The Effects of the Directed Reading Thinking Activity on Second Grade Reading Comprehension

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THE EFFECTS OF THE DIRECTED READING THINKING ACTIVITY ON SECOND GRADE READING COMPREHENSION

by

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ABSTRACT

The purpose of this study was to investigate the relationship of reading comprehension scores in a second-grade classroom where reading instruction was provided using the traditional Directed Reading Approach (DRA), to the reading comprehension scores in a second-grade classroom where reading instruction was provided using the Directed Reading Thinking Activity approach.

Much of the reading instruction being provided in elementary schools across the country is textbook-centered. Teachers typically use the textbook questions suggested in the teacher's edition of the book to check for students' understanding of the text. Rarely, however, are students actually being instructed in the strategies and skills necessary to comprehend what they have read.

Since reading text with comprehension is the main goal of reading instruction, teachers must instruct students in how to build comprehension through the direct instruction of comprehension strategies. Research has shown that effective reading comprehension instruction involves both the teachers and the students in an active, on-going pursuit of meaning construction. Unfortunately, traditional, text-centered classrooms do not provide direct instruction in the very skills and strategies necessary for students to learn how to comprehend text. Reading experts agree that a systematic and research-based instructional approach that directly and explicitly teaches students the skills/strategies necessary to comprehend text is necessary if students are to comprehend what they read. The DRTA strategy is one such approach, built around the core components of direct, explicit reading comprehension instruction.
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CHAPTER ONE

The Problem

In a majority of classrooms today, reading instruction is text-centered and does not provide for direct comprehension instruction. In these classrooms, teachers typically use textbook questions to check for students' understanding of text, but rarely teach students the strategies and skills necessary to comprehend what they have read (Durkin, 1979; Pearson, 1987).

Most textbooks still follow the traditional Directed Reading Activity developed in 1946 by Betts (Reutzel & Cooter, 1996). This traditional approach involves using the basic question/answer pattern to reading instruction, but does not provide for explicit teaching of comprehension skills and strategies. The production of accurate responses to textbook questions has received much attention when the main focus should be placed upon the comprehension process (Yeung, 1991). An inadequate amount of time, then, is spent on comprehension assessment in most classrooms today.

Importance of the Study

It is widely accepted that reading is the process of constructing meaning from written words. As such, reading is a holistic act that takes place only when all of the
necessary components are put together in a smooth, integrated performance (Anderson, Hiebert, Scott, & Wilkinson, 1985). Since reading text with comprehension is the ultimate goal of reading instruction, teachers must show students how to build comprehension through the direct instruction of comprehension strategies. Research on reading and acquiring meaning from text has greatly expanded the understanding of what is required of a reader in order to gain meaning from text. In this holistic act of reading, it is the reader who actually constructs the meaning. In order for comprehension to occur, then, reading must be strategic.

Reading comprehension is a strategic and interpretive process of making connections between ideas in a text and ideas in a reader’s mind. Classroom instruction must be designed to address the learner’s needs for assistance in making these connections (Koppenhaver & Erickson, 1998). Children’s reflective control of text can be improved through direct instruction in comprehension strategies. Discussions and activities of this sort should be conducted with a variety of literary genres and be a regular part of the language arts curriculum throughout the children’s school years (Adams, Treiman, & Pressley, 1996). Teachers must directly instruct students in the strategies necessary for comprehension building if students are to be successful readers.

Research has shown that successful readers are skilled, strategic, and flexible (Graves, 1994). Unskilled, immature readers usually do not/can not assess their own knowledge relative to the demands of the task. These unskilled readers are also unable to monitor their own comprehension and to implement fix-up strategies when
their comprehension fails (Anderson, et al., 1985). Effective reading comprehension instruction involves teachers and students in an active pursuit of constructing meaning from text (Reutzel & Cooter, 1996). Traditional text-centered classrooms do not provide direct instruction in the skills and strategies necessary for students to truly learn how to comprehend text. Students having difficulty comprehending text will also experience difficulty in comprehending and understanding content area concepts. Much of a student's success in school is determined by his/her ability to gain meaning from the written word.

**Background of the Problem**

Teachers must become far more proactive in providing actual reading comprehension instruction to their students. However, some of the more current trends in reading and language arts education have been shown to have an opposite effect. In one trend associated with the process writing and whole-language movements, Calkins (1986) and Pearson (1990) described a movement that has undermined the teacher's role in teaching reading comprehension. In an effort to respect the choices and interests of individual readers and writers in the classroom, many teachers have been falsely led to believe that they should not take an active role in directing students' learning. These teachers are fearful of taking ownership for the students' learning, so they tend not to intervene.

Experts emphasize the importance of a systematic and research-based instructional approach to reading that is aimed at giving students control as they learn
to read (Anderson, et al., 1985). In 1995, California issued a report from the Reading Task Force appointed by the State Superintendent of Public Instruction. This report recommended a return to balance in the way reading is taught. It also recognized the importance of a direct approach to reading comprehension instruction.

