of time to get settled and begin working. Naomi was often able to get her self back on task but sometimes needed to take a short break from instruction. Naomi's parents disclosed that overall Naomi enjoys school and enjoys reading books about various subjects and that Naomi is highly interested in dance. On her Motivation To Read conversational interview (Malloy et al., 2013) Naomi mentioned that she liked to read non-fiction texts about animals, nature and water, magazines, and things on the internet but also mentioned an interest in fiction texts.

The other African-American female in this study, Gina (pseudonym), had also just completed the third grade and was instructed in the same session as Naomi, based on her reading ability (reading to learn). Gina was also attending an elementary school. Gina was nine years and two months when the intervention began. According to the background information that Gina's parents provided, she enjoyed school and typically read low-level fiction and electronic books. Gina's parents also indicated that she had problems with her vision and wore glasses. The background information also indicated that Gina had difficulties in reading study skills, decoding and phonics, reading sight-word vocabulary, reading accuracy, reading comprehension and writing, and difficulties in penmanship and spelling. Gina's parents also shared that Gina had a strong like for school and took an interest in reading fiction books. Gina self disclosed on her Motivation to Read conversational interview (Malloy et al., 2013) that she enjoyed reading books about science, drawing, animals, mermaids and the sea and identified herself as a fairly good reader. Gina also noted that she liked to use electronic books on the computer to practice her reading skills, and that she also liked to read magazines, newspapers, mail and signs. Gina had not been receiving special education services during the school year. Gina's classroom teacher also provided the Literacy Center with background information. According to Gina's third grade teacher, Gina struggled with analyzing text independently, rhyming and hearing syllables in spoken words, decoding, reading expression, writing, spelling, and reading comprehension. Gina's third grade teacher also disclosed that she had excellent work ethic and worked well in small and whole group settings.

The third participant in this study, received instruction alone based on ability level and was assigned to the reading to learn group. Nancy (pseudonym), a biracial female, had just completed the fifth grade at private school. Nancy was eleven years and one month at the time

that the intervention began. According to the information provided by Nancy's parents, Nancy is diagnosed with attention deficit hyperactivity disorder (ADHD) and for this reason, takes medication daily. Nancy's teacher recommended that she receive reading comprehension instruction during the summer. Nancy's parents also indicated that she specifically had difficulty with decoding and phonics, writing, reading accuracy, expression/rate, reading comprehension, reading for pleasure and study skills. Nancy's parents also disclosed that she is interested in her pet, nails, fashion, music, and bike riding. Nancy did not receive special education services during the school year but had been previously evaluated. Nancy's classroom teacher noted that Nancy struggled with learning new vocabulary, reading comprehension (particularly of non-fiction texts), study skills, writing and spelling, decoding and phonics, sight-word vocabulary, reading expression (rate and accuracy), grammar, mechanics, finding main ideas, and writing cohesive thoughts on paper. Nancy self disclosed on her Motivation to Read conversational interview (Malloy et al., 2013) that overall, she does not like to read. However, Nancy stated that she did enjoy reading texts about slavery, Native Americans, history, and poetry. Nancy mentioned that she liked to read magazines and information online about topics that interested her.

Procedures

The sessions in this case study were divided into two groups of days that included reading and writing instruction in the form of a reading/writing workshop. On the first and third days of the week, students received reading instruction. On the second and fourth days of the week students received writing instruction. Each reading session was followed by a writing session. During each session, the researcher taught a mini lesson that pertained to a skill that was being introduced or reinforced. A reading mini lesson was instructed during reading

sessions and a writing mini lesson was instructed during writing sessions. During the reading sessions for both the reading to learn and learning to read students, the researcher followed along as the students read the text aloud to ensure that they were reading text with accuracy and annotating. The researcher corrected words that students mispronounced. Students were encouraged to pause periodically while they read so that they could add information to their graphic organizer. What students added to the graphic organizer was at their discretion. At the close of the reading sessions students were given time to complete and revise the information that they had written in a graphic organizer. On the writing instructional days (days two and four), students reviewed the text that they read and the graphic organizer that they had completed. Students were given time to add or take away any information before they began writing. Students then used the information that they wrote in the graphic organizer to write a summary about the text they read.

Participants worked with the researcher four days a week for a total of four weeks. All of the three remaining participants were present for each session. The instructional sessions were 55 minutes long. The first two sessions and half of the third session were dedicated to administering the participant's pre-assessments which included the Test of Oral Written Language (TOWL-4) (Hammill & Larsen, 2009) and a summary writing sample.

During the reading portion of the reading/writing workshop (days one and three) students read a text and completed a graphic organizers. Students also met individually with the teacher to discuss the text that they read so that the teacher could assess their progress, provide instructional guidance and assist in setting reading goals. Students also discussed their thinking and strategies they used during independent reading. During the writing portion of the reading/writing workshop (days two and four) students were given time to independently write

a summary of the text that they had read the previous day and discuss their thinking and strategies they used during independent reading and writing. Students were instructed on how to code or annotate text. Students were reminded to use this strategy every time they read. This strategy was displayed on an anchor chart as well as a note card that students kept with their reading materials.

Each mini lesson in which students participated pertained to a skill that needed to be introduced or reviewed. In the first mini lesson (which took place during the second half of the third research session) students were instructed on how to read a newspaper. Instruction focused on the identification of dates, headings, author, pictures, titles, maps and graphs (typical in expository texts). It was after this first mini lesson that students completed the summary writing pre-assessment. The second mini lesson occurred during the first official research session that did not include pre-assessment. During the second mini lesson, students were taught how to annotate or code texts, this skill modeled by the researcher (Richek, Caldwell, Jennings and Lerner, 1996). Richek et al. (1996) suggested that teaching students who have reading difficulties to recognize what they already know, new things, and questions that they have as they read can help them monitor their comprehension. Students used the following three symbols: + (something I already know), ! (new information), and ? (something I have a question about) (Richek et al., 1996). In the third mini lesson the text coding strategy was reviewed and the summarizing strategy (using a graphic organizer) was formally introduced. Students first annotated the text and then used the graphic organizer to identify the main idea and supporting details of the text (See Appendix A). Students then chose a text to read from the texts provided by the researcher based on the reading interests that the participants disclosed through the Motivation to Read conversational interview component (Malloy, Marinak,

Gambrell, Mazzoni, 2013). The Motivation to Read conversational interview and survey developed by Malloy, Marinak, Gambrell, Mazzoni (2013) was designed to create a motivating classroom for language and literacy development. The Motivation to Read conversational interview can be used a tool to discover students' reading interests and aid in choosing texts and activities that align with the interested indicated by the student (Malloy et al., 2013). The next mini lesson focused on the capitalization of letters in writing (based on what the researcher identified as an area of weakness from reviewing the pre-assessment summaries). The next lesson focused on specific reading strategies, including what to do when students come to a word that they do not know such as sounding out the word, using context clues, skipping the word and coming back to it, and using prior knowledge skills to try to figure out the word. Students then read an article and used the annotating strategy, reading skills and summary skills (graphic organizer). In the next lesson students were explicitly taught how to write a paragraph (indenting, appropriate sentence length, introduction and conclusions). In the following mini lesson a new graphic organizer was introduced (See Appendix B) that included a space for a conclusion. Students used their summary skills to complete the graphic organizer that included the conclusion. After the review of the graphic organizer the proceeding lesson focused on sentence variation and included a review of how the author varied sentence beginnings in the text. The focus of the next mini lesson was organizing text and identifying on the most important information in the text, moving from simple annotating to annotating and highlighting text. The next mini lesson focused on students writing information in a sequential order. The next week of mini lessons served as a review and compilation of the skills learned during the case study, participants also completed a post summary writing assessment and a post TOWL-4 assessment.

Data Collection

Pre and posttest assessment data were collected during this case study. At the start of the study students wrote a summary based off of a newspaper article that they read, which served as their writing summary pre assessment. The rubric that would be used to score the pre assessment summary was the same as the rubric used to score the other writing assessments. In total students completed five summaries, two of these summaries were pre and post assessments. Students were evaluated in the areas of organization, voice, word choice, critical thinking/ideas, sentence fluency, and conventions/presentation. Each summary was scored with a rubric with a rating scale ranging from one to five (five being the highest performance and one indicating low performance). At the end of the intervention the students completed a post writing summary and the TOWL-4 posttest.

Summary

The purpose of this case study was to investigate the effects of using graphic organizers on reading comprehension. Students used a graphic organizer to organize the ideas that that they read in a text. They then used this graphic organizer to write a summary of the text to demonstrate an understanding of the text. The case study included one biracial female who had just completed fifth grade and two African-American females who had just completed third grade. The study began with pre-assessments of writing skills that included a writing summary and the TOWL-4. Writing summary skills, text organizational skills, and selected reading skills, were explicitly taught throughout the study. These skills were taught through mini-lessons in each research session. The last week of the case study consisted of a review of the skills taught in previous lessons and the completion of post-assessments. Writing samples were scored using a writing rubric and received a separate score for each area assessed. By the end of

this study it was expected that the summary skills of students had improved in the areas of organization, voice, word choice, critical thinking and ideas, sentence fluency, conventions/presentation and that their writing would demonstrate that they clearly understood the text that they had read. It was also expected that the students had improved in the areas assessed on the TOWL-4 (vocabulary, spelling, punctuation, logical sentences, sentence combining, story composition, contrived writing, spontaneous writing and overall writing skills). The results of this study will be discussed in the following chapter.

Chapter Four

Results

The purpose of this case study was to determine if the explicit instruction on the use of graphic organizers to organize information in an expository text, would improve the writing summarization and reading comprehension skills of elementary school students. This case study included two participants who had just completed the third grade and one who had just completed the fifth grade. Instruction included how to use a graphic organizer to summarize information read in a text and included mini lessons that focused on text structure, reading strategies, text coding, writing mechanics, paragraph organization, and sentence structure. Data in this study were collected through a pre and post normative assessment, a pre and post writing summary and three writing summary assessments to determine what effect the reading and writing intervention had on the summary writing skills of students.

The participants in this study completed a normative assessment and a pre-assessment writing summary that was scored using a rubric. The sequential writing prompts were scored using the same rubric in the areas of organization, voice, word choice, critical thinking/ideas, sentence fluency, conventions/presentation. The case study included 16 sessions in all. During these sessions, observations were recorded. A post-test assessment summary (scored using the same rubric) and posttest normative assessment was administered at the end of the case study in order to compare the progress that the participants made. The Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) normative assessment was used to measure the participants' overall writing growth. This assessment was administered prior to the implementation of the intervention and again after the intervention. The TOWL-4 (Hammill & Larsen, 2009) measured the vocabulary, spelling, punctuation, logical sentence composition,

sentence combining, contextual convention, story composition, contrived writing, spontaneous writing and overall writing skills. The outcomes of the pre-assessment were determined and analyzed before the intervention began and the results of the post-assessment were determined and analyzed after the intervention. In this chapter the observations, the performance of the participants on the writing summaries and the TOWL-4 (Hammill & Larsen, 2009) will be examined.

