Fall 1997

Reading Comprehension Needs of Students with Learning Disabilities in an Inclusion Setting: Class-Wide Peer Tutoring with a Summarization Strategy

Jeffrey A. VanDyke
Grand Valley State University

Follow this and additional works at: http://scholarworks.gvsu.edu/theses

Part of the Education Commons

Recommended Citation
http://scholarworks.gvsu.edu/theses/423

This Thesis is brought to you for free and open access by the Graduate Research and Creative Practice at ScholarWorks@GVSU. It has been accepted for inclusion in Masters Theses by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.
READING COMPREHENSION NEEDS OF STUDENTS WITH LEARNING DISABILITIES IN AN INCLUSION SETTING: CLASSWIDE PEER TUTORING WITH A SUMMARIZATION STRATEGY

Jeffrey A. VanDyke

Fall, 1997

MASTERS THESIS
Submitted to the graduate faculty at
Grand Valley State University
in partial fulfillment of the Masters of
Education
Table of Contents

Abstract

Chapter 1: Introduction ............................................................................. 1
  Problem ............................................................................................ 1
  Importance of the Study ................................................................ 2

Chapter 2: Review of Literature ................................................................. 4
  Summarizing ................................................................................... 3
  Summary ..........................................................................................13
  Classwide Peer Tutoring ................................................................. 15
  Summary ..........................................................................................24
  Conclusion ........................................................................................25

Chapter 3: Experimental Study .................................................................. 26
  Methods ............................................................................................26
    Participants ........................................................................... 26
    Setting .................................................................................... 28
    Materials ............................................................................... 28
    Intervention and Procedures .................................................. 30
    Measurement Instruments ...................................................... 33
  Results ...............................................................................................34
  Discussion .........................................................................................34

Appendix A: Graph of Results

Appendix B: Sample Worksheet
Abstract

Many challenges face educators as they attempt to meet the needs of increasingly diverse students in general education settings. Students with learning disabilities are among them. Meeting the specific reading needs of such students within general education settings is one such challenge. This study reviews the literature on summarization and classwide peer tutoring as they effect students with learning disabilities. This study also examines the strategy of summarization coupled with classwide peer tutoring as a program to address reading comprehension needs of upper elementary learning disabled and non disabled students in an inclusion setting. An experiment is performed and results are discussed.
Chapter One

Problem

Today's teacher faces many challenges. One challenge is how to address the needs of students with disabilities in inclusion classrooms (e.g., Baker & Zigmund, 1990; MacIntosh, Vaughn, Schumm, Haager, & Lee, 1993). Current research purports that such an approach benefits both students with special needs as well as the general education students (e.g., Liddiard, 1991; Fuller, Ronning, VanVoorhis & Moore, 1993; Banerji & Dailey, 1995). As a result, many teachers, schools and districts have sought to include students' with special needs in general education classrooms for most, if not all, of the school day.

As with any new approach, there are problems to solve. While the concept of inclusion presents a myriad of challenges and problems, there are some very basic issues that should be considered at the outset; most notably the problem of adequately meeting the specific needs of students with disabilities within the "one size fits all" world of general education. If teachers, parents, principals and various professionals have come to the conclusion that a given student has needs that a require specific, focused intervention (as outlined in the IEP), then we must seriously consider this issue.

One special needs population that faces this problem, perhaps more than any other, are those with learning disabilities. Because students with learning disabilities are usually less severely impaired than students with other types of disabilities, they are more likely to become candidates for
inclusion. This fact, of course, does not mean that they cease to require specific intervention simply because they are put back in with their general education peers. If we believe that teaching students with their general education peers whenever possible is desirable then how do we continue to provide highly specialized and individualized instruction to these students?

Too answer this question in its entirety would be a most prodigious task. The focus of this paper is on one aspect of a special needs population. Attention is given to the reading comprehension needs of upper elementary students with learning disabilities.

By this stage in most students' education, reading has become a vehicle for learning. That is, they read in order to learn (Mason & Osborn 1982; Armbruster, Echols & Brown, 1983). Those students with learning disabilities who are expected to function predominately within the general education environment would be expected to acquire much information in this way as well. Adequate reading comprehension skills then become increasingly essential as students move on through the grades (Chapman, 1982). Reading, both word recognition and comprehension, is usually the most common deficit area for students with learning disabilities. This paper's focus is on addressing the need of this population for mastering the comprehension of read material and look at some specific strategies that may help these students meet this need as students of a general education classroom.

The purpose of this thesis is to examine how two methods
(summation strategies and peer tutoring) for addressing the reading comprehension of students with learning disabilities who are being serviced in inclusion settings can be joined together in a service delivery model. This peer tutoring with summation program is implemented in an experimental design in order to assess its effect on reading comprehension.
Chapter 2

Many types of strategies have been used to help students improve reading comprehension. In the following pages one such strategy, summarization, is examined as it relates to students with learning disabilities in inclusive settings. A cooperative learning program, classwide peer tutoring, is also reviewed as a means for effectively practicing this strategy.

Summarizing

In the study by Taylor (1984) the researcher’s purpose was to determine the effect of a hierarchal summary procedure on reading and writing skills. The subjects of this study were 114 seventh graders in 3 different classrooms. One class was given direct instruction in the hierarchal summarizing procedure. One class was given conventional instruction composed of questions and answers. The other class had no treatment.

Treatment was administered one hour a week for five weeks. The first and last weeks of the study were reserved for pretesting and posttesting. The group that received the hierarchal summarizing training was taught how to outline material using main ideas and then develop a key idea.