Recommendations were made in this report, that good comprehension instruction should include teacher-directed instruction in comprehension that includes both modeling and guided practice of strategies such as summarizing, predicting, and using the structural elements of text, and opportunities for discussing what was read with the teacher and peers (Yopp, Adams, & Pearson, 1995).

A comprehensive synthesis of reading comprehension instruction research found that effective reading comprehension lessons share five common steps: 1. The lessons develop or activate student background knowledge for the text to be read and discussed; 2. The lessons set a purpose for student reading; 3. Students read for the determined purpose; 4. Students engage in a task that demonstrates successful achievement of the purpose set; and, 5. The lessons provide informative feedback to assist students in understanding the strategies and processes engaged in to achieve the purpose and comprehend the task (Tierney & Cunningham, 1984; Knuth & Jones, 1991; Yopp, et al., 1995).

One way that background knowledge activation and development can be built into the initial reading of texts is the use of the Directed Reading Thinking Activity, developed in 1969 by Russell G. Stauffer. Dramatically different from the Directed Reading Activity followed in basal textbooks, the Directed Reading Thinking
Activity offers one way that background knowledge activation and development can be built into the initial reading of texts. The DRTA, intended to develop students’ ability to read critically and reflectively, involves using a three-step process towards greater reading comprehension. Students are guided through the process of sampling text, making predictions based upon prior knowledge and textual information, resampling text, and confirming or adjusting predictions in light of new information. The Directed Reading Activity (DRA) is a traditional approach to teaching reading and reading comprehension that involves the basic question/answer pattern that was developed in 1946 by Betts and is still commonly used today.

Statement of Purpose

The purpose of this study is to investigate the effect of the Directed Reading Thinking Activity (DRTA) on reading comprehension in second grade readers at the D Street Elementary School in Needles, California. The classrooms used in this study each contained twenty students, and were chosen because of the fact that they differ in the method used to teach reading and reading comprehension: one teacher implements the DRTA approach to reading instruction, while the other teacher follows the traditional DRA approach to reading instruction.

More specifically, this study will:

1. Utilize the nonprobability sampling technique, convenience sampling, using two, pre-selected classrooms in an elementary school.
2. Study the reading comprehension scores for students from two separate second grade classrooms at the D Street Elementary School in Needles, California: the teacher in one classroom teaches reading using the traditional, text-centered Directed Reading Activity (DRA) method, and the teacher in the other classroom teaches reading using the Directed Reading Thinking Activity (DRTA) approach.

3. Follow the design typical of causal-comparative research: two comparison groups will be used that differ on the independent variable (DRTA) and comparing them on the dependent variable (reading comprehension).

4. Compare test scores obtained from the Stanford 9 Achievement Test, Primary 2 (1996) in one second grade classroom where the teacher implements the DRA approach to reading instruction, to the test scores obtained in another second grade classroom where the teacher implements the DRTA approach to reading instruction.

5. Analyze the test data to determine the mean.

6. Perform the t test to compare the mean on the dependent variable (reading comprehension).
Definition of Terms

The following terms will be used throughout this study and are defined below to aid the reader in the understanding of this study:

**Reading Comprehension** – The process of constructing/gaining meaning from written words.

**Directed Reading Activity (DRA)** – The traditional, text-centered approach to teaching reading. This approach involves using the basic question/answer pattern to reading instruction. The approach does not provide for explicit teaching of comprehension skills and strategies and typically relies upon texts and/or workbooks.

**Directed Reading Thinking Activity (DRTA)** – A strategic approach to teaching reading and reading comprehension intended to develop students’ ability to read critically and reflectively, this approach was developed in 1969 by Russell G. Stauffer. The approach involves using a three-step process towards greater reading comprehension. Students are guided through the process of sampling text, making predictions based upon prior knowledge and textual information, resampling text, and confirming or adjusting predictions in light of new information.

**Metacognition** – Process of thinking about and regulating one’s own learning.

**Basals** – Traditional reading textbooks used to teach reading in schools.
Think-Aloud - A reading strategy that explicitly teaches the necessary strategies of metacognition through verbal explanation, teacher modeling, guided practice, and independent practice.

Limitations of the Study

The major weakness of this study stems from the use of the nonprobability sampling technique, convenience sampling. The use of this technique has taken away the randomization in the sampling. Since the groups used already exist and they were selected conveniently, not randomly, it can not be assured that the classes are representative of any other second grade classroom.

The possibility also exists that the groups are different on some other major variable besides the identified independent variable (DRTA) and that it is the other variable that is the real cause of any difference between the two groups.