Observations

During each intervention session, the participants participated in a mini lesson based on a targeted skill. The participants would then read the assigned text and summarize what they read while applying the skills learned in mini lessons. In the reading to learn intervention group, consisting of only Nancy, it was observed that Nancy's attitude about reading had an effect on her writing performance. Nancy expressed her reading preferences explicitly prior to the start of the intervention. Nancy seemed to have a lot that she wanted to share verbally that was unrelated to the content and was encouraged to share those ideas before the intervention sessions began and during transition time. Giving Nancy the opportunity to casually talk decreased the amount of time that she spent talking about things unrelated to the content during instructional time.

Based on the feedback that was received during the one-on-one conference in the reading/writing workshop model, it became evident that Nancy's attitude about reading had not changed much from the beginning to the end of the reading intervention. However, Nancy mentioned that she felt much more comfortable completing assignments and felt that she was better prepared to do so. The time that it took Nancy to complete assignments also decreased, as did the amount of questions she had about tasks that she was required to complete. During the

independent reading time Nancy made verbal comments about the reading to herself such as “Well that’s dumb,” and “I never knew that” which coincided with the annotations that she made in the text. This demonstrated that Nancy was engaging with the text as she was reading it. Nancy did not seem to like going back over her work once it was completed to edit and revise. She would make comments like “I did it write the first time” or “You knew what I meant by that,” which continued throughout the intervention. During one of the reading sessions, Nancy made comments about the text she was reading on Islam. By the end it was apparent that Nancy had gained a greater sense of knowledge about another culture, and recognized that the fight for civil rights continues today. Overall, despite how Nancy said she felt about reading and completing reading assignments, her performance results on writing summaries improved over time.

The reading-to-learn reading intervention group followed the same format as the learning-to-read group. There were two students in the reading to learn group: Naomi and Gina. Both Naomi and Gina asked for directions to be clarified several times throughout the early intervention sessions. On the TOWL-4 (D. D. Hammill & Larsen, 2009) pretest, neither Gina nor Naomi used the entire time to complete the story-writing portion. Both participants seemed to be excited about completing the assessment and were interested in how they performed on each subtest. During the first reading session Gina asked clarifying questions about the text, as both students disclosed that they were unfamiliar with the topic before reading about it. Both Gina and Naomi seemed to be unsure about how to take notes about a text. While Gina took less time to read the article she spent more time writing about what she read the opposite was true for Naomi. Naomi pulled out more of the important information in the text while it appeared that Gina had copied multiple sentences word for word from the text. Both of the

reading to learn participants referred back to the text during sessions, while Gina did so more often. During the summary pre-assessment writing Gina asked if she was supposed to go to the next line if it was a new paragraph. Gina verbally asked questions about the expository text structure itself and was unsure about how the pictures that were apart of the text were related to what was being read. Naomi answered these questions for her.

During sequential mini-lessons both Naomi and Gina were very active and participated frequently. Both participants also referred to stories they had previously read during discussion about the text and made external connections to the text. During one-on-one sessions, Naomi mentioned that she felt more comfortable reading and completing tasks in smaller settings and felt as though she could use strategies that she learned, during the upcoming school year. Naomi also disclosed that she was struggling with getting her ideas on paper and that organizing them before attempting to summarize them helped her express her thoughts in writing. In her early one-on-one sessions, Gina stated that she was struggling to organize the ideas that she read in the text into a summary on paper. Gina progressively became more comfortable with pulling out the important information and stopped copying sentences word for word from the text.

Writing Summary Intervention Results

In order to measure the performance of the participants on the writing summaries a rubric that assessed organization, voice, word choice, critical thing/ideas, sentence fluency and conventions/presentation was used. Each of these areas was quantified on a scale from one to five. A five indicated that the writing met the criteria for this area, a four indicated that the writing was well on the way to meeting the criteria in this area, a three indicated that the writing demonstrated that the writer had the idea of the skill, a two indicated that this is an area that could use improvement and one representing the lowest possible score in the area being

assessed, and the criteria for this area had not been met. (See Appendix C). A description of each of the assessment areas was communicated to the participant. The organization portion of the rubric assessed how well the text was organized, including a clear beginning, middle and end. The voice of the writing was assessed based on how well the participant wrote, how engaging the writing was and how well the writing fit the topic. The area of word choice was assessed by determining how descriptive the writing was and the variety of vocabulary used. The ideas used in the summary were assessed based on the evidence of higher level thinking skills, the synthesis of ideas, the amount of knowledge about the topic that was conveyed, the accuracy of the information presented and the clarity of the writing. The sentence fluency of the summaries was assessed by determining how well the sentences flowed together. Figure 1 represents the writing summary pre and posttest summary scores for Nancy.

Figure 1 shows that Nancy increased her performance on the writing summaries when comparing her pre and posttests in all of the areas examined with the exception of ideas. On the pre-assessment writing summary Nancy scored a two in the areas of conventions, sentence fluency, word choice, organization and voice. Nancy scored best in the area of ideas with a four. The pre-assessment score indicated that Nancy's scores were underdeveloped in the areas of conventions, sentence fluency, word choice, ideas and voice. On the post assessment writing summary, Nancy scored three and a half points on the use of conventions and ideas and a four in the areas of sentence fluency, word choice, organization and voice. Nancy's post assessment scores indicated the teaching of targeted writing skills. Nancy's post assessment scores also demonstrated that the instruction in the area of ideas did not help to increase Nancy's use of appropriate ideas in her writing summary. Nancy's pre and post test assessment scores are presented in Figure 1.

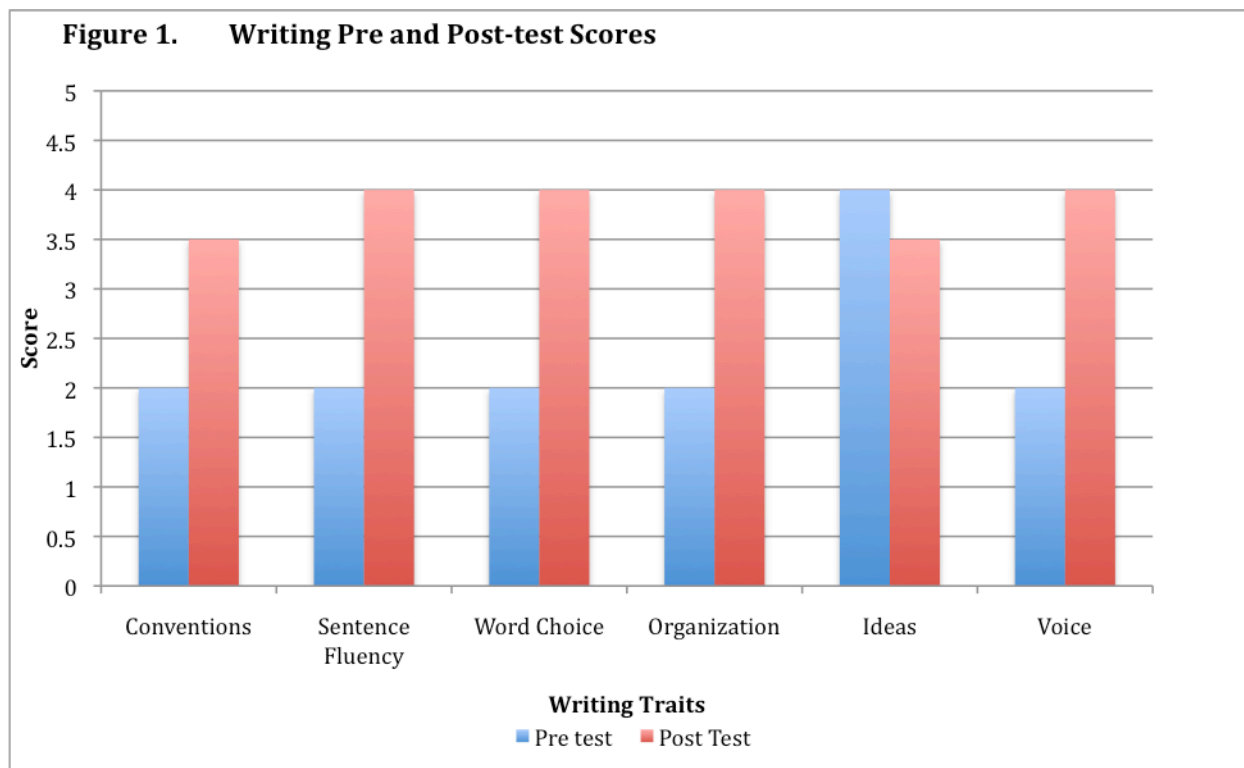


Figure 1. Nancy's Pre- and Post-Test Scores for Conventions, Sentence Fluency, Word Choice, Organization, Ideas, Voice

The same rubric that was used to score the reading to learn writing summaries was used to score the summaries of the learning-to-read intervention group. A description of each of the assessment areas was communicated to the participants. Both the pre and post-test summaries were assessed using the same rubric. Figure 2 represents the pre and post-test summary scores for Naomi. On her pre intervention summary Naomi scores a two in the areas of conventions, word choice, organization, ideas and voice. Naomi scored a one in the area of sentence fluency. On her post-test writing summary, Naomi scored a two in the areas of sentence fluency and word choice, a four in the area of organization, a two and a half in the area of ideas, and a three in the area of voice. Based on the amount of growth demonstrated in the areas of writing organization, sentence fluency and voice Naomi's post-test suggest that the reading and writing intervention was more effective in improving these areas. In the areas of

conventions, word choice, the intervention did not increase performance. In the area of ideas, the intervention only slightly improved performance. Naomi's performance of the pre and posttest writing summaries are presented in Figure 2.

