

**COMPARING THE RELATIONSHIP OF VERBAL IMAGING
INSTRUCTIONS AND KINDERGARTNERS' ABILITIES TO
RETELL A STORY.**

THESIS

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ABSTRACT

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story when no verbal imaging instructions were given. The subjects of this study were twenty-six kindergarten children attending an urban school district in Western New York State.

The subjects listened to a chapter of a story and were asked to retell the structural elements in the chapter. The same subjects listened to another chapter of the same story, comparable in length and complexity, but this time the subjects received verbal imaging instructions. The subjects were asked once again to retell the structural elements of the chapter.

The story retellings were compared through the use of a t test. The results showed a statistically significant difference in childrens' abilities to retell the story.

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CHAPTER 1

Statement of the Problem

Purpose

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story without verbal imaging instructions.

Need for the Study

Imagery is a natural resource that almost everyone possesses. Visual imagery is a primary biological function (Forrest, 1982) and therefore imaging is universal and can be used by all learners (Thompson, 1991). It can be viewed as the means by which a child represents his world, his actions and his experiences to himself.

Imagery has been known to be effective for retaining verbal information for thousands of years (Hodes, 1991). More recently, researchers (Danko, 1992; Olson, 1991; Thompson, 1991) have recommended that creating mental images can enhance comprehension of reading materials. In fact, the act of reading is viewed as a sense of creating images in the mind in response to the written words (Thompson, 1991).

Although imaginal processes have been shown to enhance learning and memory tasks (Hodes, 1992) and are considered to be pervasive throughout

reading (Thompson, 1991), imagery is thought to be underused in instructional situations (Wheatley & Grayson, 1991). Most educators are uninterested in visual thinking. In fact school, more than any other institution, is responsible for down grading visual thinking (Wheatley & Grayson, 1991).

Although many teachers view retelling as being very time consuming and also difficult for children to perform, retelling as an effective instructional technique to aid children's comprehension has been emphasized by researchers (Blank & Frank, 1985; Gambrell, Pfeiffer & Wilson, 1985; Morrow, 1985).

Retelling is defined as the reconstruction of any kind of text (Frew, Jaton & Morris, 1989). Thus, retelling requires students to use an organizational structure to retrieve and recall information (Blank & Frank, 1972). It also requires students to actively reconstruct a detailed sequence of events (Pickert & Chase, 1985).

Morrow (1985) found that retelling is a learned strategy. She suggests that children receive guidance, with an emphasis on story structure, to help them learn how to retell. In addition, Morrow (1985) states that children require frequent retelling practice. Thus, with guidance and practice, retelling can enhance comprehension.

The instructional strategies of retelling and verbal imagery instruction appear to complement one another. As stated earlier, visual imagery is thought to enhance the ability to recall information. The process of retelling a story requires the students to actively retrieve and recall information. Thus, it

only seems logical that if using imagery enhances memory and recall, then it should improve the ability to retell a story.

Question

Are there any statistically significant differences in kindergartners' abilities to retell a story when they are given verbal imaging instructions as compared to retelling a story without verbal imaging instructions?

Limitations of the Study

It is not possible to observe visual imagery in a direct manner, instead its presence must be inferred. Therefore it is difficult to determine if the subjects actually followed verbal imaging instructions while they listened to the story. Also, it is important to note that although imagery is universal and everyone has the ability to form images, the quality of images varies among individuals. The qualitative factors can depend upon the maturation and experience of the individual (Levin & Pressley, 1978). In addition, the ability to retell a story varies among individuals depending upon the amount of practice a child has had in retelling a story (Morrow, 1985).

Summary

The study sought to determine if there were any statistically significant differences in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story without verbal imaging instructions.

CHAPTER II

Review of the Literature

Purpose

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story without verbal imaging instructions.

Visual Imagery

Visual imagery is not a skill (Lovgren, 1977). The ability to visualize is part of the thinking process in one's own information processing system (Oliver, 1982). Visual imagery is a primary biological function (Forrest, 1982) and therefore imaging is universal and can be used by all learners (Thompson, 1991).