The results of the study showed that this type of summarizing can improve student’s recall of information from unfamiliar text. The traditional question and answer group showed improvement as well. Both groups improved over the control. The study did not show that
hierarchal summarizing produced significantly greater improvement over conventional methods when read material was familiar to the reader. That is, when material was familiar to the reader, summarization did not help as much as when the material was unfamiliar. There was no overall significant effect on standardized reading scores.

The study by Gajria (1992) lends further support for the use of summarizing as a reading comprehension strategy for students with learning disabilities. The purpose of this study was to assess the effects of summarizing instruction on the comprehension of expository material by students with learning disabilities. The study also attempted to address maintenance and transfer of the strategy.

In this study, 30 students in grades six through nine participated. These students, from rural Pennsylvania, were all considered learning disabled. They were all identified by their resource teachers as good decoders but poor in comprehension. To be included in the study the students had to be at least two grade levels behind in reading but not below a fourth grade level.

The study was carried out in two phases. In the first phase the students were divided into three groups. One group of students with learning disabilities received summarizing training. Another group of students with learning disabilities did not receive this instruction, and a group of average readers was used. The summarizing group received training sessions in the use of the summarizing strategy. Each session was 35-40 minutes long, and delivered to groups of 3-4 students. The total
instruction time for each group ranged from 6.5 hours to 11 hours. The training centered around five basic principles of summarization: superordination of the material, deletion of redundancies within a passage, selection of important ideas, invention, and deletion of the unimportant. In phase two of the study, the areas of maintenance and transfer were examined. That is, the researchers retested the subjects after some time had elapsed with material of a different nature.

Results of the study showed significant improvement in reading comprehension for the group of students with learning disabilities trained in the summarization strategy. This improvement was shown again after a four week interval. Transfer of skills to different types of material was also shown.

A third study by Malone (1992) sought to learn if summarization skills could be taught and mastered in a short period of time.

The subjects of the study consisted of 45 students with learning disabilities in either sixth, seventh or eighth grade. In order to participate in the study the students needed to decode at second-grade level and comprehend at a 2.5-grade level or higher. They also had to read at a rate no less then 70 words per minute.

These students were then divided into three groups. One group received training in summarization. Another group received similar training but with the addition of a self-monitoring component. That is, this group was trained in the use of cue cards to assist in remembering the steps of the summarization strategy. The third group was taught using
traditional approaches not involving summarization. Training was
given over a three-day period with the last day devoted to posttesting. A
near and far transfer test was also given. That is, the researchers tested the
subjects again at a short and long range interval.

The results of the study indicated that the first two groups did better
in posttests then the third group. This finding seems to support the use of
a summarization strategy for use with students with learning disabilities
when addressing reading comprehension. There was no significant
difference between group one and two other than on the far transfer test.
This finding suggests that a self-monitoring component may be useful for
improving long-term recall but may not be beneficial in the short-term.

A study by Jenkins (1986) investigated differences between normal
readers and those with learning disabilities within an attentional
framework. The researchers hypothesized that students with learning
disabilities had a reduced level of attention to task when compared to
average learners and that the learning disabled students had less ability to
self monitor attention. Therefore, under learning conditions with
different attention demands, achievement of students with learning
disabilities would be affected to a greater degree then average learners.

The subjects of the study consisted of 32 students of average ability
and 32 students with learning disabilities. The students, from suburban
schools, were drawn from grades three through six.

The researchers introduced three reading conditions. In the first
condition readers read silently to themselves while seated next to an
examiner. In the second condition students read the selections silently to themselves while in the classroom during regular seat work. In the third condition students read silently to themselves while seated next to an examiner but under this condition the examiner directed the student to write paragraph restatements. Restatements were modeled for the students by the examiner using materials that were not part of the experiment.

Two different assessment measures were used following the readings. The first measure was a retell in which all students were tape recorded as they retold the story. These recordings were then scored as to accuracy which was established using pausal unit analysis. The second measure was a test consisting of comprehension questions.

The results of the study were mixed. On the retell measure (the recorded student retell) no significant difference between the three conditions was found. That is, students' (either average or those with learning disabilities) ability to retell was not affected by the three conditions under which they had read the selection. The findings did indicate that the paragraph restatement condition produced higher scores on the comprehension measure for both average learners and those with learning disabilities then did the other two conditions. Students with learning disabilities showed a greater increase in these scores then did the average learners.

In a similar study (Jenkins, 1987) by some of the same researchers, restatement training was used to address three research questions. The
first question asked if students would use the restatement procedure in situations where they were not explicitly told to do so (near transfer). The second question asked if comprehension would be affected under conditions where learners were not able to overtly apply the strategy (remote transfer). The third question asked if students would become more sensitive to the relative importance of ideas within a text selection as a result of the restatement procedure.

The subjects of this study were the same as those described in the previous study.

The restatement training consisted of three phases with a group average of 80% correct required before moving to the next stage. In the first stage students read primary level SRA Reading Laboratory stories that had been altered to include blank lines after each paragraph. They were instructed to write the main idea of each paragraph on the lines which followed. Two guide questions were used by the students in order to generate these main idea restatements: (1) Who? and (2) What's happening? Instructor feedback and group practice was used. In phase two brevity of restatements was stressed while instructors helped students try and recall paragraph information from the restatements only. In the third phase students wrote restatements on separate sheets of paper. These restatements were generated from regular narrative passages instead of the SRA selections.