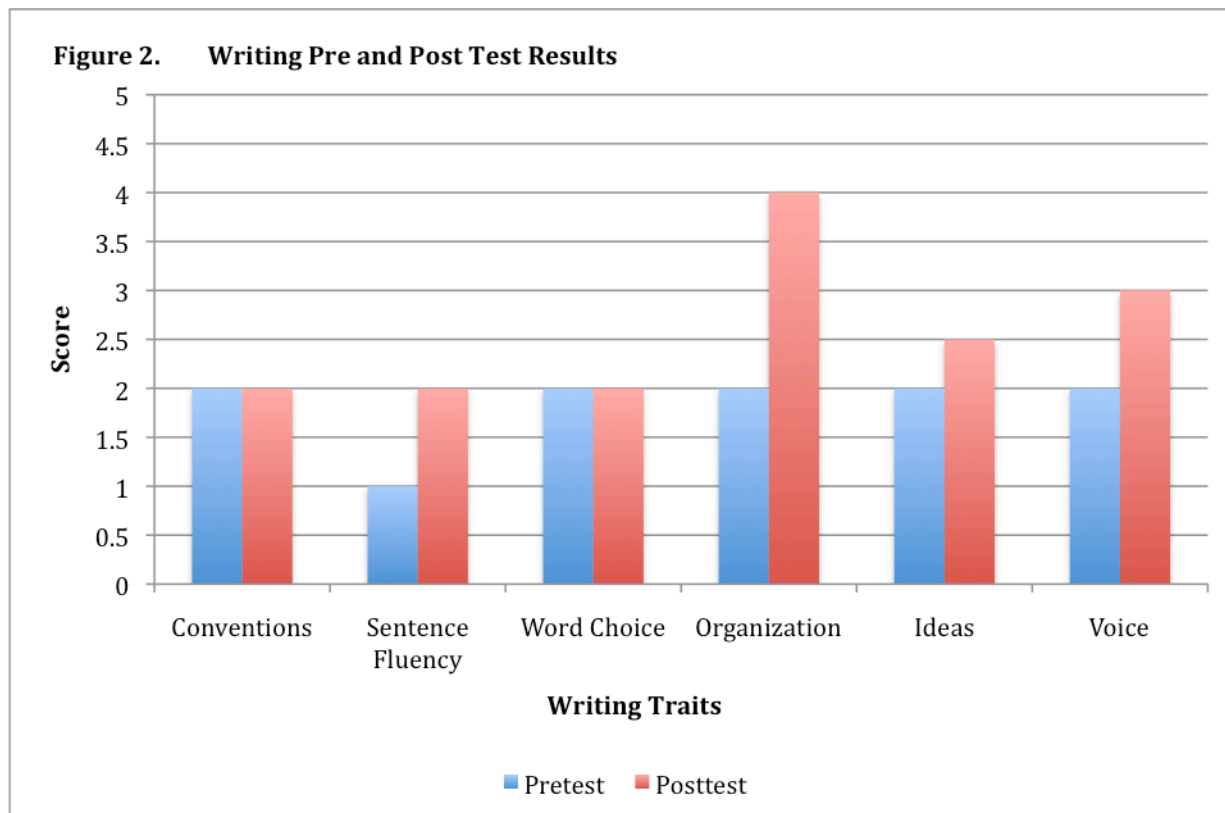


Figure 2. Naomi's Pre- and Post-Test Scores for Conventions, Sentence Fluency, Word Choice, Organization, Ideas, Voice

On Gina's pretest writing summary, she scored a two in the areas of conventions, sentence fluency, organization, and ideas. Gina scored a two and a half in the area of word choice and three in the area of voice. On Gina's posttest writing summary she scored a two in the area of conventions and ideas, a three in the areas of sentence fluency and word choice and four in the areas of organization and voice. Gina's post-test results indicate that the reading and writing intervention improved her performance in the areas of sentence fluency, word choice organization and voice and demonstrated the most improvement in the area of organization. The

posttest results also indicated that the intervention had no effect on Gina's writing ability in the areas of conventions and ideas, in which she showed no improvement. Figure 3 presents Gina's pre and posttest writing summary scores.

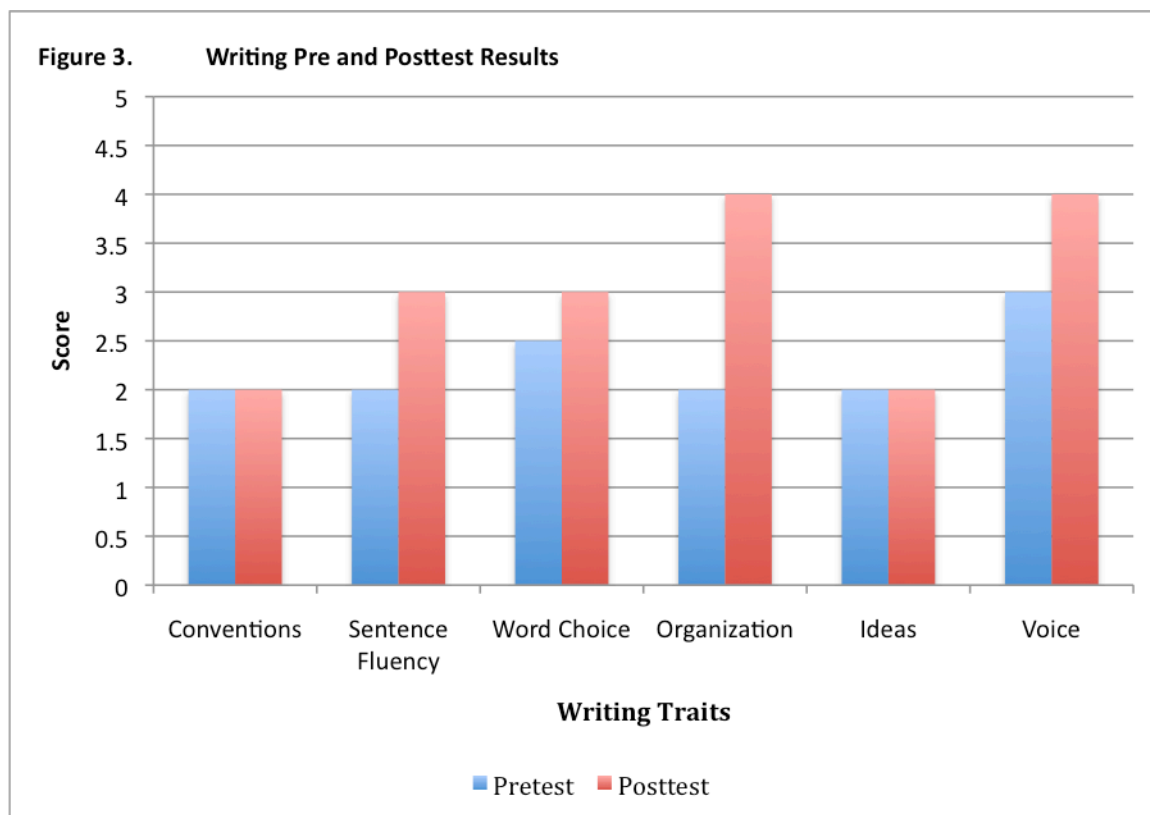


Figure 3. Gina's Pre- and Post-Test Scores for Conventions, Sentence Fluency, Word Choice, Organization, Ideas, Voice

Test of Oral Written Language-4 Results

The Test of Oral Written Language (TOWL-4) (Hammill & Larsen, 2009) was used as both a pre and posttest assessment in this intervention. The TOWL-4 (Hammill & Larsen, 2009) was used to measure performance in the following areas of written language: vocabulary, spelling, punctuation, logical sentences, sentence combining, contextual conventions and story composition to determine overall writing performance. Both the reading to learn and reading to learn intervention participants were assessed using this assessment.

When comparing the pre and posttest raw scores, Nancy, the participant in the reading to learn intervention group, demonstrated improvement in the areas of vocabulary, logical sentences, sentence combining, contextual conventions and story composition. However, Nancy's posttest scores demonstrate a decrease in the areas of spelling and punctuation. Table 1 presents Nancy's raw scores in these areas on the TOWL-4 (Hammill & Larsen, 2009). The raw scores were graphed to represent the differences in the pre and posttest intervention scores. The differences are represented in Figure 4.1.

Table 1

Pre and Post-Assessment Raw Score Results of the Test of Written Oral Language-4

Subtest	Pretest Raw Score	Posttest Raw Score
Vocabulary	3	13
Spelling	9	8
Punctuation	7	5
Logical Sentences	8	10
Sentence Combining	6	9
Contextual Conventions	8	10
Story Composition	10	12

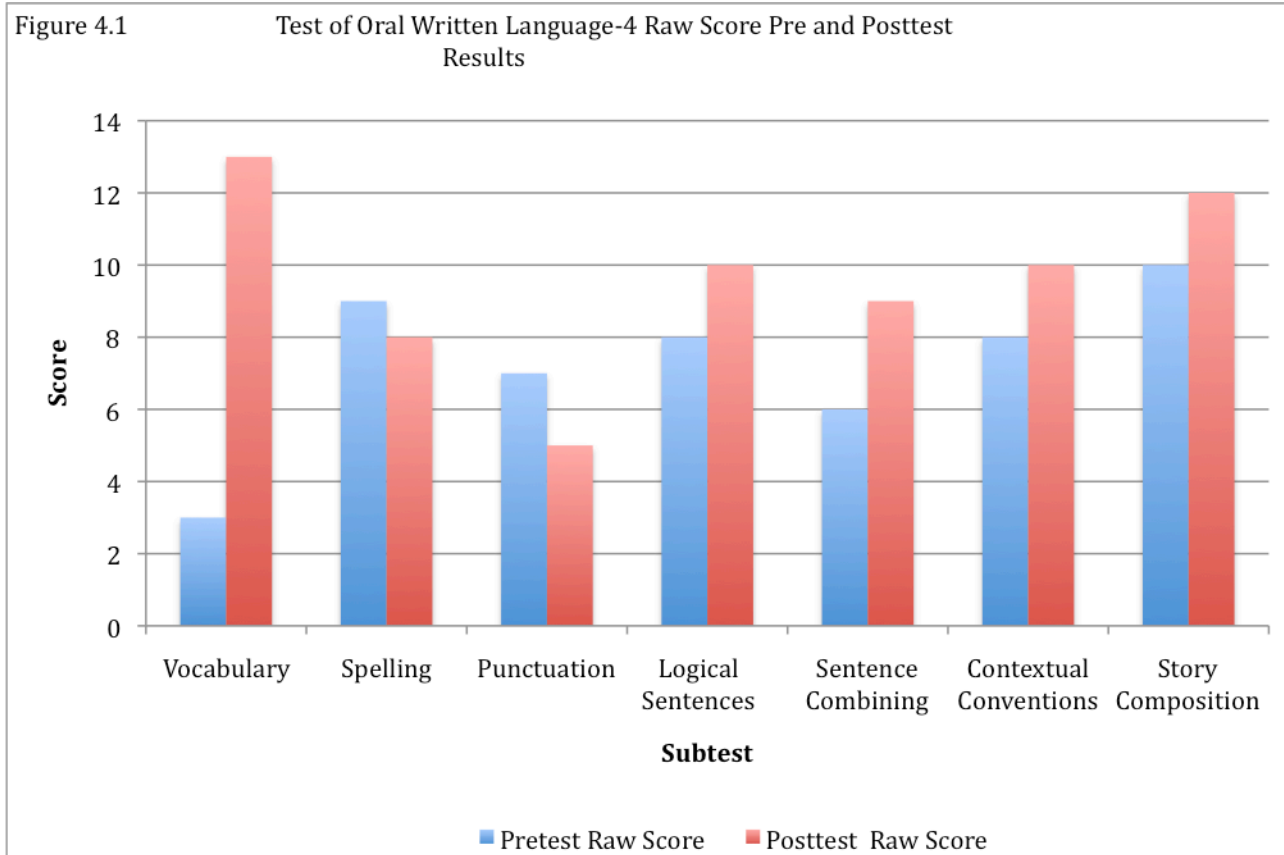


Figure 4.1 Nancy's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) raw score pre and posttest results

The percentile ranks of each of the areas assessed were also compared to determine how well Nancy's scores compared to other students of the same age. Table 2 shows Nancy's pre and posttest percentile ranks.

