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ABSTRACT

A second grade Title I teacher conducted a study on how to help students become better comprehenders and to see what strategies students could be taught that would help them to comprehend and recall what they read. Participants were in an extended day program; they attended class after school two days a week. The section taught by the teacher/researcher was for reading improvement; students were chosen for the program by criteria established by the school district. Student reading levels assessed by the Title I teacher and based on Running Records (Clay, 1985) were collected. Data on comprehension were collected through students reading from "Primary Phonics" readers and then answering comprehension questions and also through observation during instruction. Instruction in visualization was begun by brainstorming what students believed was happening in a story only by looking at one picture. Next the teacher read the text along with the picture. Students found the picture helped them little with the reading. Then, the students were told to close their eyes and create a mental picture in their minds while listening to a portion of a story read to them. The better picture was the picture created in their minds. Little by little the amount of text read in between questioning sessions increased. Graphic organizers were used to review the stories. Webbing was used to show the connections between characters in a story. Students used listing to sequence the appearance of story characters. A story map visually showed the different parts of the story for students. Out of 15 research subjects, 10 students were having difficulty only with comprehension and not with reading the text as indicated through the Running Records analyzed. Reading levels assessed by the teacher showed that five students did not increase their reading level from the fourth 6 weeks reporting period to the fifth 6 weeks. Appendixes contain a list of district benchmark objectives, a table of data, and a pie chart. (Contains 16 references.) (NKA)

Running head: VISUALIZATION AND READING COMPREHENSION

Visualization and Reading Comprehension

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Visualization and Reading Comprehension

During my years as a second grade Title I teacher, I found that there are two kinds of second grade Title I students. One group had difficulty decoding the print and therefore comprehension is lost. The second group could decode with minimal mistakes, but they still could not tell you what they read. In the first group, once the "print" difficulties were improved, the same comprehension problem still remained.

As a title teacher, I only saw my kids for thirty minutes four times a week. Knowing that it takes both decoding and comprehension to read I knew that these kids were moving into third grade, not being able to show comprehension through discussion or remember what they read. What's more, more and more second graders suffered with poor comprehension skills. Even average readers begin to loose ground with the higher demands of third grade and expository text.

When I first began teaching Title classes, these are the two questions that bothered me most:

1. How can I help students become better comprehenders?
2. What strategies can I teach them to use that will help second grade students of all abilities and reading levels to comprehend and recall what they read to become more successful readers and learners?

Literature Review

Research proves that students who create visual images before, during, and/or after reading enhance their comprehension (Douville, 1999; Fillmer & Parkay, 1990; Gambrell &

Bales, 1986; Peters & Levin, 1986; Pressley, 1977; Sadoski, Paivio & Paivio, 2001; Williams, Konopak, Wood & Avett, 1992). Braunger and Lewis (1998) said that readers do not take in print and receive words off the page. They actively engage with the text and build their own understanding. Authors of *Mosaic of Thought*, Ellin Oliver Keene and Susan Zimmermann (2002), said that good readers use metacognitive thinking, question the author, activate their schema, find the importance of text, use inferences while reading, use sensory images and synthesize new information (Wood, 2002).

Independently, images and illustrations aid in the reading performance of students. Combined, images and illustrations, aid in the increase of comprehension and recall (Gambrell & Jawitz, 1993). Comprehension and recall are also enhanced with the use of graphic organizers (Birsh, 1999). Students can use a graphic organizer to summarize, analyze, discuss, and evaluate. Graphic organizers help students to decide what information is needed and on what to focus their attention (Smith & Hogan, 1991).

The advancement from teacher-directed to student-directed learning is an important transfer for independence in comprehension (Gambrell, Kapinus, & Wilson, 1987). Visualization, whether mentally or creating graphic organizers and pictures visually, will assist students to better comprehend and recall. Tools that students can relate to and use will be more apt to be used in the regular classroom.

Procedures

The students that participated in this study were participants in the extended day program. They attend class for one hour and thirty minutes after school two days a week. The second grade extended day students are divided into two forty-five minute sections. The section I teach

is for reading improvement. Pupils were chosen for the program by criteria established by the school district. The criteria consisted of the following: the student's report card, teacher recommendation and the midyear district created benchmark test score. Seven Hispanic and eight Anglo students attend the program at this rural elementary school near Austin, Texas. Seven students are girls and eight are boys.