The subjects were tested under three conditions. The first condition was a test of training which consisted of students being told to use the
restatement procedure and lines were provided for this purpose after each paragraph. Subjects were tested using a retell (as described in the previous study) as well as comprehension questions. The second testing condition was a near transfer test in which the students were given stories with no added lines and a separate sheet of paper. No other instructions were given. Subjects were tested using only comprehension questions. The third testing condition was a remote transfer test wherein only stories (no added lines) were given and no directions for use of the procedure were given. Subjects were tested with both retells and comprehension questions.

The researchers individually pretested each subject using the first two testing conditions. Experimental and control groups were formed. The restatement training was implemented and posttesting done.

The results of the study showed that the restatement procedure did indeed raise comprehension scores for all three testing conditions. Subjects in the experimental group did use the procedure under the near transfer test and comprehension scores for both the retell test and the comprehension test were significantly improved under the remote transfer test. A problem was encountered during posttest with the control group. The scores on the test of training posttest for the control actually dropped making complicating interpretation. The researcher proposed an explanation for this in that the control group may have resisted the posttest due to the taxing nature of the restatement procedure. In other words, the pretest let them know what they were in for and they were not
as cooperative for the posttest.

Graves (1989) investigated the effects of three different teaching situations on the ability of students with learning disabilities to identify and remember main ideas. This study is of relevance since identification of main idea is closely related to paragraph summarization.

The subjects of the study were 30 learning disabled students from a small southeastern school district. The subjects were taken from grades 5 through 8. All were identified as learning disabled, at least two years below grade level in reading comprehension and had an IQ within the normal range.

The subjects were randomly assigned to three groups. The first group received training in the identification of main idea in a direct instruction format and was regarded as the control. The second group was also given direct instruction in identifying main idea but a self monitoring component was added. The third group received the main idea instruction in conjunction with a mnemonic device designed to enhance recall of the main idea. Each member of each group received this training individually with the experimenter in a 40 minute session. Following instruction, the subject was asked to develop and then recall the main idea of each of the eight test passages used. All subjects were tested again a week later to assess delayed recall of main ideas.

The results of the study indicate that the monitoring strategy assisted students in developing main ideas but not remembering them. This group did better (81.2% mean average) then both the control (47.5%)
and the mnemonic group (66.2%). The group that used the mnemonic component did best on remembering main ideas for both immediate recall and delayed recall outperforming the other groups on both tests by 20% or more.

In a study by Borkowski (1988), the researchers assessed the effects of attributional retraining on the ability of students with learning disabilities to comprehend readings while using strategies. The researchers sought to answer the question of whether or not attributional factors would affect strategy acquisition and usage and ultimately reading comprehension performance. They also investigated whether or not such attributional training would effect beliefs about causality in other domains.

The subjects of this study were 75 students with learning disabilities from three school districts in Michigan. Ages ranged from 10-14 years. All subjects read at least two years behind grade level.

The researchers divided the subjects into four groups which received interventions in two phases. The first group received training during Phase 1 in both clustering-rehearsal and elaborative strategies while engaging in attribution training. That is, this group was given information and guidance as to potential cause of performance while learning specific reading strategies. During Phase 2 this group worked with summarization strategies instead of the clustering-rehearsal strategies. The second group received no strategy or attributional training during phase 1 while working on reading tasks similar to the first group. During Phase 2 this group began to receive training in both strategies and
The other two groups consisted of control groups.

The results of the study revealed that, as far as summarization is concerned, those subjects receiving attributional components showed a 50% improvement while those receiving strategy training only showed a 15% improvement. The researchers point out that on a whole attributional training paired with strategy training makes the latter considerably more effective.

Summary

These studies lend support for the use of a summarizing component with students who may or may not have disabilities. The Taylor (1984) study shows that summarizing strategies can effect a significant gain in reading comprehension with a general education population. The study by Gajria (1992) suggests that this strategy can be effective for students with learning disabilities and that skills can transfer to other areas. The third study, that by Malone (1992), offers further support and suggests that summarization strategies are easy to learn and use. Both of the Jenkins studies show that paragraph restatements improve reading comprehension. The first study by Jenkins (1986) revealed that although the conditions during the readings did not effect comprehension on the retell measure the condition involving paragraph restatements did effect comprehension on the questions measure. The second Jenkins study (1987) further elaborated this finding and showed comprehension improvement as well as internalization and spontaneous usage. This helps to promote the strategy of summarization because while
commonly regarded as an effective strategy for improving comprehension, many educators fear that it offers little benefit beyond those settings where it is implicitly supported. Summarization that requires students to actually stop and write during readings are quite intrusive and cumbersome. This study suggests that after sufficient practice, students may be able to internalize the summary process and metacognate as they read, a process believed to be used extensively by good readers. The study by Graves (1984) again shows that summarization improves comprehension and that the inclusion of a mnemonic device can foster improvement in remembering the main ideas (summaries) of read material. The study by Borowski (1988) reveals the effectiveness of summarization and that its effectiveness as well as that of other strategies, may be greatly improved if students are taught realistic views of this effectiveness and causality of performance.

Only one study (that by Malone) was performed with both regular education students and those with learning disabilities at the same time. This causes concern that the effectiveness of summarization as a comprehension strategy for use in an inclusion setting may be diminished when the strategy is taught in a large group setting. In many of the studies the strategy instruction was often delivered to very small groups or individuals. This is not a real world situation. The effectiveness of such a strategy as summarization needs to be established as taught by a regular education or special education teacher to a larger mixed group of students.

Despite these concerns a summarization strategy appears to benefit
both general and special education students. Such a strategy would seem to be a candidate for use in situations where both students are taught together such as in an inclusion setting.