Table 2

Pre and Post-Assessment Percentile Rank Results of the Test of Written Oral Language-4

Subtest	Pretest Percentile Rank	Posttest Percentile Rank
Vocabulary	1	37
Spelling	16	16
Punctuation	16	16
Logical Sentences	16	37
Sentence Combining	25	50
Contextual Conventions	16	25
Story Composition	75	91

Nancy's percentile rank scores were graphed to show the difference between her pre and posttest intervention percentile rank scores. These differences are shown in Figure 4.2.

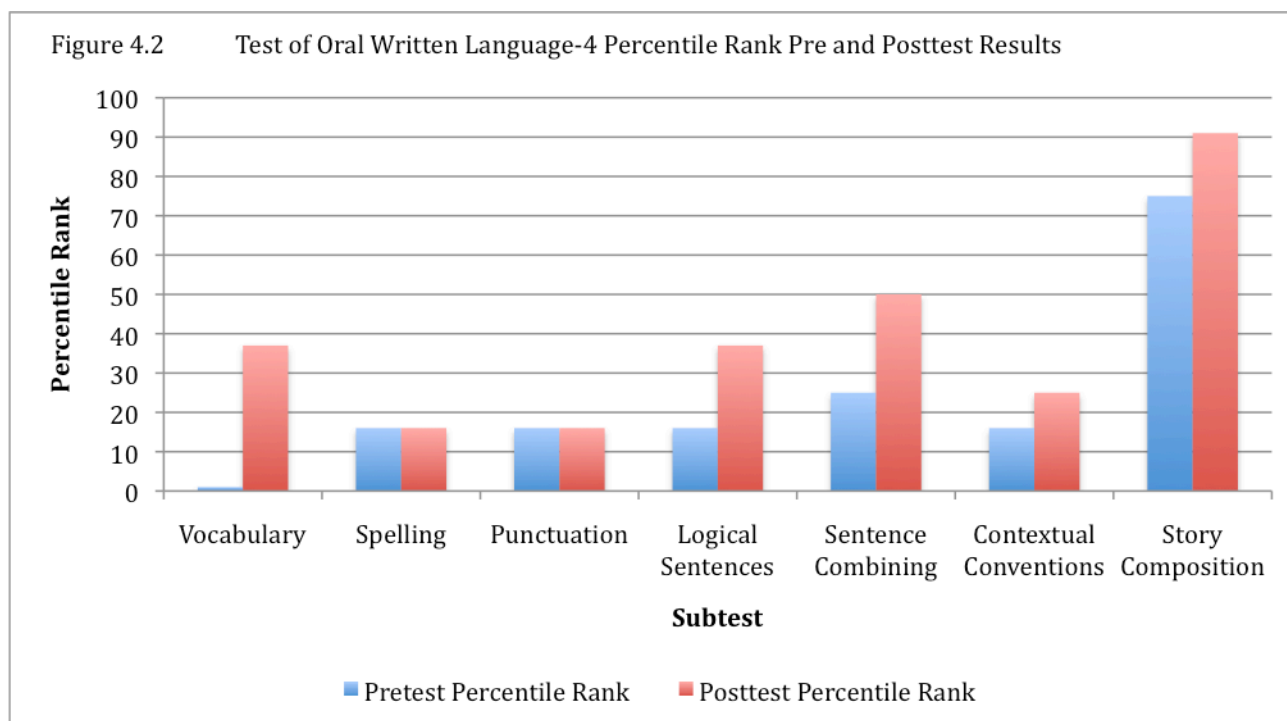


Figure 4.2 Nancy's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009)

percentile rank pre and posttest results

On the Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) pretest in the area of vocabulary, Nancy scored a three and a percentile rank of one, these scores indicated that Nancy struggled in this area and was in need of more intense instruction in this area. On the posttest Nancy scored a 13 and a percentile rank of 37 in this area on the posttest indicating that her performance was average in this area and was in average need of basic instruction in this area. In the area of spelling Nancy scored a nine and a percentile rank of 16, which indicated that her performance was below average in this area and that she was in need of more intense instruction in this area. On her spelling posttest, Nancy scored an eight and a percentile rank of 16, which suggested that her performance in this area was still below average and that she was still in need of intense instruction area. In the area of punctuation, Nancy scored a seven on her pre-test and a percentile rank of 16. These scores indicated that her performance in this area was below average and that she was in need of basic instruction in this area. On her posttest in this area, Nancy scored a five and a percentile rank of 16 indicating that her performance was below average and that she was in need of intense instruction in this area. In the are of logical sentences, Nancy scored an eight and a percentile range of 16 indicating that she was in need of basic instruction in this area and that her skills her below average. Nancy's posttest scores in this are demonstrated that her skills in this area were average with a score of 10 and a percentile rank of 50, indicating that she was still in need of basic instruction in this area. In the area of contextual conventions, Nancy scored a nine and a percentile rank of 16 indicating that her performance in this are was below average and was in need of basic instruction this area. Nancy's post-test scores indicated that her performance in this area was average and was in need of more intense instruction in this area, scoring an eight and a percentile rank of 25. On story composition, the final subtest assessed, Nancy scored a 10 and a

percentile rank of 75 on the pre-test. These scores indicated that her pre intervention performance in this area was average and that she was in need of basic instruction in this area. On her posttest assessment in this area Nancy scored a 12 and a percentile rank of 91 indicating that her skills in this area were above average and was not in need of intervention in this area. The difference in both the raw scores and percentile ranks of Nancy's performance on the pretest and posttest suggests that the reading writing intervention was effective in improving Nancy's writing skills in all of the areas assessed with the exception of spelling and punctuation in which Nancy's performance declined.

Both pre and post intervention scores were also compared for Naomi, one of the two participants in the reading to learn intervention group on the TOWL-4 (Hammill & Larsen, 2009). Naomi's pre and posttest raw test scores indicate an improvement in her performance in the areas of vocabulary, spelling, sentence combining, contextual conventions and story composition. Naomi's posttest raw scores demonstrate no improvement in the area of logical sentences and a decline in performance in the area of punctuation. Naomi's pre and posttest raw scores are shown in Table 3.

Table 3

Pre and Post-Assessment Raw Score Results of the Test of Written Oral Language-4

Subtest	Pretest Raw Score	Posttest Raw Score
Vocabulary	5	6
Spelling	5	7
Punctuation	8	7
Logical Sentences	7	7
Sentence Combining	3	6
Contextual Conventions	9	10
Story Composition	8	9

The raw scores of each of the areas assessed were graphed to show the differences in scores on both the pre and posttest assessments. Figure 5.1 shows these differences.

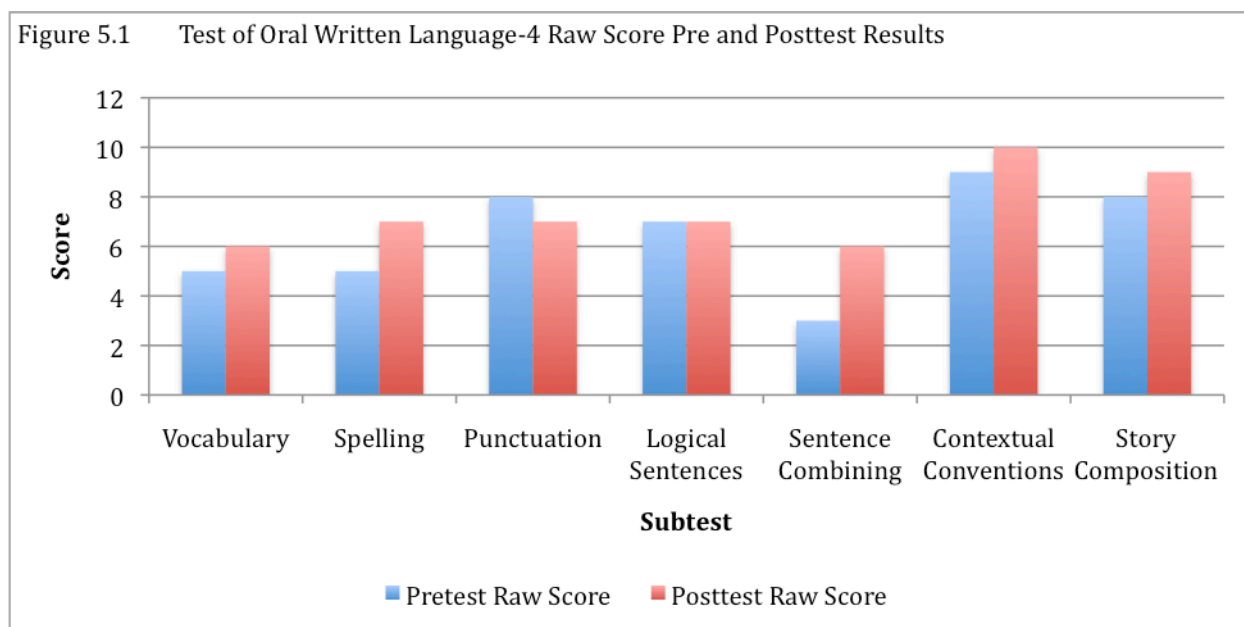


Figure 5.1 Naomi's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) raw score pre and posttest results

The percentile ranks of each of the areas assessed were also compared to determine how well Naomi's scores compared to other students of the same age. Table 4 shows Naomi's pre and posttest percentile ranks.

Table 4

Pre and Post-Assessment Percentile Rank Results of the Test of Written Oral Language-4

Subtest	Pretest Percentile Rank	Posttest Percentile Rank
Vocabulary	5	9
Spelling	16	25
Punctuation	37	50
Logical Sentences	25	25
Sentence Combining	25	50
Contextual Conventions	37	50
Story Composition	63	75

Naomi's percentile rank scores were graphed to show the difference between her pre and posttest intervention percentile rank scores. These differences are shown in Figure 5.2.