The results of this study, then, can not be generalized to other classrooms that may be different from those used in this study. This study should, however, easily allow for replication using other sampling techniques that may make the results more easily generalized to other second grade classrooms.
CHAPTER TWO

Introduction

A review of the literature reveals that a significant shift in thinking about what people do as they read has occurred in the past 20 years. At one time, little effort was made to actually teach the process of reading comprehension. It was believed that once readers could decode accurately and fluently, comprehension would automatically follow. After this assumption proved to be untrue, efforts to improve reading comprehension focused more on the product than on the process (McNeil, 1987). Reading is now viewed as a transactive process in which meaning is created by the reader (Weaver, 1994). The focus of this chapter will be to examine and understand that the main goal of reading is comprehension and in order for comprehension to occur, readers must employ certain strategies during the reading process. The strategies necessary for reading comprehension to occur can and should be taught to the reader to insure successful comprehension.

First, background information and research on reading comprehension will be presented. Information will also be presented to explain reading as a transactive, strategic process requiring schemata activation. Next, research supporting the necessity of direct reading comprehension instruction will be discussed. In particular, research studies on the Directed Reading Thinking Activity will be presented. Finally, information on the California Reading Initiative of 1996 will be presented and its relationship to the DRTA will be discussed.
Reading as a Transactive Process

Meaning is created, then, through the transaction between readers and what they are reading. As a person reads and responds to the text being read, the reader goes through the process of a series of stages by constructing interpretations – known as comprehension. During this transactive process of reading, the meaning is negotiated by the reader in order to comprehend. This negotiation, according to Weaver (1994) is shaped by numerous factors: the reader's knowledge about the topic; the reader's purpose for reading; the language community the reader belongs to, and how closely that language matches the language used in the text; the reader's culturally based expectations about reading; and the reader's expectations about reading based on his or her previous experience.

Au and Mason (1986) state that the background knowledge readers bring to the act of reading is what allows them to "grasp the soul" of the words, or to gain meaning. The reader must construct meaning from the text; to do so, the reader must use knowledge of the world as well as knowledge of the text. The reader draws upon the background knowledge, or schemata, already in his or her own mind. Reading is a highly complex mental activity and can be said to take place only when all of the required components are put together in a smooth, integrated performance. Reading, then, is a constructive process during which the reader makes meaningful connections among ideas in a text and to background knowledge.
**Reading as a Strategic, Metacognitive Strategy**

In order for readers to make meaning from the text they are reading, their schemata must be activated. The background knowledge the reader brings to the reading situation about the book or topic is referred to as schemata. Several studies have indicated that dividends in reading comprehension were achieved by using instructional time to build background knowledge (Anderson, et al., 1985). Readers also need to have a purpose for reading in order to be successful when reading. To say that reading is strategic means that the processes can be adjusted depending on the reader's purpose at that time. When a reader has an established purpose for reading, the comprehension of the reading is enhanced; the purpose serves to guide the reading process that students use. This purpose gives direction and provides motivation as well as providing the reader with a tool to use for monitoring their own reading. As a student reads with an established purpose, sorting important from unimportant information is an easier task (Blanton, Moorman, & Wood, 1990).

Mature readers are able to read for purposes that they are able to set for themselves. Since reading is a strategic process, it includes the monitoring of comprehension to determine if the set purposes are being met (Au & Mason, 1986). Comprehension monitoring during reading includes the reader being aware that meaning is being constructed and that set purposes for reading are being met. In contrast, immature readers usually do not monitor their own comprehension processes while reading and are unaware that meaning is not being constructed. Effective, mature readers, unlike poor, immature readers, are aware of what they are doing as
they read and of what they need to do to meet their set purpose(s). This awareness of one's own mental activity is referred to as metacognition.

**Direct Reading Comprehension Instruction**

Anderson, et al., (1985) stated that research shows that whether children will make rapid or slow growth towards becoming a skilled reader depends upon the content and method of their reading instruction. They feel that children should not be left guessing about how to comprehend. Existing evidence suggests that direct instruction in reading comprehension produces gains in reading achievement beyond those when less direct means are used (Anderson, et al., 1985). Effective comprehension instruction targets the process of constructing meaning from the text, rather than the product.

Higher order thinking skills and effective reading comprehension strategies can be taught and should be featured prominently in the curriculum (Brown, 1985). Significant improvements in reading comprehension and critical thinking skills can be achieved by using instructional procedures that introduce strategies as they are needed, in the context of actually understanding text, where the strategies are modeled over time, and where the student has control of strategy production. These instructional procedures produce long-lasting, significant improvements in reading comprehension scores (Brown, Campione, & Day, 1981). Higher order skills of comprehension, interpretation, and application are rarely explicitly taught, but they can and should be taught (Brown, 1985).
The state of reading comprehension instruction in public school classrooms was investigated by Dolores Durkin in 1978. Durkin concluded that teachers spent very little time actually teaching children how to comprehend text. She found that less than 1% of the total reading time was devoted to the teaching of how to get meaning from text — reading comprehension. Durkin concluded that teachers apparently did not differentiate between the concepts of testing reading comprehension and teaching reading comprehension. Durkin felt that much of this confusion was a result of using nationally published basal reading series. She felt that basals did not differentiate between the concepts of testing reading comprehension and teaching reading comprehension, therefore, teachers using those basals were unable to differentiate between the two concepts, as well. Dolores Durkin then defined comprehension instruction as helping, assisting, defining, demonstrating, modeling, describing, explaining, or otherwise guiding students’ efforts to construct meaning from text.