Imagery has been known to be effective for retaining verbal information for thousands of years (Hodes, 1992). In fact it dates back to the times of Aristotle (Thompson, 1991). Imagery is now understood to be an important nonverbal mental process used for learning (Hodes, 1992).

Popular view of the imagery function, the dual-code theory, holds that verbal and non verbal information are processed in functionally independent but interconnected systems (Hodes, 1992). The two systems in the dual-code theory are in the Pictorial system and the Linguistic system.

The Pictorial system is specialized for perceptual knowledge: encoding, storing, organizing, transforming, and retrieving spatial information about

concrete objects and events (Hodes, 1992). The Linguistic systems deals with information in discrete verbal units and is specialized to deal with sequential information (Hodes, 1992). Dual-coding occurs when distinct visual and verbal codes interact extensively for learning.

In light of the Dual-code theory, imagery has been used as a cognitive strategy to help learners increase meaning of materials, to infer meaning from both new and prior knowledge, to increase learning of abstract concepts and to make information more distinctive and unique to the learner (Hodes, 1992). It is important to note at this point that typically, visual mental imagery is used as a cognitive strategy rather than an instructional variable (Thompson, 1991).

Although all learners are able to form visual images, the quality of mental images varies according to the individual. There are two viewpoints hypothesizing the qualitative differences. First is the Developmental Imagery Hypothesis. This theory states that the ability to form images is developmental in nature and imagery generation competence develops with age (maturation) (Levin & Pressley, 1978).

In the study conducted by Levin and Pressley (1978) several separate samples of kindergarten children were administered a pictorial paired-associate learning task at the beginning and end of the school year. The subjects were randomly placed in the imagery group or control group. The imagery subjects were told to make a mental picture of the two objects in each pair presented doing something together. The control subjects were told to try hard to remember the objects, but they were provided no specific learning strategy. At the time of fall

testing, the children's age range was 4 years 11 months to 6 years 0 months. In the spring the children ranged in age from 5 years 6 months to 6 years 7 months.

The results showed that in each testing period the performance of the imagery groups were significantly better than the control group. In addition, the older children in imagery groups performed the best. In contrast, age was not significantly related to learning in the control condition. These findings lend support to the developmental imagery hypothesis (Levin & Pressley, 1978).

The second theory views imagery as an instructional tool. Theorists of this viewpoint agree that the quality of mental imagery varies among individuals but that imagery can be induced and improved through the use of verbal imaging instructions (Hodes, 1992). In other words, learners can be taught to maximize the learning potentials of their inherent imaging abilities.

The following is an example of how verbal imaging instructions can be used to help a learner use imagery as a strategy to gain knowledge of a skill such as spelling:

The child is first requested to conjure up a mental picture of something to write on such as a chalkboard, writing paper or sandbox. He is then asked to visualize himself, with eyes closed, writing the letters of a word as they are being called off to him. He is instructed to try to retain the image of these letters but to report if they fade. If they fade the letters are to be repeated. If he is able to image the entire word in his mind, he is asked to call off the letters backwards, fast. If this is accomplished, then at different intervals during the day he can be asked to go back in his mind, "see" the word and call off the letters either forwards or backwards (Forrest, 1981, pg. 585-586).

Forrest (1981) suggests that the following can also be used as imagery enhancement aids:

1. Encouragement of dream recall
2. Listening to descriptive stories
3. Playing memory games
4. Watching cloud formations
5. Retaining after-images
6. All forms of drawing

Reading is so important and complex that its comprehension would amount to an understanding of how the mind works. Thompson (1991) states that imaging is a way to get a handle on the thinking process and reading is an imaging process. Thus, reading is a sense of creating images in the mind in response to the written words (Thompson, 1991). Therefore, directing imaging to improving reading and learning skills is a way to use natural mental resources more fruitfully.

In an extensive survey of primary teachers conducted by Olson (1991) to identify strategies for assisting young children to read, comprehend and learn from content area materials, imaging was identified as an effective practice.