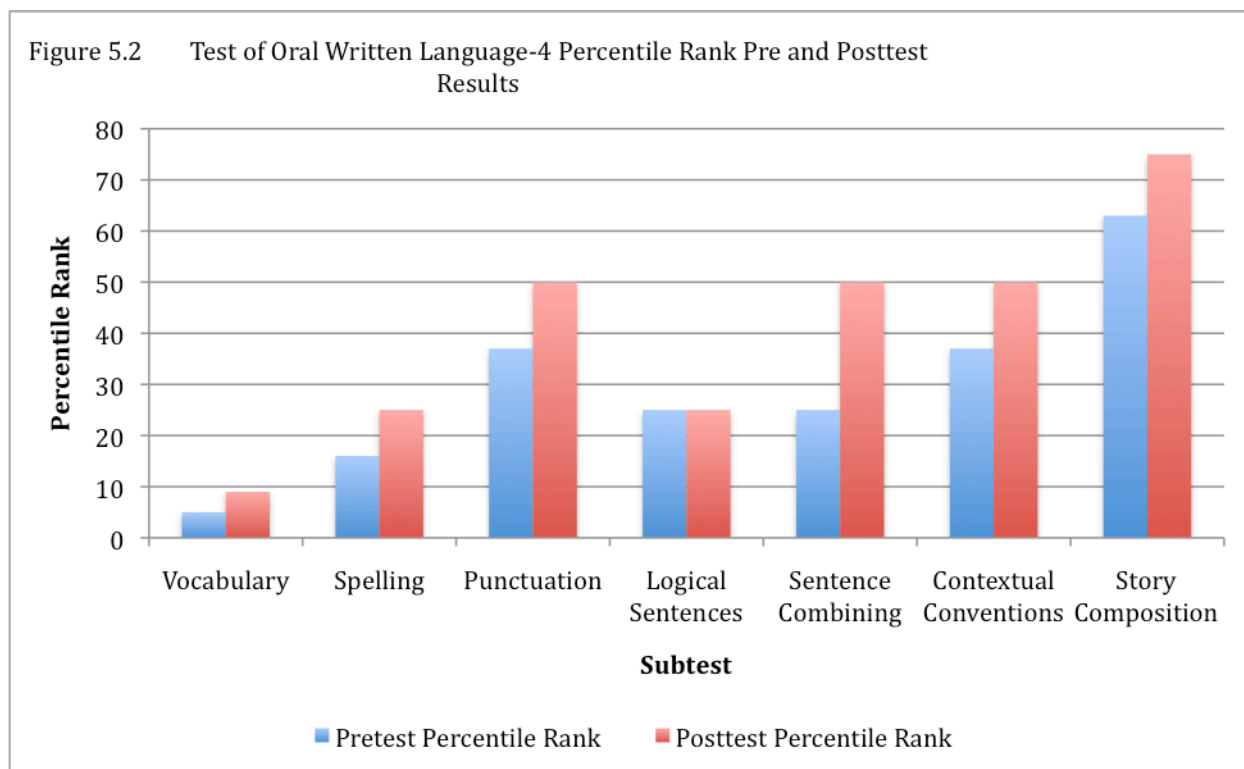


Figure 5.2 Naomi's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) percentile rank pre and posttest results

In the area of vocabulary on the TOWL-4 (Hammill & Larsen, 2009) pretest, Naomi scored a five and a percentile rank of five. These scores indicated that her skills in this area needed improvement and that she was in need of the most intense instruction in this area. In this area on the posttest, Naomi scored a six and a percentile rank of nine, indicating that her scores were below average in this area and she was in need of more intense instruction in this area. In the area of spelling, Naomi scored a five and a percentile rank of five on the pretest. These scores indicated that she was in need of more intense instruction in this area and that her skills were below average. On the pretest in the area of spelling, Naomi scored a five and a percentile

rank of 16, demonstrating that her skills were below average in this area and that she was in need of more intense instruction. In this area, Naomi scored a seven on the posttest and a percentile rank of 25. These scores indicated that Naomi's skills in this area were average and that she was in need of more intense instruction in this area. On the pre-test for third subtest which assessed punctuation, Naomi scored an eight and a percentile rank of 37 which indicated that her skills were average and that she was in of basic instruction in this area. On her posttest in this area Naomi scored a seven and a percentile rank of 50. These scores indicated that Naomi's skills in this area were still average and that she was still in need of basic instruction in this area. Naomi's pretest score of seven and a percentile rank of 25 on the logical sentences subtest, indicated that her performance in this are was average and that she was moderate need of intervention in this area. On the posttest for the logical sentences subtest, Naomi scored a seven and a percentile rank of 25, demonstrating that her skills very still average in this are and that she was in need of moderate intervention in this area. On the sentence combining, Naomi scored a three and a percentile rank of 25. These scores indicated that Naomi skills were average in this area and that she was in moderate need of an intervention. On her posttest in this area, Naomi scored a six and a percentile rank of 50. These scores demonstrated that Naomi's skills in this area were average and that she was in need of average or basic instruction in this area. On the pretest in the area of contextual conventions, Naomi scored a nine and a percentile rank of 37, indicating that her skills were also average in this area and that she was in need of basic instruction. On the posttest in this area, Naomi scored a 10 and a percentile rank of 50 demonstrating that her skills were average and that she was in need of basic instruction in this area. On the final subtest, story composition, Naomi scored an 8 with a percentile rank of 63 on the pretest. These scores suggested that her skills were average in this area as well and that she

was in need of basic instruction in this area. On the posttest in this area, Naomi scored a 9 and a percentile rank of 75, showing a slight improvement in this skill.

Gina, the other participant in the reading to learn group, was also assessed using the TOWL-4 to measure overall written language performance. Gina's pre and posttest raw scores and were compared. Gina's pre and posttest raw test scores indicate an improvement in her performance in the areas of vocabulary, spelling, sentence combining, contextual conventions and story composition. Gina's scores indicated that she made improvements in all of the areas assessed on the subtest with the exception of vocabulary. Gina's scores are presented in Table 5.

Table 5

Pre and Post-Assessment Raw Score Results of the Test of Written Oral Language-4

Subtest	Pretest Raw Score	Posttest Raw Score
Vocabulary	6	6
Spelling	4	7
Punctuation	12	13
Logical Sentences	6	10
Sentence Combining	7	11
Contextual Conventions	9	16
Story Composition	10	11

Gina's raw scores were graphed to show the difference in performance pre and post intervention. These differences are shown in Figure 6.1.

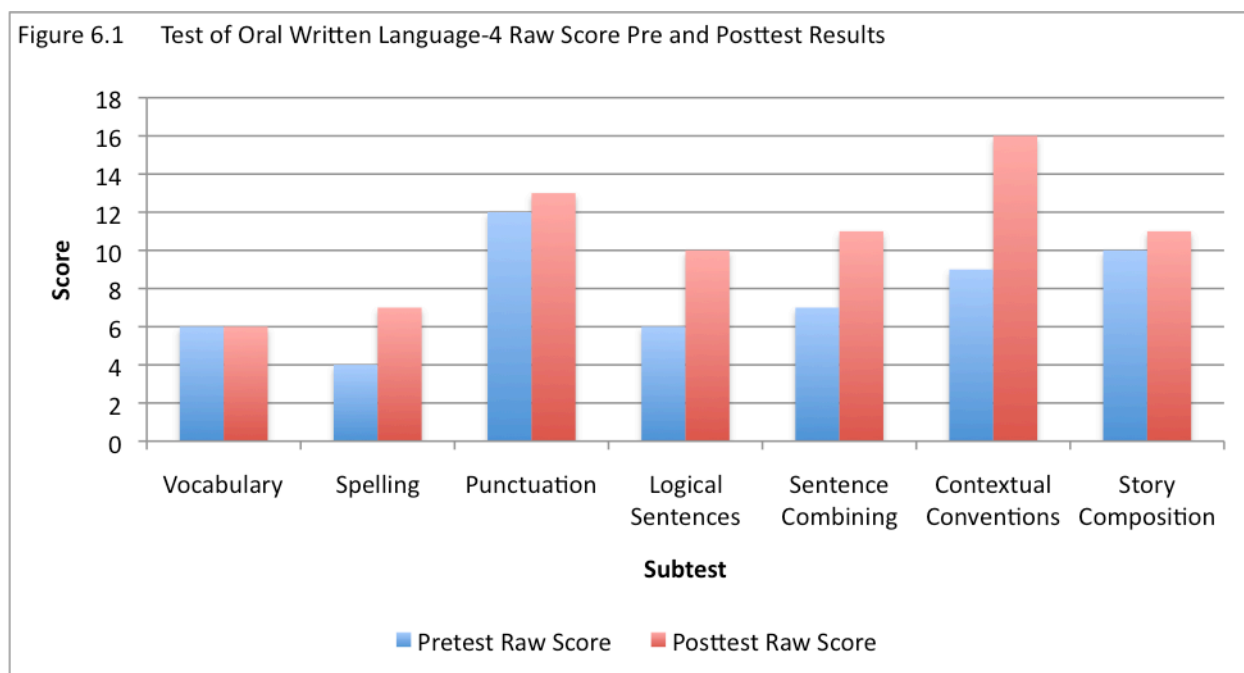


Figure 6.1 Gina's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) raw score pre and posttest results

The percentile ranks of each of the areas assessed were also compared to determine how well Gina's scores compared to other students of the same age. Table 6 shows Gina's pre and posttest percentile ranks.

Table 6

Pre and Post-Assessment Percentile Rank Results of the Test of Written Oral Language-4

Subtest	Pretest Percentile Rank	Posttest Percentile Rank
Vocabulary	9	9
Spelling	9	25
Punctuation	63	84
Logical Sentences	16	63
Sentence Combining	63	91
Contextual Conventions	37	84

Gina's percentile ranks were graphed to show the difference in performance pre and post intervention. These differences are shown in Figure 6.2.