Several types of data were collected in this study. Student reading levels assessed by the Title I teacher and based on Running Records (Clay, 1985) were collected. The Running Records included the students' reading rate and reading level. They were gathered for the purpose of considering who also had difficulty with decoding as well as comprehension. The district created benchmarks were looked at and considered for extra data (See Appendix A of sample information tested). Students also read a selection on their own from the *Primary Phonics* readers written by Barbara W. Makar (1977) and then circled or wrote the correct answer to comprehension questions read to them. The comprehension questions consisted of character, main idea, inference, detail and evaluation types of questions. The students were assessed with these tests before and after the study. I also collected data on comprehension through observation during instruction. The number of times students' raised their hand to answer a question and the number of correct responses were noted.

Implementation

I began instruction in visualization by brainstorming what they believed was happening in a story only by looking at one picture. I showed them a picture that contained a man sitting down on the ground as money fell from the sky. Students brainstormed on what they believed was happening in the story based what they saw in the picture. Then I read the text that went

along with the picture. The story was about a man jumping up and down, getting a stack of money the size of a house, and having a wagon that needed a hundred horses to pull it. The students found that the picture helped them little with the reading. Then, the students were told to close their eyes and told to create a mental picture in their mind while listening to a portion of a story read to them. After the reading the students shared their mental pictures. I then showed them the picture that went with the story. Again the better picture was the picture created in their head.

The stories they read were simple, phonics build-up books called *Primary Phonics* written by Barbara W. Makar (1977). The books had text that the students had the skills to decode and I typed the text onto a piece of paper so there were no pictures. Students were reminded each time before reading about creating a movie, cartoon or picture in their head as they read. Then students were given the text and read small sections of text which we read two to three times. Text was read the first time to figure out the words. The second time text was read it is for fluency and recall. After each small section, different types of comprehension questions were asked. At the end of the story, comprehension questions were asked that encompassed the whole story. Little by little the amount of text read in between questioning sessions increased.

Graphic organizers were used to review the stories. Webbing was used to show the connections between characters in a given story. Students used listing to sequence the appearance of characters in a story. A story map visually showed the different parts of the story for students. Graphic organizers aided students who have a difficult time learning how to visualize mentally in the beginning of the lessons. They also provided tools for students to better organize information in expository text.

A few comprehension questions were asked after each section was read. At the end of the story, more complex comprehension questions were asked requiring student to evaluate, analyze, and infer. As time went on, students read more text before comprehension questions were asked. Graphic organizers were also introduced and used during the lessons.

Results

This study was over a four week period. Students showed some signs of progress (see Appendix B). Running Records from the beginning of the year to the time of this study were collected and analyzed to find students who did not have trouble reading the text, but were still listed as at-risk or below grade level. This indicated to me that these students were mainly having difficulty with comprehension. Out of fifteen research subjects, ten students were having difficulty only with comprehension and not with reading the text as indicated through the Running Records analyzed.

Reading levels assessed by the Title I teacher showed that five students did not increase their reading level from the fourth six weeks reporting period to the fifth six weeks. Their Title I teacher obtained their reading levels through a running record. However, from the multiple choice tests I administered, all five students showed an increase in the number of comprehension questions they answered correctly after reading text from the *Primary Phonics* (Makar, 1977) readers on their own. Nine students showed progress in their reading levels and comprehension. One student showed regression in his Running Records, reading level, and number of comprehension questions answered correctly on the assessments I gave him. This student has been evaluated by the special education department and did not qualify for any services. He is currently working at his potential level. This is his second year in the extended day program.

District benchmark tests were also considered for extra data (See Appendix A for information on what was tested). Question objectives included identifying the importance of the story's meaning, analyzing character feelings including traits, relationships, and changes, producing summaries, recognizing the story problem [plot], making and explaining inferences, causes and effects, making predictions, and conclusions. The students did not miss any one type of comprehension question on the benchmark. The amount of objectives missed varied (see Appendix C). Objectives were derived from the TEKS (Texas Essential Knowledge and Skills) and the objectives of the TAKS (Texas Assessment of Knowledge and Skills). The ARI (Academic Reading Initiative) was also considered in the development of the benchmark.

Observations and drawings made by the students were also considered. The students drew what they remembered from the story they read. They were required to explain their drawing to another student about what they remembered. I observed their explanations and information remembered. This was done in the early part of the instruction and twelve out of the fifteen students studied did not recall much to draw. Three students drew items or events that did not occur in the story. I continued to monitor their answers and the number of times students provided correct and incorrect answers.