Classwide Peer Tutoring

Classwide Peer Tutoring (CWPT) originated from the work of Delquadri and his colleagues in 1986 (Delquadri, Greenwood, Stretton, & Hall 1986). These researchers designed a program wherein students worked with a tutor while also grouped in larger teams. The tutoring partners worked together to earn points for their team which competed against another team, usually within the same classroom. Several aspects of CWPT appear to be responsible for its effectiveness. The main one appears to be CWPT's inherent ability to increase each student's response to academic activities. This is due largely to increased student activity or involvement with subject matter during the tutoring process. Other aspects of CWPT that may help explain its apparent effectiveness in increasing student performance have been noted by Maheady in his 1988 study which is examined later in this review. They include (a) an explicit teaching approach (b) point earning, (c) error correction strategies and (d) public display of student achievement.

A study by Maheady (1987) combined elements of Team-Games-Tournaments (TGT, a forerunner of cooperative learning) with elements of CWPT to create a hybrid program known as Classwide Student Tutoring Teams (CSTT). The study examined the effects of this program on the academic performance of mildly handicapped and nondisabled students.
The subjects of the study were 91 students from three ninth grade and three tenth grade mainstream math classes. The classrooms were part of program known as Project PASS wherein general education teachers with support from special education teachers taught smaller then normal classes (15-20 students) which included 3 to 6 students with mild handicaps. Twenty-eight of the students in the study were considered mildly handicapped with either learning disabilities or behavior disorders as defined by the guidelines of the state.

The intervention (CSTT) was implemented in these math classes in multiple baseline design. Following rather extensive training and workshop time devoted to the preparation of materials, the teachers implemented the program. Classroom content was initially introduced in traditional direct instruction format with CSTT used for practice and quizzes. Points were awarded to each 3-5 member heterogeneous team for correct answers on teacher prepared worksheets and quizzes. Points were also awarded for correct on-task behavior. Each team calculated their own scores. Scores were posted and following the weekly quiz (which was taken individually but team points were still awarded) points were totaled for the week and an overall winning team declared.

The dependent variable measured was the weekly quiz grades. These were shown to rise significantly while CSTT was in use. Scores on these quizzes rose an average of 20 percentage points for all students involved. When students with mild handicaps were examined, their scores rose an average of 19.24% eliminating failing grades for this
population while CSTT was in use.

In a related study Maheady (1988) used a similar intervention and design to assess the effectiveness of CWPT on improving the academic achievement of tenth grade social studies students.

The subjects in this study were 50 general education and mildly handicapped students participating in Project PASS (as described earlier). Fourteen of these students were mildly handicapped (students with either learning disabilities or behavior disorders). All students were taught the social studies material by the same general educator with support from a special educator.

The procedure of this study was essentially the same as in the previous one with the notable exception that the term CWPT is used exclusively with no reference to the CSTT hybrid program. A multiple baseline design was used again and weekly study guides and quizzes were the focus of the CWPT teams. Scores on weekly quizzes were the dependent variable.

As in the previous study, significant gains were made by both types of students following the implementation of CWPT. Scores on the weekly quizzes rose an average of 21.66 percentage points. Scores of students with mild handicaps rose an average of 23.15 percentage points. When CWPT was removed from two of the classes, scores fell back to preintervention levels, dropping about 20%. These scores translate into practical terms when it is considered that 33% of grades on the quizzes were failing prior to CWPT and were nearly eliminated during the use of CWPT.
A study by Mathes (1993), had as its purpose the study of whether or not a significant difference exists between sustained reading and repeated reading. The researchers also sought to examine the possible role of text difficulty.

The subjects consisted of 67 students with learning disabilities from 12 different resource rooms, 9 from a large south eastern district and 3 from a private school for students with learning disabilities. The researchers taught the teachers and students to use either peer mediated sustained reading, peer mediated repeated reading, or nothing (control).

The researchers trained the teachers and also helped train the students in the use of the peer mediated strategies. The Comprehensive Reading Assessment Battery (CRAB) was used as the measurement tool. The results of the study show that while peer mediated sustained reading showed improvement in the area of reading fluency over both repeated reading and controls, repeated reading itself did not show a significant difference. The level of text difficulty also showed no significant effect.

The researchers offer several explanations to explain these results. A major factor according to them was the lack of a reading rate measure in the program. In the version of repeated and sustained reading used by the researchers there was no rate check to be used by the students as they read. Rate checks are typically seen as self motivators as students try to read a little farther, thus faster each time they repeat a section. This element of motivation was missing. The authors also indicate that the severity of the disabilities within this population may have been greater then usual. Yet
another possible reason for the absence of the expected outcome is the fact that all students in the study had learning disabilities. One suggestion made by the authors was to pair students with disabilities with non-disabled students. In this regard, peer mediated reading could be used as a mainstreaming tool.

A study by Simmons (1994) examined the effects of instruction complexity and role reciprocity within classwide peer tutoring (CWPT).

The study consisted of 31 general education teachers in 5 schools. Students studied in each classroom were identified as either learning disabled (LD), low performing (LP) or average achieving (AA). The criterion for LP students was either a standardized test score in reading at or below the 25th percentile or identification by the classroom teacher as the lowest reader in the class. These students were placed in one of five experimental conditions; classwide peer tutoring, classwide peer tutoring with role reciprocity, metacognitive classwide peer tutoring, metacognitive classwide peer tutoring with role reciprocity, and a control. Teachers were trained by the researchers.

The program consisted of students reading for 10 minutes and answering questions for 5. The roles were reversed for the role reciprocity groups. The metacognitive group used; repeated reading, paragraph summary, and story retell. All students were given a test of reading ability known as the CRAB test.