Durkin conducted another study in 1981 in which she investigated comprehension instruction found in five nationally published basal reading series. Again, her conclusions supported her earlier study. Basal teacher’s manuals did not offer guidelines/suggestions about how to teach children to comprehend text; instead, they offered reading comprehension assessment activities mislabeled as instruction. The studies conducted by Durkin make a strong case for active teacher involvement in the actual instruction of reading comprehension. Anderson, et al., (1985) stated that research shows that teachers are relying on basal teacher manuals and that many
are poorly crafted, focusing attention on trivial, unfocused, unimportant details. Therefore, these manuals are not adequately preparing or teaching children to comprehend.

More recent research showed that basal readers were being used daily in 92%-98% of classrooms in the United States (Flood & Lapp, 1986; Reutzel, 1991). It is believed that because basal readers have played such an integral role in the reading instruction in the United States for centuries, the basal readers will continue to play such a role well into the future (Reutzel, 1991). Basal readers, then, play an integral role in the shaping of the reading instruction in our classrooms.

Most basal readers follow the Directed Reading Activity (DRA) format that was originally developed in 1946. This DRA method consists of six discrete parts to each reading lesson: 1. building background and vocabulary, 2. introducing/setting purposes for reading, 3. guided reading, 4. comprehension discussion (questioning), 5. skill instruction/practice (workbook), and 6. enrichment. Dolores Durkin (1981) found that these lessons failed to actually teach reading comprehension strategies and skills, but instead, provided numerous assessment activities mislabeled as instruction.

Reutzel & Cooter (1996) do not feel that the basals of today provide enough direct comprehension instruction. Due to the lack of direct instruction, they recommend the application of a direct or explicit instruction model to basal skills lessons to improve reading skill instruction since research has demonstrated strong correlations between student achievement and the use of direct instruction procedures. They are not suggesting, however, that the reader be unengaged during
this procedure. This teaching of skills before reading allows the reader to apply those skills during the actual act of reading. They stated that teachers must vigorously engage in instructional processes that reveal for students the secrets of successful comprehension. Teachers should feel an ethical obligation, they state, to share secrets of their own successful reading comprehension with students, as well as how to monitor and repair comprehension when it fails to take place.

**Directed Reading Thinking Activity**

The use of prior knowledge and prediction is clearly of great value in helping students set purposes for reading and use their own experiences as a basis for comprehending text (Pearson, 1985). Prior knowledge and prediction is utilized in the Directed Reading Thinking Activity (DRTA) developed in 1969 by Russell Stauffer. The DRTA is intended to develop students’ ability to read critically and reflectively and is fundamentally different from the DRA used in basals. The DRTA attempts to equip readers with the ability to determine purposes for reading; the ability to extract, comprehend, and assimilate information; the ability to examine reading materials based upon purposes for reading; the ability to suspend judgments; and, the ability to make decisions based upon information gleaned from reading (Stauffer, 1969; 1975).

Stauffer (1969; 1975) based his notions upon the belief that reading is a thinking process involving the reader in using his or her own experiences to reconstruct the author’s ideas. This begins with the generation of hypotheses based
upon the reader's doubts and desires. It continues with the reader's acquisition of information and the generation of further hypotheses during reading. Then, the reconstruction terminates with the resolution of the reader's doubts and desires (Dishner, Readence, & Tierney, 1985).

Using the DRTA technique, students are guided through the process of sampling text, making predictions based upon prior knowledge and textual information, resampling text, and confirming or adjusting predictions in light of new information. This model has received increasing attention in recent years as teachers and researchers search for improved methods of increasing reading comprehension. This approach is frequently identified as an exemplary instructional activity for developing comprehension and critical thinking skills (Anderson, 1984; Tierney & Pearson, 1986).

The DRTA can easily be adapted for any selection and any level of difficulty and may be used for both group and individual use (Vacca & Vacca, 1996). When used with groups, Stauffer (1969; 1975) suggests using it with between eight and twelve students. However implemented, the DRTA offers several important advantages to students and teachers. First, it increases comprehension through its strong emphasis on student-generated prediction, speculations, and conclusions, which are based on and grow from prior knowledge and experience. The DRTA highlights related experience and encourages the consistent use of the reader's prior knowledge during reading. Secondly, the DRTA establishes a positive instructional environment: a general sharing of background information and experience is invited.
as students and teachers move toward the common goal of understanding. The end results of use of the DRTA are active, engaged students, discussions with depth and texture, and students who assume responsibility for their own learning (Haggard, 1988).