Creating mental images of text content is recommended for improving comprehension of expository materials (Olson, 1991). More importantly, it is the teacher's modeling of the process of creating mental images that helps children acquire this ability (Olson, 1991). To do this, the teacher must describe the content of a text, talking about any associations that come to mind as it is being

read aloud. Next, the teacher can continue to read the text aloud and describe the imagery process after reading the passage. Children can be encouraged to form their own mental pictures along with the teacher, sharing their thoughts as they visualize the information. Children can then read a passage themselves and imagine the contents of the selection. Verbalizing the process to a partner helps children focus on the content of the text (Olson, 1991). Olson (1991) also states that the visual images generated in this process can help children link their prior experiences to new ideas, thus building richer schemata for the topic.

The use of imagery to improve reading comprehension is not limited to expository text. Many researchers have conducted studies examining the effect of visual imagery on reading comprehension using a variety of reading materials and situation. Following are some examples of such investigations.

Danko (1992) taught reading comprehension to fourth and fifth grade remedial reading students using visual imagery and self-questioning. Danko described the imaging process to her subjects as a “video camera in their brains” (1992, pg. 3). During the reading process, she asked her subjects to “turn it on and record” and at the completion of the text, she asked the subject to “play” what they read in their minds. The subjects were then asked to answer comprehension questions. Danko reported that comprehension of the material read had significantly improved. In addition, Danko stated that the attention to details was noticeable improved.

Bossenbroex-Schipper (1979) conducted an experiment on effects of visual imagery on the reading comprehension of third graders. The subjects in the

experimental group received instructions in the use of visual imagery; the control group did not receive any instructions. Both of the groups read a 10 page prose selection and responded to comprehension questions. In addition, one half of each group, experimental and control, were tested immediately after reading. Whereas, the remaining halves were not tested immediately but were tested at a delayed time. The results of this study showed that the use of visual imagery did not significantly affect comprehension or recall when students were tested immediately or at a delayed time without an immediate test. On the other hand the use of imagery along with an immediate test did significantly improve long term memory but not comprehension. Finally, immediate testing significantly improved both long term memory and comprehension.

Oliver (1982) directed a study on improving comprehension with mental imagery using inner-city fifth graders as his subjects. Half of the subjects involved received visual imagery instructions and the other half did not receive any instructions. Upon answering comprehension questions, it was discovered that imagery instructions improved the comprehension of better readers but had no impact upon the lower-ability readers. He hypothesizes that perhaps the lower-ability readers were too involved with word recognition to be able to focus upon the use of imagery. He suggests that visual imagery can be used to help develop word recognition skills.

Studies administered by Swanson (1984) and Whitmire and Stone (1991) reveal that Language Learning Disabled (LLD) students experience difficulty with interconnecting semantic coding with visual information, whereas good

readers are able to do this. It was discovered that LD students are able to form images or create visual coding but face a stumbling block upon the need to integrate verbal codes along with the visual information (Swanson, 1984). Whitmire and Stone (1991) discovered a positive correlation, based on an analysis of covariance, between severity of language disability and accuracy on imagery tasks. Imagery ability was found to be related more strongly to measure of semantics versus syntax. Thus, Whitmire and Stone (1991) conclude that imagery may play an integral part in language acquisition, especially in vocabulary development and nonverbal concepts. Of course it is common knowledge that good language skills are prerequisite to good reading skills.

In conclusion, Wheatley and Grayson (1991) state that learning new ideas and solving non routine problems are situations in which imagery is useful. “Imagery is an effective tool that helps us to deal effectively with new situations necessary in a changing, complex technological society” (Wheatley & Grayson, 1991, p. 35).

On the contrary, school more than any other institution, is responsible for down grading visual thinking (Wheatley & Grayson, 1991). In fact, most educators are uninterested in visual thinking (Wheatley & Grayson, 1991). But, the ability to visualize as part of the thinking process in one’s own information processing system is a metacognitive skill (Oliver, 1982). All teachers are encouraged to help children develop all metacognitive skills, essential to learning.