Conclusion

Teachers ask me why I serviced their students in Title I when they were reading well above their grade level. The truth was the children could "read" any "words" put in front of them. The students were assessed on their sight word ability, fluency and rate through Running Records. However, comprehension was not assessed. Questions were not asked about what they read. When I asked questions regarding what they read or asked what they thought based on

something they just read, they had no clue. I went from servicing twenty-five children in Title I services one year, to servicing forty-eight the very next year. I divided the children into two groups according to their needs. One group consisted of students who only had difficulty with comprehension. The other group consisted of students who also had difficulty reading the text. Students were reading, but not comprehending. This is why I chose to study visualization as a tool for reading comprehension to help my students become better comprehenders.

In the past I have used visualization as a comprehension strategy with my Title I students. Over time, through these strategies, I taught my Title I students to be more responsible for their reading and recall. Students were shown how to visualize during reading through my modeling of the techniques. Students practiced the techniques and the amount of text increased as success increased. When the students were eventually ready to read the entire story without stopping, they were able to read the text one time instead of two or three before questions were asked because they were fluent readers by then.

Just like students from my Title I classes, some progress with reading comprehension occurred during this four week study. However, higher gains had occurred with the Title I students because they attended classes over the length of the entire school year. Furthermore, it was successful because at-risk students had more consistent practice than the extended day children. Title I students met four to five days per week for thirty minutes each session. This was more beneficial to at-risk students than two times a week for forty-five minute sessions. Through my observations, students demonstrated a weaker ability to grasp information and retain it. This is why sessions need to be shorter and more frequent.

Now having taught dyslexic children for five years, I see the same problems with comprehension in my dyslexic students that I saw in my Title I students. I show them how to

visualize while they are reading and how to use graphic organizers. Webbing connections between characters, sequencing order of appearances and visual story mapping, all are tools for students to organize information.

Through this study I have seen that these techniques help students to recall information through data collected in Running Records, observations, reading assessments, and district benchmark tests. I have research information that strengthens my conviction that visualization is a powerful tool. Smiles and hugs of successful readers make me feel like I can do it all again next year.

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District Benchmark Objectives

ITEM	MATRIX #	OBJECTIVE	ANSWER	TAKS	TEKS	ARI
1	98	Identify the importance of the setting to a story's meaning	D	2	11I	
2	96	Analyze character feelings including traits, relationships, and changes	F	2	11H	*
3	56	Recognize summaries	B	1	9H	*
4	99	Recognize story problem [plot]	G	2	11J	
5	57	Make and explain inferences, causes and effects, making predictions, and conclusions	A	4	9F	
6	53	Determine text's main idea	G	1		
7	54	Determine how a main idea is supported by details	A	4		
8	16	Produce rhyming words and distinguish rhyming from non-rhyming words	F	1		*
9	26	Decode by using all letter - sound correspondence within regularly spelled words	A	1	5A	*
10	15	Identify, segment, and combine syllables within spoken words	F	1		*
11	38	Use structural cues to recognize words such as compounds, basewords, and inflections	A	1	5F	
12	34	Demonstrate knowledge of synonyms by sorting and classifying	G	1		
13	39	Read multi-syllabic words using regularly spelled phonograms	A	1	5D	*
14	40	Recognize high frequency irregular words such as *said, where, was*	F	1	5C	*
15	118	Recognize and locate information including table of contents, chapter titles, guide words and indices	A	3	12C	
16	27	Use letter-sound knowledge to read decodable text [engaging and coherent texts]	F	1	5A	*
17	125	Read regularly in instructional-level materials that are challenging but manageable [texts in which no more than 1-10 words are difficult for the reader] a typical second grader reads 70 wpm	A	1	6B	*
18	49	Retell [or act out] the order of the important events in stories	F	1	9C	*

Reading Progress

Students	1st RR	2nd RR	Comp. Prob.	Rdg. Prob.	1st Test	2nd Test	
*George	D	C	*	*	-5	-7	
Susie	I	L	*		-4	-5	
Bob	J	K	*	*	-4	-6	
Shilta	K	L	*		-7	-4	
Beth	J	K	*		-4	-2	
Tom	K	L	*	*	-2	-2	
Shelita	K	K	*		-3	-2	
Tim	J	J	*	*	-4	-3	
Elizabeth	J	K	*		-2	-2	
Bernard	K	K	*	*	-6	-5	
Henrietta	K	K	*		-4	-2	
Betty	K	L	*		-2	-5	
Bobby	K	K	*		-7	-4	
Andrew	J	L	*		-5	-5	
Matthew	J	K	*		-4	-6	

Notes:
RR = Running Record

1st Test & 2nd Test = Benchmark tests

*All students names are pseudonyms.

Comprehension Related Questions Missed on District Benchmark
Missed 1
Missed 2
Missed 3
Missed 4
Missed 5
Missed None
6
0
2
2
2
2

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