**DRTA Research Studies**

Large amounts of high-quality, direct instructional strategies that serve to put the focus first on meaning are necessary to help children learn to comprehend text (Cunningham & Allington, 1996). Similar to the DRTA, the Think-Aloud strategy explicitly teaches students what the strategies of metacognition are through definition, description, and examples. As part of the Think-Aloud strategy, children are told why learning the strategies is important for helping them to become better readers. The students are then taught how to use the strategies through a sequence of instruction using verbal explanation, teacher modeling, guided practice, and independent practice. A research study was conducted by Baumann, Jones, & Seifert-Kessell (1992) to investigate the effectiveness of explicit instruction in Think-Aloud as a means to promote elementary students' comprehension monitoring abilities. The subjects of this study, 64 fourth grade students, were randomly assigned to one of three experimental groups: a.) Think-Aloud group where students were taught comprehension monitoring strategies through the medium of thinking aloud, b.) DRTA group in which the students were taught the DRTA strategy of predict-verify
for reading, and c.) DRA group, the control group, in which students engaged in the
typical DRA method of noninteractive, guided reading.

The DRTA involves significant amounts of prediction. Prediction is a
strategy central to most descriptions of comprehension monitoring and is also a
component of several successful programs for teaching metacognitive strategies. The
DRTA was used, then, as the comparison intervention strategy because it involves
significant amounts of prediction.

On three whole-sample dependent measures (i.e., an error detection test, a
comprehension monitoring questionnaire, and a modified cloze test) results revealed
that the Think-Aloud and DRTA students were more skillful at comprehension
monitoring than DRA students in the results of effect of instruction contrasts. DRTA
students’ performance equaled or exceeded that of the Think-Aloud students.

The DRTA students outperformed the Think-Aloud students on the Intensity
of Instruction contrast. Prediction was the most frequently occurring behavior and
DRTA students did the most predicting of all the groups. DRA students did little to
demonstrate an awareness of or ability to engage in comprehension monitoring, while
the Think-Aloud group demonstrated/reported a variety of metacomprehension
behaviors, and the DRTA group made the most predictions.

In this study, the data clearly indicated that the use of the DRTA or Think-
Aloud training is a superior method for promoting students’ comprehension
monitoring abilities. This finding was not unexpected by the researchers since ample
research exists to support the use of cognitive strategy training as a means to enhance
comprehension monitoring abilities. It is clear to these researchers that teacher-led instruction in strategies like the DRTA and Think-Aloud are effective for developing comprehension monitoring skills.

The results on the relative effectiveness of the Think-Aloud versus the DRTA were more ambiguous, but somewhat surprising to the researchers. While results indicated that Think-Aloud students had a greater awareness of comprehension monitoring strategies than the DRTA students, the results of the whole-sample comprehension performance measures suggested that DRTA may be a more powerful strategy for promoting comprehension monitoring than the Think-Aloud strategy. The DRTA students performed better than the Think-Aloud students on the error detection test and the cloze test.

One possible explanation given by the researchers for the results is that prediction may play a bigger role in comprehension monitoring than previously anticipated. They state that it may be that intensive instruction and practice in prediction may result in enhanced comprehension monitoring abilities. The experiment demonstrated that the DRTA is an effective method for promoting students’ comprehension monitoring abilities. The researchers believe that the consistently poor performance of the DRA group reinforces the thought that noninteractive, didactic instruction fails to produce students’ comprehension monitoring abilities. Baumann, et al., (1992) concluded that teachers must engage students interactively in order to promote comprehension monitoring behaviors.
Another study, led by Kim Salch (1996), developed processes for improving the reading comprehension of third and fourth grade students. The analysis of the probable cause data showed that the students with difficulties lacked basic knowledge of reading strategies. When the school district’s curriculum and textbooks were analyzed, it was found that direct, systematic reading instruction including reading comprehension skills, were not used after the second grade. The study implemented three different categories of intervention strategies in an attempt to increase reading comprehension: development of activities for students at the prereading stage of instruction, implementation of reading strategies during reading, and contemplation and reflections after reading. These strategies were implemented through curricular modifications and teaching practice changes.

The DRTA strategy was used during reading. From October 1995 to January 1996, the course of the research time frame, it was observed that when students participated in more direct reading instruction, they used more strategies while they were reading independently. Those students were also more interested in the reading and better understood new and unusual vocabulary encountered during reading. Findings of this study, then, indicated that the implementation of the DRTA strategy dramatically improved the reading comprehension of the students targeted as having reading comprehension difficulties (Salch, 1996).

An action research study that described and evaluated a program for improving the reading comprehension of targeted first, second, and third grade students was conducted by Mary Emily Anhalt in 1995. The study arose from the
observed need for improvement in reading comprehension as indicated by teacher observation of classroom reading responses and assessments.

An analysis of the probable cause data in this study revealed that the philosophy of whole language is enriched by a balanced blend of systematic direct instruction of reading processes and comprehension processes. To improve comprehension skills, teachers must consistently implement those strategies within the curriculum as well. The researcher used a three-faceted intervention in the study: implementation of reading strategies to increase reading comprehension; creation of a reading workshop in the classroom; and, establishment of an at-home reading incentive program.