Retelling

Many types of learning experiences are needed to promote optimal literacy development in young children. Advocates for developmentally appropriate practices are redirecting the focus of early literacy away from workbooks and basal readers that favor separate skill components and limited vocabulary (Soundy, 1993).

The current emphasis in literacy development focuses less upon the mechanics of reading and stresses that children attain strategies that promote search for meaning (Elster, 1994; Soundy, 1993). This requires that educators depart from the traditional step by step instructions directed by instructor's manuals and utilize teaching strategies that promote students to develop the ability to express understanding of a text (Soundy, 1993). Currently, story retelling has been emphasized as an effective instructional technique to aid children's comprehension (Morrow, 1985).

Retelling is defined as the reconstruction of any kind of text (Frew, Jatón & Morris, 1989). It is the oral or written presentation of a traditional, literary or personal experience story and not a presentation of a memorized script (Zanowicz, 1996). Retelling requires students to use an organizational structure to retrieve and recall information (Blank & Frank, 1972).

Retelling can also occur in several different forms. The simplest form of retelling is present during emergent reading. During emergent reading, also called "pretend reading" children imitate adult reading behaviors (Elster, 1994).

Children, generally of preschool age, practice reading-like behaviors by retelling a story that has been read-aloud.

Retelling of this kind requires that the young children orchestrate several important sources such as pictures and print in the book, personal background knowledge and experiences about the world, language, and how stories sound (Elster, 1994). In addition, emergent readers also need to tap into their memory in order to recall the story and any discussions about the story.

A study conducted by Elster (1994) with preschool children at a Head Start Program promotes that children who participate in read aloud sessions and engage in emergent readings of favorite books grow as readers because they are engaged in authentic, holistic, literacy and not in instruction that breaks up reading into separate skills. Elster (1994) concludes by stating that practice in the holistic activity of emergent reading is good preparation for holistic conventional reading.

In conjunction with the benefits of emergent literacy and reconstruction activities, Soundy (1993) suggests retelling can be done effectively with the use of props.

Props can be an array of graphic devices such as flannelboard accessories, puppets or cutouts. After reading a story, the teacher models retelling the story using the appropriate props. Next the students, in small groups, use the props to retell the story in their own words (Soundy, 1993). Soundy (1993) promotes that props provide a sensorial approach to assist young children in constructing, expressing and understanding stories. A great deal of oral language

will also be stimulated as children manipulate the props and tell their own versions of the story.

In a study conducted by Brown (1975) children were involved in a retelling activity in which they arranged pictures of a story in sequential order. Brown (1975) defines reconstruction (retelling) as children's thinking about the individual story events and arranging pictures of the story in sequential order. Brown (1975) suggests that by mentally reconstructing the events of the story independently and arranging pictures, children build an internal representation of the story. Thus, comprehension is facilitated when children are actively involved in the reconstruction.

Frew, Jaton and Morris (1989) utilized retelling to offer students experiences in reading and writing different types of texts. For example, students working with the researchers were asked to read various tall tales. Following the reading, students were asked to retell the tall tale orally to the researchers and also to peers. Next, these students were asked to write their own tall tale.

Frew, Jaton and Morris (1989) noted that retelling provided the students with opportunities to walk in another writer's shoes. It allowed them to absorb particular words, phrases and elements of writing style and then reproduce them in their own writing. Therefore, the students felt better equipped to write their own tales. In retelling sessions, students were able to read, write and discuss in purposeful ways (Frew, Jaton & Morris, 1989).

Regardless of the method of retelling advanced, many teachers view retelling as being very time consuming and also difficult for children to perform

(Morrow, 1985). Thus researchers have conducted studies to promote retelling as an effective instructional strategy aimed at improving comprehension.

In 1985, Morrow conducted a study aimed at discovering if engaging in retelling could improve kindergartners' comprehension of stories. This study employed 59 kindergarten students enrolled in a public school district.

