

RUNNING HEAD: 7 Keys to Comprehension

THE EFFECTS OF TEACHING THE 7 KEYS OF COMPREHENSION ON
COMPREHENSION

By

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ABSTRACT

This study was completed to find if there is a difference in comprehension scores before and after being taught the Seven Keys to Comprehension. The students were given the AIMSweb Maze comprehension test, which is a passage the students read and chose the correct word to go in each sentence as they read. There are thirty two points possible and they are given three minutes to complete it. The students were given the test before and after being taught the Seven Keys to Comprehension. Findings of this study show that eighteen second graders did improve their comprehension scores after being taught the Seven Keys to Comprehension. After reviewing the findings of this study and current research and literature it is found that teaching the Seven Keys to Comprehension is beneficial in helping students improve comprehension skills.

INTRODUCTION

Background, issues, and concerns

Student's comprehension scores were low on running records. The students were reading fluently at one level, but when it came to comprehending what they were reading their scores showed limited comprehension. Comprehension has to do with thinking, learning, and expanding a reader's knowledge. Students need to focus on building on past knowledge and mastering new information. Comprehension is important because if students don't understand what they are reading their not really reading. A big concern is Adequate Yearly Progress for low scoring readers because if the school fails to meet the AYP for two years then the school is identified for school improvement.

Practice under investigation

The practice under investigation will be looking at students AIMSweb Maze comprehension scores before and after being taught the Seven Keys of Comprehension.

School policy to be informed by study

Conceptual underpinning

Every student learns differently. It is important to find out how each student learns and incorporate this into teaching. Students learn in a variety of ways and according to Howard Gardner there are eight different types of learning styles. Gardner's eight multiple intelligences are visual-spatial, bodily-kinesthetic, musical, interpersonal, linguistic, logical-mathematical, and naturalist (Guignon, 2010). It is important to incorporate these styles when teaching the Seven Keys to Comprehension. In theory, students taught with the Seven Keys to Comprehension will have increased academic

achievement. Students who are taught the Seven Keys to Comprehension are able to analyze and interpret information which strengthens their comprehension.

Statement of the problem

The problem is determining an effective methodology to increase student achievement in the area of reading comprehension.

Purpose of the study

The purpose of the study is to find out if teaching the Seven Keys of Comprehension will improve comprehension scores.

Research question

RQ 1: Is there a difference in comprehension scores before and after being taught the Seven Keys to Comprehension?

Null hypothesis

There is not a difference in comprehension scores before and after being taught the Seven Keys to Comprehension.

Anticipated benefits of the study

If there is a difference in comprehension scores before and after teaching the Seven Keys to Comprehension, teachers will need to teach these strategies to students to help them with comprehension.

Definition of terms

AIMSweb Maze Standard Test-test given to the students to determine comprehension skills before and after learning the Seven Keys to Comprehension

Seven Keys to Comprehension-seven strategies that are taught to students to help them with comprehension

Summary

A study was conducted to see if student's comprehension would improve after being taught the Seven Keys to Comprehension. If the study shows that it does teachers should teach the Seven Keys to Comprehension in their classrooms to help their students with comprehension. Teachers need to include the multiple intelligences when teaching the Seven Keys to Comprehension in order for all students to be successful learners.

REVIEW OF LITERATURE

Pardo (2004) states “comprehension is a complex process that has been understood and explained in a number of ways. The RAND Reading Study Group (2002) stated that comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Pardo, 2004, p. 272) . This article discusses that one of the most important strategies of comprehension is background knowledge. The more the reader connects with the text the more likely the reader will be able to make sense of what is being read. One way that teachers can build on this knowledge is by creating visual or graphic organizers that help students to see new concepts and relate previous concepts to the new ones. “Comprehending is a complicated process. Yet it is one of the most important skills for students to develop if they are to become successful and productive adults” (Pardo, 2004, p. 278).

The Seven Keys to Comprehension were discussed in the book *7 Keys to Comprehension How to Help Your Kids Read It and Get It!* written by Susan Zimmermann and Chryse Hutchins (2003). These are strategies that help students to comprehend the text they are reading, whether it is a textbook or a book they are reading for fun. The seven keys are creating sensory images, using background knowledge, asking questions, making inferences, determining the most important ideas or themes, synthesizing information, and “fix-up” strategies (Zimmermann & Hutchins, 2003).