Data analyzed after the intervention period indicated an increase in reading comprehension due to the successful implementation of explicitly taught reading strategies that were also modeled by the teacher, the creation of a classroom reading workshop, and the implementation of an at-home reading program (Anhalt, 1995). While this study did not specifically use the DRTA strategy to teaching reading comprehension, it did implement the use of directly taught and modeled reading comprehension strategies consistent with those used in the DRTA.

The question of whether text comprehension strategies could be taught to children with poor reading skills was examined in a study conducted by Brand-Gruwel, Aarnoutse, and Van den Bos (1998). This study was conducted using 428 fourth grade students considered to be poor readers and 167 students from schools for the learning disabled. This study implemented the explicit instruction of reading
comprehension strategies, similar to the DRTA, in an attempt to improve reading comprehension in the participants of the study. The researchers found that clear benefits of training students to use comprehension strategies during the posttesting stage. However, the benefits of this direct instruction were not evident when maintenance testing was done. The researchers concluded, then, that these results show that a definite need does exist for more intense, prolonged instruction in these comprehension strategies to produce lasting benefits in reading comprehension (Brand-Gruwel, Aarnoutse, & Van den Bos, 1998).

**The DRTA and the Reading Comprehension Standards of Today**

Research has supported the notion that direct, interactive instruction does have a positive effect on promoting students' reading comprehension abilities (Baumann, et al., 1992). A myth exists today that students who possess reading comprehension difficulties simply can't think. The real problem is that the students simply don't think while they are reading. These students do not think while they are reading because they don't know that they should be thinking as they read. Strategies must be used that will engage students and actually teach them how to think while they are reading (Cunningham & Allington, 1996).

Vacca and Vacca (1996) list the DRTA as a framework that prepares students for reading, guides their interactions with texts, and helps them to clarify and extend meaning. They also state that the DRTA can be easily adapted to serve any subject matter material and is an important strategy for teaching reading comprehension.
strategies to today's students. Part of a comprehensive plan to aid students in greater reading comprehension must include teacher-directed, explicit approaches to teaching strategies necessary for the comprehension of text (Graves, Juel, & Graves, 1998).

Based upon the vast amount of reading comprehension research conducted in the 1980's, the DRTA (Stauffer, 1969) is still used by educators today to directly teach reading comprehension strategies to students because of the fact that the DRTA does engage students in the active pursuit of comprehension. The DRTA does teach students how to think while they are reading, and will continue to serve as a valuable strategy for teaching reading comprehension strategies into the future.

California Reading Initiative of 1996

In the fall of 1995, major newspapers in California were reporting that California's fourth-graders had scored among the lowest in the nation on the 1994 National Assessment of Educational Programs. Approximately 60% of the students tested scored at a level that indicated inability to demonstrate a basic understanding of material read. Compared to the national levels of 44%, California had 59% of its students performing below basic levels.

Along with this serious decline in reading test scores, California was also seeing an increased concern from educators and parents and a renewed interest in reading research. As a result, the State Superintendent of Public Instruction, Delaine Eastin, called for the formation of a task force on reading in May 1995. The goal of
this task force was to be responsive to the apparent crisis in the reading performance as reported in the 1994 National Assessment of Educational Programs.

This task force reviewed research materials and received expert testimony from various reading researchers and reading experts in regards to what an effective, comprehensive approach to reading must include. In the fall of 1995, the State Superintendent of Public Instruction issued a report from its Reading Task Force that called for balance in the way reading is taught. That document, titled Every Child a Reader: The Report of the California Reading Task Force (1995), laid out the current research base and listed proven practices for effective literacy instruction, particularly in the early elementary grades.

The task force drew its research from a large array of reading researchers, but especially highlighted the research performed by three respected practitioners/researchers: Hallie Yopp, Marilyn Adams, Ph.D., and David Pearson. The task force report emphasized the importance of a comprehensive approach to reading that includes both direct skill instruction and the activities and strategies most often associated with effective whole language classrooms. All of these experts emphasized the importance of a systematic and research-based instructional approach aimed at giving students control as they learn to read. It was also agreed that the direct instruction and practice of comprehending text must start early and build through the grades.

The California Reading Initiative of 1996, published by the California Department of Education, the California Education Policy Seminar, and the
California State University Institute for Education Reform, is a comprehensive strategy to reform reading instruction in the public schools so that they will be successful for as many children as possible.

The state of California used the information gleaned from its task force to create the *California Reading Initiative of 1996*. This initiative called for a comprehensive approach to reading that includes both direct skill instruction and the importance of a systematic research-based instructional approach aimed at giving students control as they learn to read. The DRTA strategy is one instructional strategy that fits well with the recommendations of the task force and can be used at any and all grade levels.

In an attempt to put the recommendations of the task force into practice, the Governor of California signed legislation, Assembly Bill 3482, on July 22, 1996 allocating 13 million dollars for the purpose of providing training in reading instruction based upon the findings of the task force. The state of California continues to work at implementing recommendations made in the initiative in an attempt to improve the reading skills of its students.