There were 29 children in the control group and 30 in the experimental group. Both groups listened to a story during their regular story time. Following the reading, a brief discussion on the children's favorite parts of the story was held. Next, the children in the control group were asked to draw a picture about the story. The children in the treatment group retold the story on a one to one basis to a researcher. Finally, both groups were asked to answer comprehension questions about the story. The results indicated that the difference between the two groups was relatively small.

Morrow (1985) stated that many of the children did not know how to approach the retelling task. They had difficulty beginning stories, ending stories, left out many details, and sequencing was also a problem. Therefore, Morrow hypothesized that children needed guidance to help them learn how to retell and also required frequent practice in retelling.

Upon completing her first study on retelling, Morrow (1985) conducted a second study. This time she sought to discover if children are provided guidance and practice in retelling whether comprehension can be improved.

This study employed 17 kindergarten classrooms located in both urban and suburban public school districts, for a total of 82 subjects. In this second study, the children in the experimental group worked with adults who helped them to learn how to retell and were provided frequent retelling opportunities over an eight-week period. On the other hand, the control group did not receive any guidance or practice.

According to Morrow (1985), well formed retellings include story structure elements such as setting, plot episodes, statement of problems and solutions. Thus, the adults working with the experimental group focused on helping these students include structural elements in their retellings. It was noted that children between the ages of four and six are able to include settings, beginnings and outcomes (Morrow, 1985).

The procedures in this second study conducted by Morrow (1985) followed the same format as in her first study. The results of this second study noted that the experimental group showed significant improvement in comprehension. In addition, the retellings during this second study were more accurate, offered greater detail and included elements of story structure and sequencing. Morrow (1985) also indicates that there was an improvement in oral language complexity.

Similarly, in a study conducted by Gambrell, Pfeiffer and Wilson (1985) using fourth grade students supported that children who engage in retelling practice perform significantly better in reading comprehension than other children. In addition, Kapinus (1986) examined the effect of retelling practice on

comprehension for both proficient and less proficient readers. The subjects in this study read a story (level of story was relative to ability) and practiced retelling them into a tape recorder. This process was followed four times. At the conclusion of each session, subjects answered comprehension questions. The four sessions resulted in improved reading comprehension for both proficient and less proficient readers. Moss (1990) conducted a similar study using expository text and also found positive results.

Mistry, Jayanthi, Herman and Hanna (1991) also examined the role of retelling practice with preschool children. They evaluated story retellings of children from a preschool program emphasizing early literacy activities with the retellings of children similar in age and socioeconomic background but without experience in the preschool program. They discovered that the retellings of the subjects involved in the preschool program were significantly better than those of their counterparts. The retellings of this experimental group offered greater cohesiveness and also included story elements. Therefore, the researchers conclude that it is important to begin retelling activities at the preschool and kindergarten levels.

Thus far, the studies cited have focused on establishing retelling as an effective strategy to improve reading comprehension but the benefits of retelling are not limited to this singular aspect.

In 1986, Morrow sought to determine if frequent story retellings with guidance from adults could improve kindergarten childrens' use of instructional elements in dictations of original stories and increase oral language complexity.

Results of this study indicate that frequent practice and guidance in story retelling has a positive effect on improving children's oral dictation of original stories. There was an increase in the use of structural elements and also an increase in the complexity of language used in original dictations.

More importantly, Morrow (1986) reported enlightening anecdotal information in regards to retelling. Teachers involved in the study noticed that the groups of students that participated in retelling enjoyed partaking in storytelling activities during free-play periods. They also created and told imaginative stories to other children often initiated role playing based on stories. Finally, the teachers declared that these students also demonstrated an ability to approach retelling and comprehension tasks with confidence and with a desire to perform.

In conclusion, research offers empirical and anecdotal support for the educational value of having children retell stories. Therefore, children should receive training and practice in retelling stories so that benefits can be optimized.

Summary

Reading is so important and complex that its comprehension would amount to an understanding of how the mind works. Being able to read proficiently is vital for survival in our current society. Thus, reading can offer a world of opportunities and not reading can destroy lives.