Creating sensory images is “creating a wide range of visual, auditory, and other sensory images as they read, and they become emotionally involved with what they read” (Zimmerman & Hutchins, 2003, p. 5).

Using background knowledge is “using prior knowledge before, during, and after reading to enhance their understanding of what they’re reading” (Zimmerman & Hutchins, 2003, p. 6). Background knowledge includes text to self, text to text, and text to world. Text to self is making a connection of something from their life. Text to text is making a connection with something that was read previously. Text to world is making a connection with something in the broader world.

Asking questions is “generating questions before, during, and after reading to clarify meaning, make predictions, and focus their attention on what’s important” (Zimmerman & Hutchins, 2003, p. 6).

Making inferences is “using prior knowledge and information from what they read to make predictions, seek answers to questions, draw conclusions, and create interpretations that deepen their understanding of the text” (Zimmerman & Hutchins, 2003, p. 6).

Determining the most important ideas of themes is “identifying key ideas or themes as they read, and they can distinguish between important and unimportant information” (Zimmerman & Hutchins, 2003, p. 6).

Synthesizing information is “tracking thinking as it evolves during reading, to get the overall meaning” (Zimmerman & Hutchins, 2003, p. 6).

Using “fix-up” strategies is “aware of when they understand and when they don’t. If they have trouble understanding specific words, phrases, or longer passages, they use a wide range of problem-solving strategies including skipping ahead, rereading, asking questions, using a dictionary, and reading the passage aloud” (Zimmerman &

Hutchins, 2003, p. 6). These strategies are used together to help students with comprehension and can be used in all areas of the curriculum not just reading.

Another book, *Strategies that Work Teaching Comprehension to Enhance Understanding* written by Stephanie Harvey and Anne Goudvis discusses five strategies to enhance comprehension. These five strategies include making connections, questioning, visualizing and inferring, determining importance in text, and synthesizing information. All five of these strategies were discussed earlier in the previous book.

An article by Susan Dymock and Tom Nicholson (2010) supports that teaching what they call the “High 5!” will help students tackle expository texts with success. They define a comprehension strategy as “a plan or technique used by students to get information they need from the text, whether it is for the purpose of choosing the correct stem on a multiple-choice test or getting enough information to construct an effective report or essay” (Dymock & Nicholson, 2010, p. 166). They discuss in this article the importance of teaching these five strategies: activating background knowledge, questioning, analyzing text structure, creating mental images, and summarizing. These strategies should be taught one at a time over a long period of time. Some people believe that students will automatically pick up these strategies, which may be the case for some students, but not for all. Teaching these strategies is important for students to be able to comprehend text in a meaningful way.

Students as young as kindergarten can be taught comprehension strategies. Gregory and Cahill (2010) wrote an article about how kindergarteners can begin with the easy strategies of comprehension which include activating schemas, making connections, visualizing, asking questions, and inferring. The students in Mrs. Hope’s classroom used

all of these strategies for comprehension. As discussion with the students continues the students would hold up their hands in different forms. A hand in the shape of a C means the student has a connection to the story. A hand in the shape of a V means the student has a mind movie or a description of her visualization. A wiggling index finger up and down means the student has a question. All of these hand motions are connected to the comprehension strategies that they learned in the classroom. These students were able to construct meanings and interpretations for text.

Neufeld had five helpful hints to keep in mind while planning and teaching comprehension. The five hints were “teaching a few comprehension strategies well is more effective than teaching many strategies poorly, teach students to use strategies flexibly, adapting them to their needs, their individual references, and the text at hand, remember that reading comprehension strategies are a means to an end and not the end, students need many opportunities to practice the strategies they are learning, and becoming an effective teacher of reading comprehension takes most teachers several years” (Neufels, 2005, p. 310-311).

RESEARCH METHODS

Research Design

A quantitative study was conducted to see if there was a difference in comprehension scores before and after being taught the Seven Keys to Comprehension. The independent variable being tested was the Seven Keys to Comprehension, while the dependent variable tested was AIMSweb Maze Standard Test.

Study Group Description

The study group for this research consisted of eighteen second grade students. These students attend a private school in a rural community. The ethnicity of these students is 99% white and 1% Asian. Four of the students are eligible for free or reduced lunches. Two of the students have Individual Education Plans.