**Conclusion**

Based upon the past and current research available on the topic of direct instruction of reading comprehension strategies, I hypothesize that second grade students who are instructed using the DRTA will have higher reading comprehension scores than second grade students taught using the traditional DRA method of reading comprehension. This hypothesis will serve as the purpose of the following study.
CHAPTER THREE

Introduction

Reading researchers generally agree that reading comprehension is indeed a process that must be taught to students (Anderson, Hiebert, Scott, & Wilkinson, 1985; Adams, Treiman, & Pressley, 1996; Graves, 1994). Educators cannot assume that students do know how to think as they read, or even that they should be thinking as they read. Teachers must directly and explicitly teach students the strategies necessary to comprehend text. Definite reading comprehension strategies can and should be taught to students to enable them to effectively create meaning with the text.

The DRTA strategy of reading comprehension instruction implements direct, explicit teaching of reading comprehension strategies. In this chapter, the subjects, sampling technique, instruments, and design of my investigation will be described. Next, the procedures of the investigation will be explained, as well as the results of the investigation. Finally, conclusions will be presented based upon the analyzed data, limitations of the investigation will be listed, and plans for dissemination of the information gathered in this investigation will be shared.

Design

This investigation followed the design typical of causal-comparative research. Causal-comparative research involves an attempt by the researcher to determine the cause(s) or reason(s) for existing differences in groups. Two comparison groups were
selected, differing on the independent variable (DRTA) and were compared on the dependent variable (reading comprehension).

To control for extraneous variable, the groups were made as similar as possible on all relevant variables, other than the independent variable (DRTA). Matching was used in determining the formation of each second grade classroom to create classrooms with equal numbers of low, medium, and high ability students to the greatest extent possible. Matching was also used in class formation to create classrooms with equal numbers of boys and girls, as possible.

The groups that were selected for use in this investigation were as homogenous as possible considering the use of the convenience sampling technique. The students all resided in the same city, neighborhood, and attended the same elementary school. These students had equal access to educational resources and services since they attended the same elementary school. The students also shared similar socioeconomic backgrounds.

Subjects

Students from two second-grade classrooms at the D Street Elementary School in Needles, California served as the subjects for the investigation. These students were randomly assigned to their respective teachers based upon an equal number of low, medium, and high ability students as determined by the students previous (first grade) teacher. Each classroom contained the same number of students, ranging from 15-20, depending upon enrollment.
All of the subjects of this study came from the same city, neighborhood, and school and shared similar socioeconomic backgrounds. The subjects also had equal access to educational supplies, materials, and programs since they were enrolled in the same elementary school. The students used the same textbooks in their classrooms, as determined by the school district.

**Sampling Technique**

Since the clusters for the sample (classrooms) and the elementary school that contained the sample were pre-selected, the nonprobability sampling technique of convenience sampling was utilized. Convenience sampling is often referred to as accidental or haphazard sampling, but is the technique most often used in educational research.

While this method of sampling presents sampling bias, some advantages are gained by employing this method of sampling. Convenience sampling allowed the investigation to utilize existing groups that best fit the needs of this investigation: second-grade students in a school where one second-grade teacher utilizes the traditional basal method of reading instruction (DRA) and the other teacher uses the DRTA method of reading instruction.

Since these specific clusters (classrooms) were not selected from any larger group, it can not be assured that the classes are truly representative of any other classes or that they adequately represent the population at which this investigation is aimed.
Instruments

The instrument used to compare reading comprehension scores among the two groups used in this investigation was the Reading Comprehension section of the Stanford Achievement Test, Ninth Edition, Primary 2 (1996). This test is the primary test used by elementary schools across the state of California. This test provided scoring for four subsections of each main subject. The subsections used for the Reading section of the test included total reading, word study skills, reading vocabulary, and a reading comprehension section. The following scores were reported for each of those subsections: mean raw scores, mean scaled scores, national percentile scores, mean national curve equivalence scores, and a score for at/above the 50th national percentile. An overall, total reading score was provided along with specific scores for word study skills, reading vocabulary, and reading comprehension. This investigation focused on the raw score obtained by each student on the Reading Comprehension subsection of the test. This subsection of the test was comprised of 40 questions.

Procedure

Students in both second grade classrooms used in this investigation were instructed in reading using the same basal textbook, as determined by the school district. Each teacher implemented her normal, usual method of reading instruction at the beginning of the school year in September 1997. Throughout the school year, one teacher, Teacher A, provided the traditional basal method (DRA) of reading instruction while using the district-determined textbook. In the other second grade
classroom, Teacher B, provided reading instruction as she normally does, using the DRTA method of reading instruction. She, too, used the textbook determined by the district. Then, one teacher chose to implement the traditional basal method (DRA) of reading instruction and the other teacher chose to implement the DRTA method of reading instruction in her classroom.

Both teachers continued using their chosen method of reading instruction until April 1998. In the middle of April 1998, both teachers administered the Stanford Achievement Test, Ninth Edition, Primary 2 (1996) to the students in their classrooms. The dates of testing had been pre-selected by the school district and all classrooms at the elementary school were being tested during this time period. Test scores were not returned to the district and the teachers until August 1998.