School, more than any other institution is held responsible for producing able readers. Therefore, educators must strive to implement programs and strategies that will help to promote and advance literacy.

It is important to note that the goal of reading is to achieve understanding. Both visual imagery and retelling have proven to be effective in aiding comprehension. The optimal utilization of these two strategies may result in producing better readers. As mentioned, our society requires competent and literate individuals.

CHAPTER III

The Research Design

Purpose

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story without verbal imaging instructions.

Question

Are there any statistically significant differences in kindergartners' abilities to retell a story when they are given verbal imaging instructions as compared to retelling a story without verbal imaging instructions?

Null Hypothesis

There will be no statistically significant difference between the mean scores of the retelling without verbal instructions and the retelling with verbal instruction.

Methodology

Subjects

The subjects of this study were twenty-six kindergarten children, fourteen girls and twelve boys. The subjects were enrolled in a full-day kindergarten program in an urban school district in Western New York. The study took place

in the spring of the kindergarten year when the mean age of the children was 5.7 years. The same subjects participated in both the experimental and control situations.

It is important to note that the subjects in this study had engaged in various retelling activities, including role playing, sequencing pictures of a story, oral recall and retelling with props, through-out the year. They had also received instructions on identifying structural elements of stories.

Materials

The chapter book, Charlotte's Web by E. B. White was used as the read aloud in this study. This book was chosen for two important reasons. First, the subjects had recently participated in thematic units on farm animals and insects and spiders. Charlotte's Web nicely integrated the concepts studied in these two units. Secondly, Charlotte's Web has limited illustrations and uses very descriptive language allowing subjects opportunities to form visual images. It also included the necessary structural elements. Chapter Three was used for the control condition and Chapter Five was used for the experimental condition. These chapters are comparable in length and complexity.

In order to be able to efficiently measure the accuracy of recall between the experimental and control situations, the children's retelling was prompted. A set of questions aimed at guiding retellings was used. This guide sheet was adapted from Morrow's (1985) research. The guide sheet consisted of five questions. All of the questions focused on recalling structural elements (see Appendix A). The students were given two points for a full answer, one point for

a partially correct answer and zero for incorrect or the absence of any answer. A tally of total points earned was calculated, maximum being ten.

Procedures

Step One - Day 1

The subjects were introduced to the book Charlotte's Web. The term chapter book, in comparison to picture books, was defined for the children. The subjects were also informed that this book contained minimal illustrations.

Next, the researcher posed the question "What can we use to help us to picture what is happening in this story?" The subjects responded with various answers including to use their imaginations. A brief discussion was held prior to reading Chapter One to help the subjects tap into their schema. During the pre-reading discussion, structural elements of stories were reviewed, knowledge about farm life and animals were examined, unusual vocabulary found in the chapter were defined and the subjects made simple predictions.

At this point the researcher read the chapter aloud. Upon completion, the researcher and the subjects participated in a shared retelling of this chapter, placing emphasis on identifying structural elements.

Step Two – Day 2

The researcher read Chapter Two of Charlotte's Web. Again, pre-reading activities were held to help the subjects to focus and listen attentively. The subjects participated in one additional activity prior to this reading. The researcher demonstrated how to use visual imagery.

First, the researcher told the subjects that each individual's mind has the ability to make pictures, the students were asked to close their eyes and visualize the object named by the researcher. For example, objects such as a bed, ice cream cone, favorite toy was named. Students were asked to verbalize if they were able to visualize the objects named. The response was generally positive. Thus, the researcher asked to students to "make pictures in their mind" about the story being read aloud as they listened to Chapter Two. At the end, a whole group retelling was done.

Step Three – Day 3

The researcher read aloud Chapter Three of Charlotte's Web. The subjects again participated in a pre-reading discussion. It is important to note that this time visual imagery was not mentioned during the discussion. The subjects did not receive any prompting or instructions to use visual imagery. At the end of the chapter, the students did not participate in whole group retelling. Instead, two students (chosen at random) were asked to state their favorite part of the chapter.