Results showed that all CWPT groups did significantly better then the control group in the area of fluency. No significant differences were
found between the CWPT groups. Role reciprocity and metacognitive strategies did not appear to be significant factors. In the area of comprehension, all CWPT groups did better but the metacognitive group with role reciprocity answered more questions.

In summary, CWPT seems to assist LD and LP students in the areas of fluency and comprehension. The AA population did not have gains as significant as did the LD and LP groups.

Another study by Simmons (1995) sought to examine two areas. The first area was the exploration of the effectiveness of explicit teaching with learning disabilities (LD) and low performing (LP) populations. The second area was an examination of the effects of peer tutoring on the reading achievement of these two types of learners.

The subjects of the study were 24 regular education teachers who taught grades 2-5. These teachers were divided into three groups. The first group of 9 teachers were trained to use explicit teaching techniques. This group included 14 LD students and 7 LP students. The second group of teachers (n=7) also used explicit teaching techniques but in conjunction with peer tutoring. This group included 11 LD students and 7 LP students. The third group of teachers (n=8) acted as the control and included 19 LD students and 10 LP students.

The researchers trained the teachers in groups 1 and 2 in the use of explicit teaching techniques and peer tutoring. The researchers also trained the student tutors in the peer tutoring group on the use of peer tutoring with repeated reading and summarization strategies.
Teaching techniques were assessed by trained observers using laptop computers who recorded teacher behavior and dialogue at regular intervals. Reading comprehension was again measured with the CRAB test.

Results of the study showed that the group of students whose teachers used explicit teaching and peer tutoring had significant gains as shown by the CRAB test results. The explicit teaching group that did not use peer tutoring did not show significant gains over the control group. The minor gains it did show began to fade over time as shown by a long range post treatment test.

The next selection in this section joins the two areas of concern, summarization as an effective comprehension strategy and CWPT as an effective teaching method for diverse classrooms.

This work by Mathes (1994) is not a research study but rather outlines an approach to CWPT that utilizes three major components. It is suggested by the author that this revised version of CWPT, known as Peabody CWPT, should be effective in addressing the reading needs of learners with a wide range of abilities, including students with learning disabilities.

Peabody CWPT differs from standard CWPT in that three main strategies for reading are emphasized. The first strategy is partner reading. In this strategy a strong reader is paired with a weak reader. The first reader reads for 5 minutes while the partner monitors and helps correct missed words. Roles are then reversed and the same selection is read
again. Following reading, the partners engage in a retell wherein the weaker reader tells the other the sequence of the main points of the selection as the stronger reader assists. The second strategy is paragraph shrinking. This strategy is similar to partner reading in that the strong reader reads first. The other student then reads but continues in the selection with new material. The partners work together during this reading to create a summarization of the main idea of each paragraph. In this strategy one reader makes a prediction as to what will be learned from a half page of text. The student then reads the selection aloud, decides if his prediction was accurate, summarizes the selection in 10 words or less and makes a prediction regarding the next half page. The reader’s partner checks the reader’s accuracy on each step on this process. After 5 minutes the partners switch roles. As in other CWPT programs, points may be awarded and some type of teams established.

The authors of this work maintain four reasons why this version of CWPT should be effective. First it employs several proven features of effective programs such as efficient use of class time, active learning activities, many opportunities to read and explicitly taught strategies. Second, the program addresses the needs of all learners in that it targets deficit areas for weak readers while reinforcing important skills of good readers. Third, Peabody CWPT offers success for all learners and builds skills in cooperation and social relationships. Fourth and last, the
program designers claim it is feasible. That is, it is simple to instigate and versatile enough to be used with many curricula.

A study which built on these concepts was one by Fuchs (1996). In this study the researcher sought to explore the effectiveness of a variant of the CWPT model. This variant had as its focus the use of strategies for reading. These strategies were taught during peer tutoring exercises. The program was called Peer Assisted Learning Strategies or PALS.

The subjects of this study were 120 students from 12 different elementary and middle schools. Each student was identified as fitting into one of three groups: low achievers with disabilities, low achievers without disabilities and average achievers.

Twenty teachers implemented the PALS program for 15 weeks. This program is similar to other CWPT programs except for the addition of the strategies work the tutoring groups engaged in. Three strategies were used: partner reading with retell, paragraph summary, and prediction relay (as described in the previous study). The researchers spent seven 45 minute sessions training the students in the use of these three strategies. The remaining 20 teachers acted as the control using CWPT but not the PALS portion. The CRAB test was the instrument used to measure reading achievement in both experimental and control groups for both pretest and posttest. Three students representing each of the three learner types were tested from each of the 40 classrooms in the study.

The results of the study showed that the experimental group did significantly better than the control group on all aspects of the CRAB tests.
All three learner types showed improvement over the control but those students with more severe disabilities gained less than others. The author cited this fact in recognizing the continued need for individualized instruction to address the needs of many students with disabilities.

Summary

This examination of CWPT has concentrated on those studies that addressed students with learning disabilities. All of the studies have shown that CWPT (or closely related programs) can positively effect academic achievement of this population and all but one of the studies also addressed students in general education, showing in most cases that all types of students can benefit significantly from CWPT. We have also seen that CWPT can be used in many situations, including the explicit teaching of reading strategies such as summarization.