**Data Analysis**

The raw scores of the Reading Comprehension subsection, from the Reading section, from both classes were analyzed. Scores were analyzed to determine the *mean* of the raw scores from each class. Then the *t test*, using $df = 32$, was performed to compare the *mean* on the dependent variable (reading comprehension). The probability level chosen for this study was $a = .05$, since that level is most often used in educational research.

An independent *t test* was used to compare the *mean* of the DRA group with the *mean* of the DRTA group on the Reading Comprehension section of the Stanford Achievement, Ninth Edition, Primary 2 (1996). The critical *t-value* at the .05 level was 2.042, with $df = 32$. The computed *t-value* was .952.
Results

Based on the analyzed data, the mean score of the DRTA group was higher than the mean score of the DRA group. A t value of ≥ 2.042 will be required to show significance at the selected level, $a = .05$.

Table 1

Independent t Test: Raw Scores


Reading Section

<table>
<thead>
<tr>
<th>Group</th>
<th>$N$</th>
<th>Mean</th>
<th>$SD$</th>
<th>t value</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA</td>
<td>15</td>
<td>27</td>
<td>6.265</td>
<td>.952</td>
<td>.05</td>
</tr>
<tr>
<td>DRTA</td>
<td>19</td>
<td>33</td>
<td>5.806</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

After analyzing the collected data, it is clear that the mean score of the DRTA group (33) is significantly higher than the mean score of the DRA group (27). However, based on the analysis of the data collected in this investigation, the difference between students who received the DRA instruction and the DRTA instruction was not significant at the .05 probability level. It can be concluded that there is no significant difference between the groups, since .952 < 2.042; so, $p > .05$. 
Ample data do not exist in this investigation to state that the DRTA method is probable to have been the cause of the differences in the mean score of the two different groups.

**Limitations**

The major weakness of this study stems from the use of the nonprobability sampling technique, convenience sampling. The use of this technique has taken away the randomization in the sampling. Since the groups used already existed and they were selected conveniently, not randomly, it can not be assured that the classes are representative of any other second grade classrooms. The possibility also exists that the groups are different on some other major variables besides the identified independent variable (DRTA) and that it is the other variable that is the real cause of any difference between the groups. The results of this study can not be generalized to other classrooms that may be different from those used in the study. This study should, however, easily allow for replication using other sampling techniques that may make the results more easily generalized to other second grade classes.

**Plans for Dissemination**

The results of this investigation will be shared with the principal and staff at the D Street Elementary School in Needles, California. I will also share the results and findings of this investigation with my colleagues at Beagle Middle School in Grand Ledge, Michigan.
REFERENCES


Knuth, R., & Jones, B. (1991). What does research say about reading? Center for the Study of Reading, University of Illinois, Urbana-Champaign. NCREL, Oak Brook, IL.


TO: Whom It May Concern
FROM: Dave Renquest
SUBJECT: Connie Eilar Renn
DATE: February 18, 1999

Mrs. Renn is working on a Master's Thesis in order to achieve an M.A. in Reading/Reading Specialist. The Thesis is on Directed Reading Thinking Activity. She is working closely with two teachers here at the "D" St. School-Lynn Bowles and Michelle Peters.

Her project involves a comparison of composite test scores. This will be done without student names and will NOT be a breach in confidentiality.

As always we are happy to help out Connie in any way that we can. She is an excellent teacher and we know that she will continue to do well in the profession. She has made many friends here and we enjoy keeping in touch with her.

Our support and best wishes go with her on this project.
March 22, 1999

Connie Eilar Renn
812 Forest ST.
Ionia, MI 48846

Dear Connie:

Your proposed project entitled "The Effects of the Directed Reading Thinking Activity on Second Grade Reading Comprehension" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

Paul Huizenga, Chair
Human Research Review Committee
MEMORANDUM

TO: Faculty and Staff
FROM: David A. Veneklase
Director of Staff Relations and Benefits
SUBJECT: Auto and Homeowner’s Insurance Discount
DATE: May 6, 1999

Back by popular demand!

In an effort to save you time and money, representatives from DeVries and Royston and Citizen’s will be on campus to compare your current rates to Citizen’s group rates. You can meet with the representatives at the following times and locations:

   **Wednesday May 19, 1999**  
   11:00 AM to 3:00 PM  
   Room 116, Lake Michigan Hall (Human Resources Office Conference Room)

   **Thursday May 20, 1999**  
   12:00 noon to 1:00 PM  
   Room 911, Eberhard Center

Please call the Human Resources Office at x2215 to schedule an appointment. The appointment will take less than 15 minutes. To expedite the quoting process, please bring a copy of your current policy to the appointment. If the above times do not fit into your schedule, call DeVries and Royston at 453-2000 or toll free at 1-800-453-4512. If you call, be sure to mention that you are a GVSU Faculty or Staff member to receive the discount.