Immediately following the reading, the subjects were asked to work with the researcher, on a one to one basis, and to retell the story they just heard. The researcher administered the guided retelling questions (Appendix A) to each subject and documented the answers stated. The answers were later scored.

Step Four – Day 4

The students listened to Chapter Four. They participated in prereading discussion and were informally reminded to try to visualize during the reading. After the reading, the subjects participated in retelling as a whole group.

Step Five – Day 5

The students participated in prereading discussions and were given verbal imaging instructions. The researcher stated the following:

Today, when I read-aloud Chapter Five, I want you to make pictures in your mind about the story as you are listening. This will help you to understand the story better and will also help you to remember more. You may close your eyes while I am reading if it helps you to see the pictures in your mind better.

The researcher read Chapter Five aloud. Upon completion the students did not participate in whole-group retelling activities. Instead, two students were asked to share their favorite part of this chapter.

Immediately following the reading, the subjects were asked to work with the researcher, on a one to one basis, to retell the story they just heard.

The researcher administered the guided retelling questions (Appendix A) to each subject and documented the answers stated. The answers were later scored.

Analysis of Data

The results of retellings with verbal imaging instructions as compared to retellings without verbal imaging instructions were statistically analyzed through the use of a t-test.

Summary

Twenty-six kindergarten children listened to chapters one, two, three, four and five from the book Charlotte's Web by E. B. White. Prior to listening to chapter three, the students did not receive any verbal imaging instructions. After listening to this chapter the subjects were administered guided retelling questions. Whereas, prior to listening to chapter five the students received verbal imaging instructions. After listening to this chapter the subjects were administered guided retelling questions. The retellings were scored and analyzed.

CHAPTER IV

Analysis of Data

Purpose

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when given verbal imaging instructions.

Findings and Interpretations

Question: Is there a statistically significant difference in kindergartners' abilities to retell a story when they are given verbal imaging instructions as compared to retelling a story without verbal imaging instructions? The difference between retelling with verbal imagery and retelling without verbal imagery was calculated with a t test for matched groups. The results are shown in the Table.

Table Retelling Scores for Retelling without Verbal Instructions and Retelling with Verbal Imaging Instructions

Subject	Score for Retelling Without Verbal Imaging Instructions (X_1)	Score for Retelling With Verbal Imaging Instructions (X_2)	Differences in Scores ($X_1 - X_2$) = D_i	D_i^2
1	4	5	1	1
2	0	2	2	4
3	9	9	0	0
4	6	9	3	9
5	8	9	1	1
6	3	4	1	1
7	8	9	1	1
8	3	9	6	36
9	9	9	0	0
10	7	9	2	4
11	7	10	3	9
12	5	7	2	4
13	9	9	0	0
14	6	9	3	9
15	1	4	3	9
16	5	9	4	16
17	8	9	1	1
18	1	8	7	49
19	8	10	2	4
20	7	8	1	1
21	6	9	3	9
22	7	8	1	1
23	5	9	4	16

Table Continued

24	8	8	0	0
25	1	5	4	16
26	8	9	1	1

$$t_{\text{observed}} = \frac{\sum D_i}{\sqrt{\frac{N(\sum D_i^2) - (\sum D_i)^2}{N-1}}}$$

$N = 26$
 $df - N - 1 = 25$
 $\sum D_i = 56$
 $\sum D_i^2 = 202$

$t_{\text{calculated}} = 6.09$

A calculated t score of 6.09 were the results of the analysis. Since the critical value of t with 25 degrees of freedom at 95% confidence level is 2.060, the null hypothesis must be rejected. Therefore, there was a statistically significant difference between subjects' retelling of a story when they received verbal imaging instructions as compared to when no verbal imaging instructions were given.

CHAPTER V

Conclusions and Implications

Purpose

The purpose of this study was to determine if there was a statistically significant difference in kindergartners' abilities to retell a story when they were given verbal imaging instructions as compared to retelling a story without verbal imaging instructions.