Some problems with the CWPT program and some of the studies should be considered however. In some cases the sample sizes were quite small and in the case of the Maheady studies (1987 & 1988) the students with mild disabilities had been individually recommended (essentially hand picked by previous teachers) for Project PASS. Several studies involved unique situations calling into question the feasibility of replication under normal circumstances. Such studies include those by Maheady, wherein the Project PASS students may not be a typical classroom population and where the class sizes were unusually small. Also the availability of a special educator as a collaborator is less likely. In the study by Simmons (1995) the researchers individually trained students
in the use of the strategy. Can this level of individual training be done in a general education classroom by one teacher? Another potential problem with some studies (most notably those by Maheady) is the vast amount of work required in the preparation of special materials. Although CWPT seems adaptable to most subjects and curricula, can we expect educators to generate such extensive materials to coincide with the program? No studies considered the impact of the program on gifted and talented students. Would they fit in and be appropriately challenged?

Despite these concerns, much research has shown CWPT to be a promising teaching approach for increasing achievement for many types of students in various classroom situations with varied content, including, as we have seen, students with learning disabilities.

**Conclusions**

The preceding literature review has shown summarization to be an effective strategy for addressing reading comprehension and CWPT to be an effective means of delivering and practicing material, including strategies such as summarization for both average learners and those with learning disabilities.
Chapter 3

In the opening pages of this paper a problem was identified; providing appropriate reading comprehension instruction to students with disabilities within an inclusion setting. One possible strategy and one teaching method were singled out, reviewed and discussed in the second portion of the paper. From this review of previous work on the problem two main components were identified as being potentially effective. The first is a peer tutoring component (CWPT) whereby students provide feedback to each other in a one-on-one model and actively engage the material presented. CWPT was shown to be an effective vehicle for strategy instruction. The second component is the concentration on a strategy for comprehension that is generally accepted as powerful and, as previous shown in this paper, is effective for students with learning disabilities as well as students in general education. There are numerous ways to combine these two components into effective programs. The following study attempts to establish the validity of one possible combination.

Methods

Participants

Thirty-eight sixth grade students participated in the study. All students were part of two sixth grade classrooms at the same K-6 public school. This school, part of a large urban district, served 429 students, 80% of which were eligible to receive free or reduced meals. All sixth grade students were placed into two groups which rotated between such subjects
as science and social studies as well as different aspects of language arts. For example, during the language arts time one group would be taught fluency and comprehension through a reading workshop program, while the other group would receive instruction in mechanics, grammar and spelling. The groups would switch the following day. Some students whose needs were deemed to severe too be adequately addressed in this format were pulled out of the language arts or math portion of this team teaching program and taught in small groups in the resource room.

Members of these groups were randomly assigned and had been operating as groups since the beginning of the school year. The group that was to receive the intervention was given the designation of group B. The control group was given the designation of group A. Group B consisted of 10 boys and 10 girls. Included in this count were 2 boys with learning disabilities and 1 girl with learning disabilities. Group A consisted of 19 students, 11 of whom were boys. Three of these boys had learning disabilities.

Students with Special Needs. The six students (five boys and one girl) with special needs who participated in the study were identified and served under special education guidelines within the language arts components of the general education classroom. All of these students were certified as learning disabled. All students were being served under a resource model. Full scale I.Q. scores ranged from 71 to 96. The amount of time each student spent in the resource room varied according to each student’s Individualized Education Plan (IEP) but all six received their
reading instruction within the context of the general education classroom with support and input from a special education teacher. All six of these students had goals written on their IEP from the reading comprehension area of language arts. These students obtained grade equivalent scores at the instructional level between third and fourth grade level on an informal reading inventory.

**Students in General Education.** The remaining twenty-six students in the study comprised the rest of the sixth grade at this school. There were 19 girls and 22 boys. These students were divided into one of two general education classrooms.

**Setting**

The study was conducted in the general education classroom of one of the two general educators. This teacher was responsible for the reading workshop segment of the language arts curriculum. Students used individual desks arranged in four two by four arrays. The students faced the chalkboard which also had an overhead screen. This room was connected through a side door to another room that was being used as a resource room. This allowed for easy communication between the general education teacher and special education teacher. The other sixth grade classroom was down the hall from these two rooms.

**Materials**

The materials used for all parts of this experiment were taken from Book Two of the fifth grade level of *Timed Readings*, third edition published by Jamestown Publishers. This material was chosen because
the passages were of appropriate length (averaging about 400 words), readability (5th grade level) and each passage included a set of 10 comprehension questions.

In order to ensure consistency (regarding interest level) of passages for the pretest, instruction and posttest, the numbers 1 through 50 (corresponding to the 50 passages contained in the book) were randomly assigned to either the pretest, instruction or posttest phase of the intervention. The order in which the passages were given, whether for pretest, instruction or posttest, was also randomly generated by this drawing process.

The pretests and posttests were created by enlarging (the researcher felt the text font as published in the book was so small as to present a possible deterrent for some readers) each passage on a copy machine. Each passage fit on one side of a standard sheet of paper. The corresponding comprehension questions were copied onto separate sheets.

The materials for the instruction portion of the study were again pulled from the same source. These paragraph worksheets were developed by the researcher to be similar to those suggested by Mathes' paragraph shrinking strategy (Mathes 1994) and used by Fuchs (1996). The passages that were randomly assigned to the instruction portion of the intervention were again enlarged, separated by paragraph and lines were inserted after each paragraph on which students wrote their summaries (see appendix B). These worksheets were distributed to the teams one at a time as they finished each one. The order of the passages was random but
the worksheets derived from each passage (typically three sheets for each passage, two paragraphs with blank spaces after each paragraph per sheet) were distributed in order so that the cohesiveness of the passage was not lost. Each paragraph on each worksheet was given a two number designation to aid in identifying to which passage each paragraph corresponded. For example, each paragraph taken from passage 22 would be numbered 22-1 for the first paragraph, 22-2 for the second and so on until all paragraphs were used.