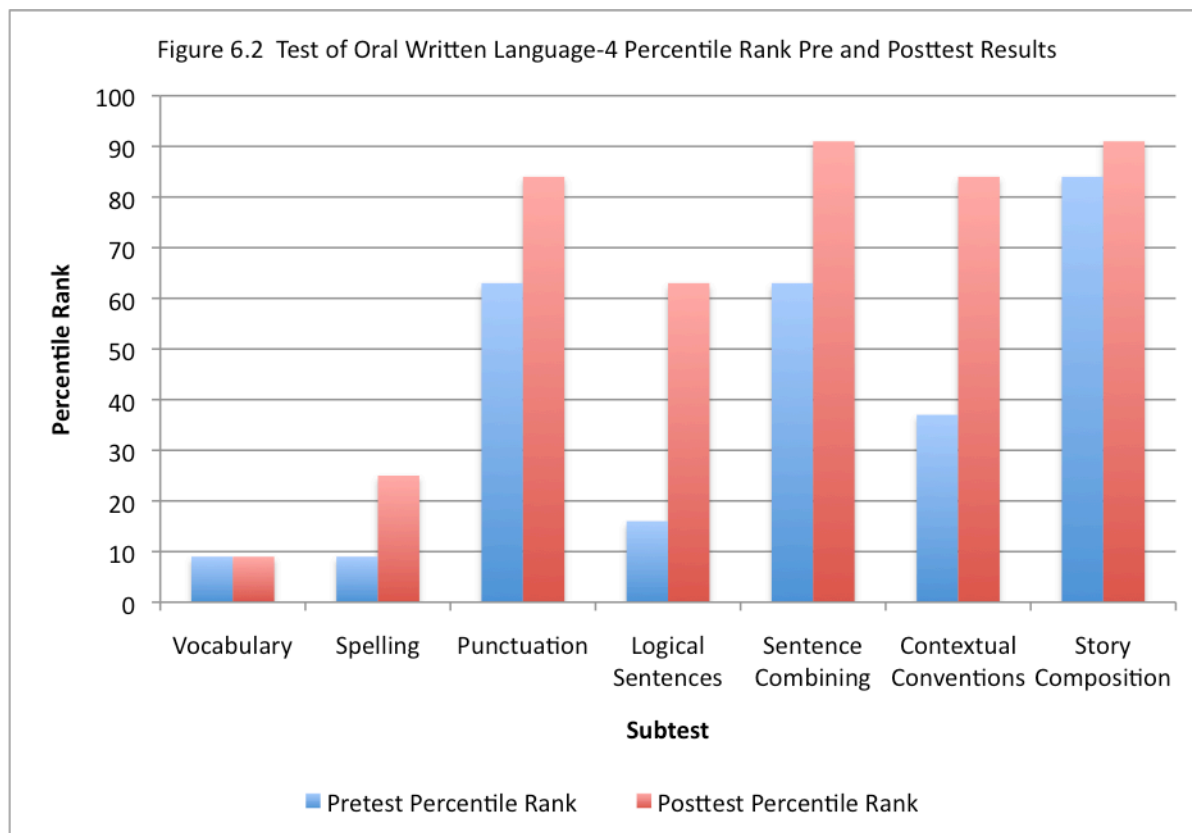


Figure 6.2 Gina's Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen, 2009) percentile rank pre and posttest results

On the pretest of the TOWL-4 (Hammill & Larsen, 2009) Gina was assessed in five subtest areas. On the first area of the subtest, vocabulary, Gina scored a six and a percentile rank of nine, which indicated that her skills in this area were below average in this area and that she was in need of more intense instruction in this area. Gina's posttest results in this area indicated that she made no improvement in this area, scoring a six and a percentile rank of nine. On the spelling subtest, Gina scored a four and a percentile rank of nine indicating that she was her

skills were average in this area and that she was in need of more intense instruction in this area. On the spelling posttest Gina scored a seven and a percentile rank of 25 indicating that she still needed more intensive instruction in this area. On the punctuation subtest Gina scored a 12 and a percentile rank of 63. These scores indicated that Gina's skills were average and that was in need of basic instruction in this area. On the posttest Gina scored a 13 and a percentile rank of 84 in this area indicating that her skills in this were above average in this area and no instruction was need. On the logical sentences subtest, Gina scored a six and a percentile rank of 16 on the pretest. These scores indicated that Gina was in need of more intense instruction and that her skills were average in this area. On the posttest in this area, Gina scored a 10 and a percentile rank of 63, indicating that her skills in this area were average and that she need basic instruction in this area. On the pretest for the sentence combining subtest, Gina scored a seven and a percentile rank of 63. These scores indicated that her skills were average and that she was in need of basic instruction in this area. On the sentence combining posttest, Gina scored an 11 with a percentile rank of 97, demonstrating a big improvement and that her skills were above average in this area and no need for instruction in this area. In the area of contextual conventions, Gina scored a nine, which indicated that her skills were average and that she was in need of basic instruction in this area. On the contextual conventions posttest, Gina scored a 16 with a percentile rank of 84 indicating that her skills were superior in this area and no instruction in this area was required. On the final subtest, story composition, Gina scored a 10 on the pretest with a percentile rank of 84 and a 11 with a percentile rank of 91 on the posttest. Her scores on the pretest indicated that her performance in this are was average and that she was in need of basic instruction in this area. Gina's scores on the posttest indicated that her skills were above average and that no instruction in this area was required.

Conclusion

To determine the effectiveness of the reading/writing workshop intervention on the reading comprehension and writing summarization skills of the participants, pre and posttest results of writing summary and the TOWL-4 (Hammill & Larsen, 2009) were compared. Overall, the success of the intervention varied based on the participant. For Nancy, the participant in the reading to learn intervention group, the intervention was effective in improving her skills in the areas of conventions, sentence fluency, word choice, organization and voice on the posttest writing summary. The intervention was also successful at improving Nancy's writing skills in the areas of vocabulary, logical sentences, sentence combining, contextual conventions and story compositions. Naomi, one of the two participants in the learning-to-read intervention group, demonstrated improvements in the areas of sentence fluency, organization, ideas and voice on the posttest writing summary. On the TOWL-4 (Hammill & Larsen, 2009) the reading and writing workshop intervention was effective at improving Naomi's skills in the areas of vocabulary, spelling, sentence combining, contextual conventions and story composition. Gina, also in the learning-to-read intervention group, demonstrated improvement in the areas of in the areas of sentence fluency, word choice, organization and voice. On the TOWL-4 (Hammill & Larsen, 2009), Gina demonstrated improvement in the areas of spelling, logical sentences, punctuation, sentence combining, contextual conventions and story composition. For Gina the reading/writing workshop intervention was effective in improving her performance on of the subtests except for vocabulary. While the results of the reading/writing workshop intervention were discussed in this chapter, the next chapter will further discuss these results in depth, drawing connections to other studies, discussing the studies implications and limitations and educational suggestions.

Chapter Five

Conclusions

The purpose of this action research study was to determine if the explicit instruction in the use of graphic organizers could improve reading comprehension and writing summarization skills. The research focused on three participants-- Nancy, Naomi and Gina. At the time of the study, Nancy was an 11-year-old student, who had just completed the fifth grade and showed difficulties in the areas of reading and writing; Naomi was an eight-year-old, who had just completed the third grade, had been diagnosed with dyslexia and had been received supplemental support in the areas of reading and writing; and Gina was also an eight-year old who had also just completed the third grade and had been having difficulties in the area of reading and writing.

This particular intervention was designed after a review of existing literature in the areas of foundational skills and reading comprehension, concept maps and comprehension, and the connection between reading and writing. Previous research suggests that students have a difficult time comprehending expository literature due to its complexity and their unfamiliarity with its text structure (Best, Floyd & McNamara, 2008). Graphic organizers are one tool that can be used to help students understand the structure of a text, aid in the comprehension of a text, and help them make connections to ideas within the same text and across multiple texts (Chang, Sung & Chen, 2002).

As part of this intervention, the researcher instructed students on the usage of graphic organizers to summarize information read in a text in order to improve the comprehension of the text. Formal and informal assessment data were collected before, during and after the

intervention. This chapter will further discuss and analyze the results of the intervention, its limitations and strengths as well as educational recommendations for the participants.

Writing Summary Intervention Results

This study focused on improving the reading comprehension of the participants through the use of graphic organizers. To determine the effectiveness of this intervention, data were collected before, during and after the intervention was implemented. Pre, post and mid-intervention writing summary data were collected and analyzed as well as a pre and post formative assessments. Research suggests that expository texts prove to be challenging for students to comprehend and stresses the importance of explicit instruction in this area (Ermi, 2008).

Nancy, in the reading-to-learn intervention group, demonstrated improvement from her pre-intervention writing summary to her post-intervention writing summary in the areas of conventions, sentence fluency, word choice, organization and voice. Nancy's post-intervention writing summary scores did not demonstrate that she improved in the area of ideas. In fact, they showed a decline in this area. The improvement of Nancy's scores in these areas could be attributed to the fact that her mid-intervention writing summaries were edited, revised and discussed regularly. These improvements are consistent with the findings of Furtado and Johnson's 2010 study in which they sought to examine the effectiveness of explicit instruction in the summarization of non-fiction and fiction text through the use of graphic organizers. The researchers found that the summarization skills of the participants improved in both genres rose after the information was conducted. Nancy's improvements could also be due to the fact that the mini lessons that were taught were tailored to the needs of the students and based on their performance on the writing summaries. During most of the research sessions pertaining to the

reading of a text, students completed a graphic organizer that focused on studying the structure of expository text ultimately assisting them to extract the most important information from the text. Previous research suggests that there are skills for comprehending narrative that are different from those that are needed to comprehend expository text (Best et al., 2008). In their 2008 study Best et al. studied the effects of reading decoding skills and world knowledge (background knowledge) on the reading comprehension of narrative and expository texts. The results showed that even after participating in this intervention, students' comprehension levels of narrative text were higher than they were for expository text. The performance that Nancy demonstrated on her posttest writing summary supports the fact that being familiar with the structure of expository text can improve the reading comprehension students. However, due to the fact that students are better able to comprehend narrative text, explicit instruction that includes that use of expository text is necessary (Best et al., 2008). The fact that Nancy's post-intervention writing summary score in the area of ideas/critical thinking declined, could be due to the fact that the writing was a summary of text she read, therefore making it difficult for her to use her own ideas in the summary and a lack of skills necessary to critically think about expository text.

The difference between Naomi's pre-intervention writing summary score and her post-intervention writing summary score showed that she improved in all but two areas assessed. While her scores did not decline in the areas of conventions and word choice, they also did not improve. As the mastery of emergent literacy skills is important to future academic performance (Lo, Wang & Haskell, 2009), Naomi's performance on the writing summary could have been affected by the fact that she had difficulty with foundational literacy skills. These findings coincide with the findings that Lo, Wang and Haskell (2009) concluded in their study. The

focus of this study was the effect of an early reading intervention had on the literacy skills of at-risk students. Researchers found that this early intervention had a positive effect on the literacy skills of the participants. The findings in this study support the fact that students can benefit from supplemental reading programs that focus on letter-sound correspondences and phoneme awareness as well as other low-level reading skills that do not show improvement in district-wide literacy programs. The deficits that Naomi demonstrated in these areas, may need to be addressed with a more intensive reading and writing intervention that include a specific focus on the areas in which she did not improve and lower level literacy skills. Research supports the fact that if students' educational needs are met early they can make significant gains in their reading skills, regardless of their skills at the start of the intervention, providing a solid foundation for the improvement of their overall literacy skills as demonstrated by Lo, Wang and Haskell (2009) (Spear-Swerling & Stenberg, 1994).