Conclusions

The human mind is truly an amazing structure. Man's desire to understand how the mind works probably dates back to the beginning of time. Although much progress has been made in this area, the capabilities of the human brain seem limitless and never cease to amaze us. Regardless, humans must always strive to increase their knowledge about the brain and its functions because after all, it is Man's most valuable natural resource. In addition, it is essential that we capitalize on the findings that have been established.

Visual imagery is a natural function of the mind. Almost everyone possesses the ability to form visual images but not everyone elects to utilize it as a strategy to improve learning.

This lack of usage is due largely to the fact that most students are not instructed to utilize this natural ability. The results of this study indicated that when students are instructed to consciously utilize visual imagery, through verbal imaging instructions, the ability to retell a story was significantly enhanced.

It is important to note that regardless of ability or developmental level almost every subject showed improvement in retellings. The amount of increase was relative to the ability or development of the individual student. Thus, all students can be taught to use visual imagery as a learning tool. More importantly, the researcher observed that the students appeared to be motivated and felt at ease about allowing themselves to apply imagery.

Implications for Research

1. Studies comparing sequential retellings of children who receive verbal imaging instructions compared to sequential retellings of children who do not receive imagery instructions.
2. Longitudinal studies comparing the retelling abilities of students who continuously receive instruction in utilizing visual imagery, as a learning tool, compared to students who do not receive such instruction.
3. Studies comparing gender differences in imaging utilization.
4. Studies comparing the role of visual imagery instructions in kindergartners' abilities to retell a story read to them from a book, as compared to a story told orally (storytelling).
5. Studies examining of visual imagery instructions upon student's creative writing abilities.

Classroom Implications

The classroom teacher today is faced with many dilemmas including the burden of having to teach an increasing amount of material in a very limited

period of time. This requires the classroom teacher to carefully prioritize and maximize valuable instructional time.

One way that the classroom teacher can increase productivity is by teaching students learning strategies in addition to academic skills. When students are taught how best to learn then they are allowed the opportunity to become more aware of metacognitive functions and are also encouraged to take more responsibility for their own learning. Thus, the amount and the quality of learning can increase.

Although initially the teaching of learning strategies may require some additional time, it is only a temporary set back. Once the students have gained these strategies the benefits will outweigh the costs. Also, learning strategies are not limited to academic situations, students may extend such knowledge into other aspects of their lives.

Teaching students to use visual imagery can be considered a learning strategy. Students already possess the ability to form images. The educator's role is simply to encourage the students to actively use this natural resource. This can be achieved through modeling and by verbal imaging instructions.

Teaching students to use visual imagery is very cost effective. It does not require elaborate teacher's manuals, or student workbooks. It simply requires educators and students to believe in the process and to actively use it. The time required to activate this process is minimal and the benefits limitless. Thus all educators are encouraged to provide such opportunities for their students.

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Appendix A

Guided Retelling Questionnaire

Control or Experimental

Chapter _____

Place 2 points for complete answers, place 1 point for partial answers, and 0 points for no answer or incorrect answer. The total maximum score is 10.

① Who were the main characters in this chapter? _____

② When did the story in this chapter take place? _____

③ Where did the chapter take place? _____

④ What was the problem in this chapter? _____

⑤ How was it solved? _____

DEFINITIONS

Imagery - The art of making images: Mental images: The products of imagination.

Imagining - It is the action of experiencing perceptual information. It is the seeing of something in the mind when there is no corresponding external stimulus.

Information Processing - Involves the integrated action of many systems & subsystems to process stimulus.

Linguistic System - The use of internal and external verbal language for labeling, categorizing and communicating. This process uses words.

Perceptual - Of relating to or involving sensory stimulus as opposed to abstract concept.

Pictorial System - Mental action that uses visual images. It is known as "internalized" seeing or vision without input.

Retelling- Oral or written presentation of traditional, literary or personal experience story (not presentation of memorized script).

Story Structure Elements – Setting, plot episodes, characters, statement of problems and solutions.

Visual - The use of vision for gaining understanding and knowledge.