**Intervention/Procedures**

The pretest was given to both groups A and B. In order to better motivate students, the groups were told the basic design of the study and that the other group was doing the same thing. The students were also told that the teachers wanted to see which group could do the most passages with the most correct answers. Both groups were given 35 minutes to read as many passages and complete the questions for those passages as they could in the time alloted. Both groups were given the same passages in the same order but students completed each passage and related questions at their own pace. Therefore some students were able to finish 8 such passages with corresponding questions while others only finished 4. In order to avoid possible effects of “looking back”, the passages and questions were written on separate sheets. Students had to turn in their passage before receiving the corresponding questions. Students were told to complete each passage and questions as quickly and accurately as they could and to continue working until told to stop. No more sheets

30
were distributed after the time allotted had elapsed but students were allowed to finish a question sheet that had already started. Both groups were given the pretest by the researcher at the same time of day, on two consecutive days.

The instruction portion of the intervention consisted of two parts: teaching of the strategy, and practice of the strategy with teacher feedback. The strategy was taught to the experimental group the first 20 minutes of a language arts session. Students were told that they would be trying a new strategy in reading that would involve the use of partners in a tutor and tutee format. Ten minutes were spent explaining the program and 35 minutes were spent teaching and practicing how to summarize and work with the partner. A good summary was taught to contain an accurate restatement of the topic of the paragraph in conjunction with a statement which told the main idea concerning this topic. Students were taught to write a sentence stating what the paragraph was about in a general sense, then to add a sentence which stated what the paragraph told them about the stated topic. The following cues were used: Ask yourself what the paragraph was about, and Ask yourself what it tells you about (the answer to the first question). These cues were adapted from The Paraphrasing Strategy (Schumaker, Denton & Deshler 1984). This instruction was given by the special education teacher using overhead transparency examples of the paragraph worksheets.

The teacher modeled the completion of three summaries. The criteria for a good summary was reviewed and the class then critiqued
three examples of summaries. Two of these examples had flaws which were discussed by the group. The roles and responsibilities of the tutor and tutee were clearly outlined. Tutees were told to read each selection aloud to the tutor, tell the tutor what a possible summary might be, then write the summary on the sheet. Tutors were told to provide correction during the reading of the selection by helping with difficult words or clarifying concepts. They were also responsible for assisting the tutee in making sure that the criterion for a good summary were followed.

The method of scoring was also taught to the group. The students were told that each summary would be given a number from one to three depending on how well it met the criteria for a good summary. Each team's score would be totaled for the 3 class sessions and the team with the highest score would be rewarded with lunch at McDonald's. Students were reminded that accuracy was just as important as speed and they would do best by staying on task and working steadily.

Each student and their partner spent 3 class sessions reading short selections to each other and putting the selections into their own words. These 3 sessions (along with the initial introduction and training session) constituted the practice portion of the intervention. Teams were given feedback on points earned and general comments on quality of summaries prior to each class session.

The peer tutoring system went as follows. One member of the team read a paragraph aloud to his partner who also had a copy of the text in order to provide immediate feedback as to word recognition errors or
clarification of content. The first member wrote a two sentence summary of the paragraph following the guidelines given and using input from the tutor. The team members exchanged roles for the next selection. The team continued in this manner until the 45 minute time slot lapsed. The teams handed in their selections and summaries at the end of the class period. These materials were kept in team folders. The teams' work was graded, scored and feedback was given to the students prior to the beginning of the next session.

The postest consisted of the same process as the pretest. Ten randomly selected passages (as described previously) were set aside to be used as the postest. Again both group A and B were given a 35 minute time period to complete as many full 400 word passages as possible. No other instruction was given. No mention of summarizing was made and neither group used partners.

**Measurement Instruments**

In order to determine that groups A and B were indeed nearly identical, the percent of correctly answered comprehension questions for both groups A and B were calculated and compared for each passage of the pretest.

The score on the pretest and posttest measurements were calculated by totaling all correct responses by a group and dividing by the total number of questions thus generating a percentage correct score for the group.

Individual scores on the pretest and posttest were also examined in
this manner for the six students with learning disabilities.

Results

The results of the pretest showed an overall group average of 58% of comprehension questions correct for group B (the experimental group) with group A (the control group) answering 56% of the questions correct (Appendix A). Group B answered a total of 960 questions (average of 48 per student) with group A answering 730 questions (average of 37 per student). When pretest data was analyzed for the three students in group B with learning disabilities the average percent of answers correct was 56% (55%, 60% & 53%) with a total of 80 questions answered (average of 27 per student). The results for the three students with learning disabilities in group A revealed an average score of 49% (53%, 56% & 37%) with 140 questions answered (average of 47 per student).

The results of the posttest revealed that group B answered 71% of the comprehension questions correctly while group A answered 60% correctly. Group B answered a total of 1210 questions (average of 60 per student) while group A answered 760 questions (average of 42 per student). The percentage correct for the subgroup with learning disabilities from group B was 68% with 150 questions answered (average of 50 per student). The percentage correct for the subgroup with learning disabilities from group A was 59% with 150 questions answered (average of 50 per student).