Like Naomi, Gina's comparison between the pre and post writing scores showed that overall the intervention was effective in improving her writing summary skills. However Gina, like Naomi and Nancy did not demonstrate improvement in all areas. Gina's post intervention scores showed that she improved in four of the six areas assessed, sentence fluency, word choice, organization and voice. Gina's scores were the same in the areas of conventions and ideas on her pre and posttest writing summaries. Studying and becoming familiar with the structure of expository text has shown to be effective in improving the reading comprehension in this genre (Williams, Pollini, Nubla-Kung, Snyder, Garcia, Ordynans & Atkins, 2013). The improvement in all but two areas assessed through the writing summaries demonstrates the intervention was effective in improving Gina's summarization skills and therefore becoming more familiar and comfortable with expository text. Gina's success in this intervention could be

attributed to the fact that the intervention included explicit instruction on the use of graphic organizers and the text structure of expository text. These findings are supported by the results of a study conducted by Williams, Pollini, Nubla-Kung, Snyder, Garcia, Ordynans and Atkins (2013). Williams et al. (2013) in which it was found that students who participants in this study improved in the area of reading comprehension after receiving an intervention centered around examining the text structure of expository text.

Research suggests that individualized instruction based on the needs demonstrated by each student, helps them to develop their own writing skills with the assistance of the teacher (Jones, Reutzler, Fargo, 2010). Although all of the participants demonstrated different strengths in the areas that were assessed on the writing summary, according to the assessment summary scores, the reading/writing workshop was effective in improving the overall writing summary skills of the participants. The reading/ writing workshop model allowed students to produce their own writing and receive immediate and individualized feedback. The mini lessons that were delivered during the intervention focused on the areas on which students scored poorly based on their mid-intervention summary scores and one-on-one conference that they had with the researcher. Focusing on these areas helped improve the overall writing summary skills of these students.

Test Of Oral Written Language-4 Results

The focus of this intervention was to determine whether explicit instruction in the use of graphic organizers to first organize ideas in a text and then write summaries about the text, could improve reading comprehension. The reading/writing workshop instructional model was used throughout this intervention. The Test of Oral Written Language-4 (TOWL-4) (Hammill & Larsen. 2009) was used to measure the effectiveness of the reading/writing workshop

intervention in the areas of spelling, vocabulary, punctuation, logical sentences, sentence combining, contextual conventions and story composition. Participants took both a pre and posttest intervention TOWL-4 (Hammill & Larsen 2009) assessment; the results of these assessments were compared.

When comparing Nancy's pre and post intervention assessment scores, she demonstrated improvement in the areas of vocabulary, logical sentences, sentence combining, contextual conventions and story composition, with the most improvement in the area of vocabulary. Nancy's posttest scores showed that she declined in the areas of spelling and punctuation. Since this intervention was tailored more toward the organization and comprehension of text rather than on spelling and punctuation, it is not surprising that Nancy did not show improvement in these areas. Organizing text is geared more towards looking at the structure of a text, and fostering new ways students can think about and analyze text, thus promoting improvement in reading comprehension (Chang, Sung & Chen, 2002) reading comprehension. Having students engage with a text through annotating and processing the information at a lower level through sentence processing and word recognition can promote higher level writing and reading comprehension skills like the ones assessed by the TOWL-4 (Hammill & Larsen, 2009; Ecalte, 2013). Nancy could benefit from specialized instruction in the areas of spelling and punctuation with the use of an intervention that focused on the essential building blocks of writing (Ritchey, 2007).

Naomi's TOWL-4 (Hammill & Larsen, 2009) posttest results showed that she demonstrated improvement in the areas of vocabulary, spelling, sentence combining, contextual conventions, and story composition, demonstrating the most improvement in the area of sentence combining. Naomi's improvements in these areas are supported by the fact that

reading comprehension is composed of array of skills, particularly written sentence comprehension and vocabulary (Ecalte et al., 2013). Naomi's TOWL-4 (Hammill & Larsen, 2009) posttest scores did not indicate an improvement or a decline in the area of logical sentences. Due to the fact that a large part reading comprehension is written sentence comprehension, Naomi's lack of improvement in this area could be due to the fact that she showed a lack of mastery in early literacy skills and overall reading comprehension which could have made it difficult for her to change sentences to make them the most logical. Naomi's lack of improvement in this area could also be attributed to her inability to understand individual words in a sentence and therefore the meaning of the sentence as a whole, making it difficult for her to gather meaning from the text (Ecalte et al., 2013). Naomi demonstrated a decline in the area of punctuation, this decline could have been due to the fact that there was not much of an emphasis on the use of punctuation in this intervention.

Gina's posttest scores indicated that she improved in the areas of spelling, punctuation, logical sentences, sentence combining, contextual conventions, and story composition. Gina demonstrated the most improvement in the area of contextual conventions, in which her skills were already average, according to her performance on the TOWL-4 (Hammill & Larsen, 2009) pretest. In the area of vocabulary, Gina's score remained the same. Gina's overall success and improvements in this intervention could be attributed to the fact that she possessed foundational reading skills and was able to build upon these skills to analyze and extract information from a text after receiving instruction on the use of graphic organizers and the text structure of informational text (Williams et al., 2013). The fact that Gina's posttest score did not demonstrate improvement nor a decline in the area of vocabulary could be due to the fact that she did not recognize the words on which she was assessed, thus making it difficult for her to

comprehend their meanings (Ecalte et al, 2013). Although Gina did not show improvement in the area of vocabulary, her mastery of skills taught in this intervention demonstrate her ability to learn, solidify and implement new skills.

Strengths and Limitations

This case study proved to have both strengths and limitations. The strengths of this case study include the improvement of the organization of the participants' writing summaries. The use of graphic organizers to aid in organizing the ideas in a text, proved to be beneficial for all of the participants. Using graphic organizers while reading the text to organize information after students annotated ideas in the text helped them to pick out the most important information in the text and familiarize them with the structure of expository text. Graphic organizers also helped students to understand how the ideas in the text were related and organized (Ermis, 2008). Informational text can prove to be difficult for students to comprehend due to the fact that they may not have background knowledge about what is being described in the text (Best et al., 2008). This type of text can also be difficult for students to process due to the amount of vocabulary knowledge that they are expected to possess (Ermis, 2008). Therefore the use of informational text in this intervention to study and analyze the structure of expository text helped students to process and understand the text being read. This study also gave students various opportunities to practice the same skills repeatedly with expository texts.

The limitations of this study include that there was no other way of measuring the reading comprehension of the participants aside from the written summaries. The written summaries showed that students could retell what the text was about in their own words, but were able to use the text and their notes while they were writing the summaries. Had students not been able to use their notes to write the summaries, the summaries may have been a better

indicator of reading comprehension. The summaries were also assessed using a very specific rubric. Using a rubric that assessed more of what the students had produced been used, a more well-rounded analysis could have been conducted. In this intervention there were two groups, one of these groups was the reading-to-learn group and the other was the learning-to-read group. The reading-to-learn group contained one student who could read independently but needed assistance in getting her ideas organized and on paper. The students in the reading-to-learn group demonstrated that they needed extra support in the areas of phonics, decoding and word recognition. Although the students in the different intervention groups had varying levels of literacy needs, they both received the same intervention. While the intervention itself aimed to help students improve their reading comprehension through the use of graphic organizers and summary writing, those in the learning-to-read group appeared to need more instruction in basic literacy skills that were not addressed by this intervention.

Recommendations

In this intervention, observations, informal and formal assessment information were collected and analyzed. Educational recommendations were made as a result of these analyses, a compilation of observations and the comparison of the pre and posttest data and mid-intervention summary data. Since the students in this intervention had just completed fifth and third grade, Common Core State Standards for the grades that they were entering (sixth and fourth grade, respectively) were used to determine educational recommendations (Common Core State Standards Initiative, 2012). When examining the progress that Nancy made during this intervention and the areas in which she still needed improvement it is recommended that Nancy receive more instruction in the use of ideas and critical thinking in her writing which would help her meet Writing Standard W. 6.8.1 (Common Core State Standards Initiative,

2012) for sixth grade. Nancy should also write about what she reads more often in order to solidify her writing skills in all of the areas that were assessed in this intervention. Nancy should also read multiple sources with the same topic which would help strengthen her ability to meet the Writing Standard W.6.8.1 (Common Core State Standards Initiative, 2012) for sixth grade. In terms of her reading skills, Nancy, should continue to read, engage in and analyze expository text both at home and school in order to help her meet the Reading Standard R.6.1 (Common Core State Standards Initiative, 2012) for sixth grade. As it is not typical that students receive explicit comprehension skills in grades four through 12, but are still expected to extract information from text independently, Nancy could benefit from implementing the reading comprehension skills she has learned independently (DiCecco & Gleason, 2002). Nancy could also benefit from instruction in the use of conventions, an area in which she scored half a point lower than she did in the other areas in the writing summary were assessed. The results TOWL-4 (Hammill & Larsen, 2009) posttest indicated that Nancy could use basic instruction in the areas of vocabulary, logical sentences, in which her skills were still average after the intervention. In the areas of spelling, punctuation, contextual conventions Nancy could also benefit from more intensive instruction as her scores showed that she was in need of intensive instruction in these areas. Through verbal communication during intervention sessions, Nancy openly expressed her dislike for reading and activities related to reading. Nancy also expressed her frustration with the writing process itself due to the fact that it was difficult for her to get her ideas on paper. Nancy should use texts about topics that she enjoys reading to practice and solidify both reading and writing skills in areas that were underdeveloped and eventually transfer this skills to texts that she does not necessarily enjoy reading about.

Naomi, a third grader in the learning-to-read intervention group, showed a genuine interest in improving her reading skills and asked multiply questions during instruction to ensure that she was on track. According to the results of the pretest assessments administered, Naomi's skills were underdeveloped in many areas at the start of the intervention. Naomi could benefit from further intensive instruction in the areas of conventions, sentence fluency, word choice, ideas and voice all areas in which she scored a three or below on her posttest. Further instruction in these areas would help her improve her ability to meet the Writing Standard W.4.2 (Common Core State Standards Initiative, 2012) for fourth grade. Naomi made the most improvement in the areas of writing organization, which is a skill that she should continue to practice and solidify. Despite improvement in five of the seven areas assessed by the TOWL-4 (Hammill & Larsen, 2009), posttest results show that Naomi should continue to receive instruction basic instruction in the areas of spelling, sentence combining, contextual convention, story composition, which could also strengthen her ability to meet Writing Standard W.4.5 (Common Core State Standards Initiative, 2012). Naomi should receive moderately intense instruction in the areas of vocabulary, punctuation and logical sentences. Due to the fact that reading comprehension is based on mastery of low level processing skills, Naomi should continue to receive intensive instruction in phonics and word recognition (Ecalles, Bouchafa, Potocki & Magnan, 2013). Instruction in these areas would increase her reading fluency and ultimately her reading comprehension, thus increasing her ability to meet Reading Standards RF.4.3 and RF.4.4 (Common Core State Standards Initiative, 2012). If Naomi can master and demonstrate an understanding of basic reading and writing skills with consistency, she will have a solid foundation to build upon with higher level reading and writing skills.