Data Collection and Instrumentation

The AIMSweb Maze Standard Test was given to all eighteen second graders. The students were taught the Seven Keys to Comprehension and then tested again.

Statistical Analysis Methods

A t-Test was conducted to find if there was a significant difference in AIMSweb Maze Standard Test scores before and after being taught the Seven Keys to Comprehension. The mean, mean D, t-test, and p-value were concluded from this test. The alpha level was set at 0.25 to test the null hypothesis. There is a difference in test scores before and after students were taught the Seven Keys to Comprehension.

FINDINGS

A t-Test was conducted to decipher whether there was a difference in performance on the AIMSweb Maze Standard Test before and after being taught the Seven Keys to Comprehension. The following tables, graphs, and charts will depict the organized findings based on the statistical raw data from the tests.

Figure 1

t-Test Analysis Results for Seven Keys to Comprehension

Source	Mean	Mean D	<i>t</i> -test	df	<i>p</i> -value
Pre 7 keys (n=18)	12.17				
Post 7 keys (n=18)	19.89	-7.72	-2.91	34	0.01

Note: Significant when $p \leq 0.25$

Eighteen second grade students were selected for a study to determine if there is a difference in comprehension scores before and after being taught the Seven Keys to Comprehension. The mean of the students Pre 7 Keys was 12.17 and the mean Post 7 Keys was 19.89. The Mean D, or difference between the two groups was -7.72. The t-Test result was -2.91 and the df was 34. The null hypothesis states that there is not a difference in comprehension scores before and after being taught the Seven Keys to Comprehension. This null hypothesis was rejected because the p-value, 0.01, is lower than the alpha level, 0.25. This shows that teaching the Seven Keys to Comprehension does significantly impact the student's comprehension scores.

CONCLUSIONS AND RECOMMENDATIONS

The null hypothesis stated that there is not a difference in comprehension scores before and after being taught the Seven Keys to Comprehension. The findings show there is a significant difference in comprehension scores before and after being taught the Seven Keys to Comprehension. The t-test results indicated that the p-value was .01, which is lower than the alpha level set at 0.25: therefore, the null hypothesis tested is indefinitely rejected with confidence. There is a difference between comprehension scores before and after being taught the Seven Keys to Comprehension.

The conceptual underpinning that students who are taught the Seven Keys to Comprehension will have increased academic achievement is supported by these research findings. Students who are taught the Seven Keys to Comprehension are able to analyze and interpret information which strengthens their comprehension. Every student learns differently. It is important to find out how each student learns and incorporate this into teaching. Students learn in a variety of ways and according to Howard Gardner there are eight different types of learning styles. Gardner's eight multiple intelligences are visual-spatial, bodily-kinesthetic, musical, interpersonal, linguistic, logical-mathematical, and naturalist (Guignon, 2010). Teachers should implement different learning styles into teaching the Seven Keys to Comprehension to help all students to be successful. The results of this study prove that second grade teachers should teach the Seven Keys to Comprehension.

Further studies could be conducted to see if other grades would also benefit from being taught the Seven Keys to Comprehension. It would be interesting to conduct this study K-6th to see if it had the same results in all of the grades.

REFERENCES

- Dymock, S., & Nicholson, T. (2010). High 5! Strategies to enhance comprehension of expository text. *The Reading Teacher*, 64(3), 166-178.
- Gregory, A., & Cahill, M. (2010). Kindergartners can do it, too! comprehension strategies for early readers. *The Reading Teacher*, 63(6), 515-520.
- Guignon, A. (2010). Howard Gardner multiple intelligences: a theory for everyone. Education World, Retrieved June 20, 2013 from http://www.educationworld.com/a_curr/curr054.shtml.
- Harvey, S., & Goudvis, A. (2000). *Strategies that work*. Maine: Stenhouse Publishers.
- Neufeld, P. (2005). Comprehension instruction in content area classes. *The Reading Teacher*, 59(4), 302-312.
- Pardo, L. (2004). What every teacher needs to know about comprehension. *The Reading Teacher*, 58(3), 272-280.
- Zimmermann, S., & Hutchins C. (2003). *7 keys to comprehension*. New York: Three Rivers Press.