Discussion

The results of this investigation show a substantial increase in the
comprehension scores of those students (both general education and those with learning disabilities) who underwent the summarization with CWPT intervention. A comparison of the percentage of correctly answered questions from the pretest to the posttest for the experimental group (group B) showed a rise in percentage correct of 13 points. When the subgroup with learning disabilities from group B is examined an increase of 12 points is found. A similar comparison for group A (control group) showed an increase of 4 percentage points from pretest to posttest.

This would seem to indicate that the intervention was indeed effective in increasing the number of correctly answered comprehension questions.

It is also worthy of noting that the increase in scores for the experimental group would equate to a move from failing grades to passing grades (albeit poor passing grades).

Limitations

However, there are some concerns with the study that should be addressed. The most obvious concern is the small sample size. Before too much weight is given to these finding it would be necessary to replicate it on a much larger scale. The effects of this can readily be seen when comparing the pretest and posttest scores of the group A subgroup (the control group of 3 students with learning disabilities). This group went from 49% of answers correct to 59%, an increase of 10 percentage points. Almost as big an increase as the experimental group. This is explained by examining the individual scores for this group. Pretest scores were 53%,
56% and 37% as compared to 80%, 60% and 36% respectively. The large jump in scores for this group is attributed to the large increase in the scores of one student. A larger sample size would help control for this.

Appendix A shows the difference in the number of passages and questions completed for all four groups. The reason for the overall higher number completed for group B (especially on the posttest) is somewhat of mystery. Group B seemed to have a better attitude toward the task in general. Perhaps researcher enthusiasm extended to the group. Perhaps group dynamics, despite random assignment, caused this.

Other potential problems arise when considering the rewarding of the winning teams. The team with the most number of points earned was treated to lunch at McDonalds. Was this a strong motivator for students? Is such an extrinsic reward a necessary component of the program? Such a reward would be difficult (and expensive) to deliver on a larger, long term basis.

Another limitation of this study is the fact it did not attempt to determine which part of the intervention, CWPT or summarization, may have been most responsible for effecting the change. Perhaps CWPT or summarization alone could increase comprehension. Further research is needed to determine this.

Although the materials used in the study were considered representative of expository text used for this grade level, it was not actual content material. A study needs to be done with actual text from a content class to determine if CWPT with summarization would be effective.
Would a rise in comprehension translate into improved performance in the class? The study by Maheady (1988) addressed some of these issues but not summarization.

Another area of concern is the type of comprehension addressed by the summarization strategy and that tested by the comprehension questions. Although half the questions were determined to be fact recall questions and the other half were more analytical in nature, no attempt was made to determine which type of question may have been effected by CWPT with summarization strategy.

Despite these limitations, comprehension scores were effected. CWPT appears to be an effective teaching technique and when it is utilized to teach strategies (summarization or other strategies) which themselves hold potential to increase students' achievement, a powerful team is formed.
References


Simmons, D. C., Fuchs, D., Fuchs, L. S., Hodge, J. P., & Mathes, P. G.


Appendix A: Graph of Results
Comprehension Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B (experimental)</td>
<td>58%</td>
<td>71%</td>
</tr>
<tr>
<td>Group B LD</td>
<td>56%</td>
<td>68%</td>
</tr>
<tr>
<td>Group A (control)</td>
<td>56%</td>
<td>60%</td>
</tr>
<tr>
<td>Group A LD</td>
<td>49%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Questions Answered

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Number of Questions Answered Per Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B (experimental)</td>
<td>48</td>
</tr>
<tr>
<td>Group B LD</td>
<td>27</td>
</tr>
<tr>
<td>Group A (control)</td>
<td>37</td>
</tr>
<tr>
<td>Group A LD</td>
<td>47</td>
</tr>
</tbody>
</table>
Appendix B: Sample Worksheet
Bows and arrows are one of man's oldest weapons. Early man hunted with the bow more than 8,000 years ago. It was an important discovery for man. It gave him a deadly weapon with which he could kill his enemies. He could also kill prey from a distance. (Spargo, 1989)

Summary

The ordinary bow, or shortbow, was used by nearly all early people. This bow had limited power and a short range. However, man overcame these faults by learning to track his prey at close range. In fact, some African pygmies still hunt this way. They get very close to their prey, then shoot it with poisoned arrows. Even the American Indian rarely tried a shot past forty yards. (Spargo, 1989)

Summary
GRAND VALLEY STATE UNIVERSITY
ED 695 DATA FORM

NAME: Jeffrey Alan VanDyke

MAJOR: (Choose only 1)

____Ed Tech    ____Ed Leadership    ____Sec/Adult
____Elem Ed    ____G/TEd    ____Early Child
____X Elem LD    ____Sec LD    ____SpEd PPI
____Read/Lang Arts

TITLE: READING COMPREHENSION NEEDS OF STUDENTS WITH LEARNING DISABILITIES IN AN INCLUSION SETTING: CLASSWIDE PEER TUTORING WITH A SUMMARIZING STRATEGY

PAPER TYPE: (Choose only 1)

____Project
____X Thesis

SEM/YR COMPLETED: Fall '97

SUPERVISOR'S SIGNATURE OF APPROVAL

Using the ERIC thesaurus, choose as many descriptors (5-7 minimum) to describe the contents of your paper.

1. learning disabilities
2. reading
3. comprehension
4. classwide peer tutoring
5. inclusion
6. research
7.
8.
9.
10.

ABSTRACT: Two to three sentences that describe the contents of your paper

A reading program utilizing summarization and classwide peer tutoring is examined for use in an inclusion setting. An experiment is designed, executed and the results examined showing that such a program can be effective in improving the comprehension of both general education students and students with learning disabilities.

**Note This page must be included as the last page in your master's paper.

9-11/04/94 rev 5/94