Gina, the other third grader in the learning-to-read intervention group showed improvement in all but two of the areas assessed through the analysis of the writing summaries. While Gina did not demonstrate improvement in the areas of conventions and the use of ideas/critical thinking, her performance also did not show a decline in these areas. Gina could benefit from receiving instruction in all of the areas assessed through the writing summaries, with explicit instruction in the use conventions and ideas/critical thinking in writing (Writing Standard W.4.2; Common Core State Standards Initiative, 2012). In terms of the areas assessed by the TOWL-4 (Hammill & Larsen, 2009), Gina should receive moderate instruction in the areas of vocabulary and spelling. Gina should also receive basic instruction in the area of logical sentences. Further instruction in these areas would improve her ability to meet Writing Standard W.4.5 (Common Core State Standards Initiative, 2012). In terms of other areas assessed Gina's posttest scores indicated that no additional instruction in these areas was needed due to her now above average performance in these areas. However, due to her grade level and how critical it is for students to have solid foundational literacy skills at her development level, Gina should continue to practice and implement the skills gained through this intervention in order to meet Reading Standards RF.4.3 and RF.4.4 (Best et al., 2008; Common Core State Standards Initiative, 2012).

Conclusion

The results of this intervention varied according to the participant. According to the results of the intervention, there were areas in which students showed greater improvement than others. On the writing summary, in the four areas in which Nancy did improve (sentence fluency, word choice, organization and voice), her improvements were by one and a half points in the area of conventions and two points in the other four areas that she improved.

Demonstrating that overall the reading/writing workshop was effective for improving Nancy's writing summarization skills. Among the areas in which Naomi demonstrated improvement, she showed the most improvement in the area of organization, which could be attributed to the fact that the skill of organizing ideas in a text, was explicitly taught. Like Naomi, Gina made the most improvement in the area of organization. Gina's improvement in this area could also be attributed to the explicit instruction this area. On the TOWL-4 (Hammill & Larsen 2009) posttest assessment, Nancy improved in five out of the seven areas assessed; Naomi improved in five of the seven areas assessed, while Gina demonstrated improvement in six of the seven areas assessed. Due to the fact that there was no definitive measure of reading improvement that was considered, it is important to consider the strengths and limitations of this study. An additional measure of the direct effect of the use of graphic organizers has on reading comprehension could improve this intervention making the results more transferrable to a larger population.

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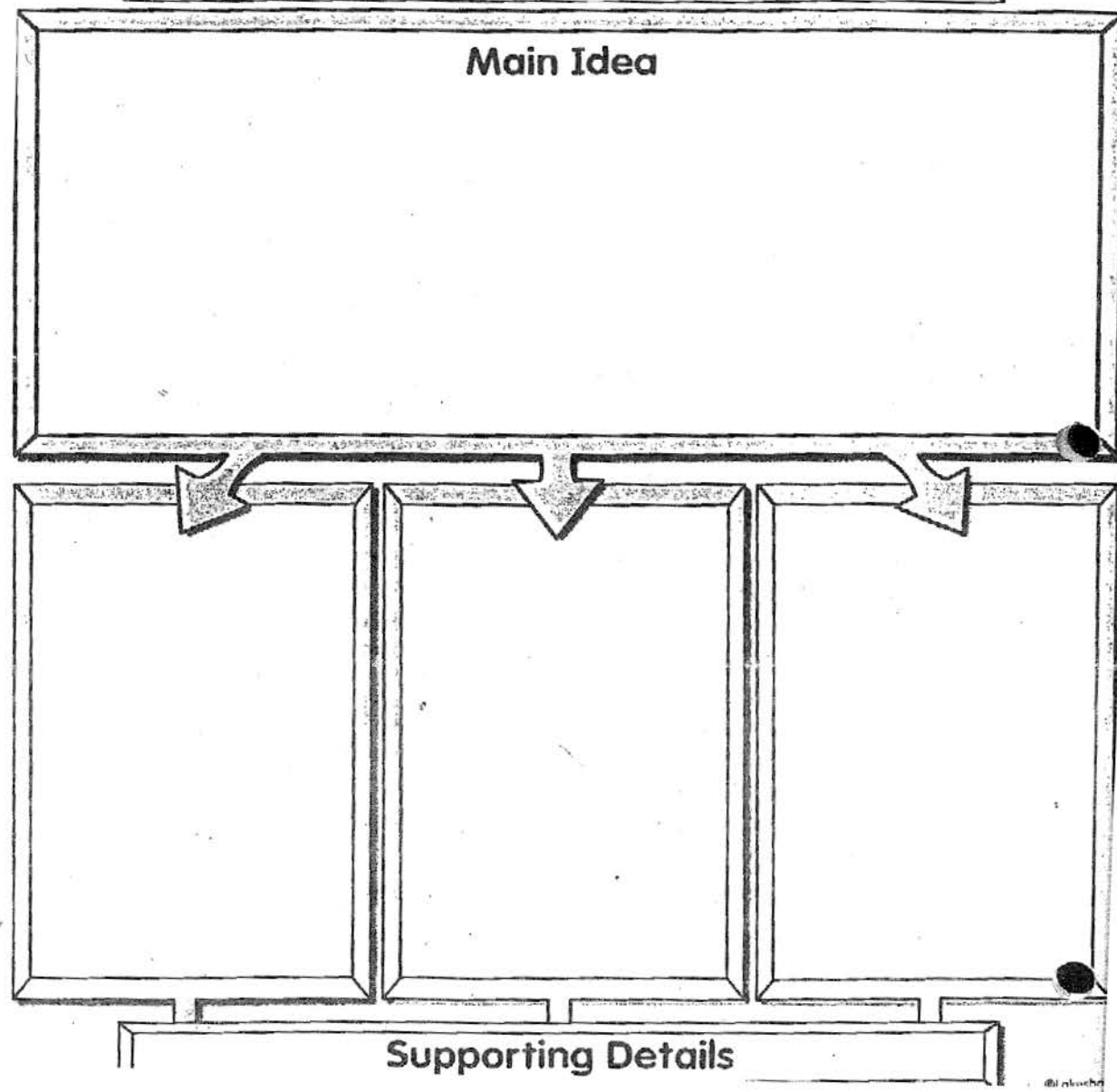
Appendix A
Graphic Organizer

What's the Main Idea?

Title:

Main Idea

Supporting Details



Appendix B
Graphic Organizer

Name: _____

Date: _____

Graphic Organizer

Main Idea:

Supporting Details:

Conclusion:

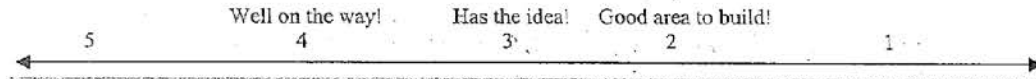
Appendix C
Writing Summary Rubric

RL 509/RLA 352: Student Writing Sample Assessment

Organization

Demonstrates logical organization:
beginning, middle, end (narrative);
main idea, details, sequential
steps (expository)
Conclusion brings closure

No obvious
organization
Lacks focus
No lead
No conclusion

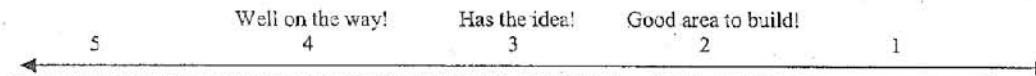


NOTES: What can my student do now? What does s/he need? Observations of process? Student comments?

Voice

Clearly writes to audience
Lively, engaging
Fits topic

Flat, boring
Overdone
Not right for audience



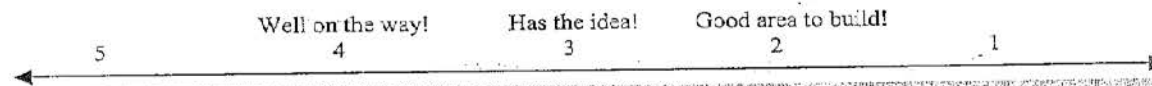
NOTES: What can my student do now? What does s/he need? Observations of process? Student comments?

RL 509/RLA 352: Student Writing Sample Assessment

Word Choice

Descriptive, vivid
Original, natural
Wide choice of vocabulary
Clear, precise words

Minimal adjective use
Sparse descriptive details
Vague, general word use
Inappropriate jargon

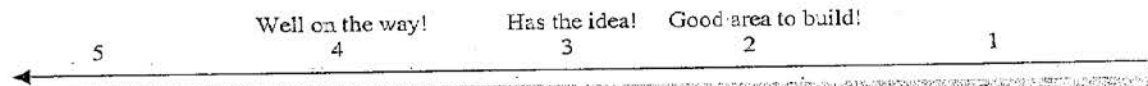


NOTES: What can my student do now? What does s/he need? Observations of process? Student comments?

Critical Thinking / Ideas

Evidence of higher level thinking skills
Synthesizing ideas
Depth of knowledge
Solid, accurate, factual information
Makes clear points

No clear main point
Simple statements of fact
Weak support for ideas
Few idea connections
Information inadequate



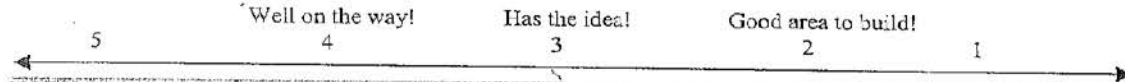
NOTES: What can my student do now? What does s/he need? Observations of process? Student comments?

RL 509/RLA 352: Student Writing Sample Assessment

Sentence fluency

Variety of sentences
 Logical flow
 Sentences combined through conjunction use
 and/or introductory phrases

No logical sequence
 Sentence all same structure
 Run-on sentences, fragments
 Choppy phrases
 Difficult to get through

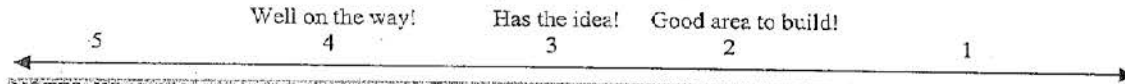


NOTES: What can my student do now? What does s/he need? Observations of process? Student comments?

Conventions / Presentation

Minimal spelling errors
 Minimal grammatical errors
 Neat, legible handwriting
 Punctuation correct

Many spelling errors
 Many grammar errors
 Illegible handwriting
 Punctuation errors



NOTES: What phonetic cues does my student use in spelling? What can my student do now? What does s/he need? Observations of process? Student comments?