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The Effects of Classwide Peer Tutoring on Students’ with Learning Disabilities Basic Reading Skills

Susan Louise Tucek

Winter, 1998

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

The effects that Classwide Peer Tutoring has on students' with learning disabilities basic reading skill was examined. Classwide Peer Tutoring is a program that allows students to engage more time in actual reading behavior with partner feedback. One instructor implemented Classwide Peer Tutoring for a 4 week period to 11 students who had learning disabilities in the areas of reading and writing. One volunteer was used twice a week to emit tests of the students' progress. Results of the study indicated that compared to their pretest scores, the posttest scores showed that students made slightly positive improvements in the areas of correct response, error rate, and comprehension. Furthermore, a satisfaction questionnaire showed that students had positive feelings about Classwide Peer Tutoring. This study suggests that Classwide Peer Tutoring may be a program that would be beneficial for students basic reading skills. Classwide Peer Tutoring should be implemented for a longer period of time to note if greater improvements could be contrived.
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Chapter 1

Introduction

Randy was a student with learning disabilities in a fifth grade inclusion classroom. He shared a classroom with 30 students, 15 of them also having learning disabilities. He read below a preprimary reading level and spelled few words correctly. He had difficulty writing and was slower than the rest of the class when copying information off the board or writing a response. His speech was also difficult to understand, and he used only short phrases to respond. Randy also had a limited attention span. This problem caused him to need repeated prompts in order to work on assignments. He was pleasant and usually did his best with the assignments, though at times became frustrated and refused to work. He made little effort to contribute in small or whole group situations and had few friends due to his immature behavior.

Many accommodations were made for Randy in the general education setting. Tests were read to him, stories were on tape, assignments were cut in half to compensate for his slowness to write, and major writing assignments were dictated from his oral language. However, little individualized instruction was given to Randy because when students were pulled for special reading instruction, the student teacher ratio was 15 to 1.

The Problem

More and more students are coming from inclusion room settings without the basic skills needed to interact with grade-level material independently. Learning with
"all" students in an inclusion classroom can be rewarding for many students, but some students (like Randy) need more individualized instruction than is being provided. Meeting the individual needs of students with learning disabilities (LD) especially in the area of decoding skills in upper elementary and middle school is a major challenge with the current trend towards inclusion.

Baker and Zigmond (1995) found that during the 1980s, teachers administering elaborate assessments to students with LD was common practice. They used both formal and informal tests to document skill deficiencies, and they provided a carefully sequenced plan of remedial instruction to correct deficiencies in either one-to-one or in very small group situations. In the 1990s, teachers are now being challenged to rethink special education services for students with LD, to abandon pull-out, and to return students to general education settings while delivering specially designed instruction in the general education class. This paper will examine the challenge of including students with LD in the general education classrooms. Specifically, it will focus on the difficulties of developing the basic skills of students with LD in the general education setting.

**Potential Causes of Students with Learning Disabilities Not Mastering Basic Skills in General Education**

Inclusion is the new trend for delivering services to students with learning disabilities. Ironically, inclusion might exclude students with LD from some of the
services they need for academic success. The following studies provide an overview of what may cause difficulties for students with LD in the general education setting.

Baker and Zigmond (1995) investigated inclusion classrooms in five different regions of the United States to understand how students with LD were being served. Although each inclusion situation varied, some common themes were observed at each school.

One theme identified by these researcher was that inclusion required more resources than pull-out programs. In order to compensate for these increased expenses, schools used lower cost paraprofessionals and peers in place of trained teachers to instruct the most difficult to teach students. These paraprofessionals and “study buddies” lacked training in how to work with students with LD. Also, the assistance they provided was informal in that they responded only to students with LD immediate needs. At every site, teachers, administrators, and parents stated “that some students with LD needed more than the in-class coteaching that was being provided” (p. 174).

A second theme identified by these researchers was that special education teachers were responsible for teaching students who did not have individualized education plans (IEP’s), consulting with teachers in general education, and participating in teacher assistance teams. As a result, when special education teachers discussed their roles, they had more concern for the group and the “smooth functioning of the mainstream class, the progress of the reading group, and the
organization and management of cooperative groups or peer tutoring rather than concern for the individual. No one seemed concerned about individual achievement, individual progress, or individual learning" (p. 174). No specific, directed, individualized, intensive, remedial instruction was being provided to students who were clearly deficient academically and struggling with the assigned schoolwork.

A third theme identified by Fuchs and Fuchs (1995) was that general education teachers only made adaptations when encountering persistent failures to the group and did not focus on individual students. General educators also tended to focus more on the classroom orderliness and operation that made learning productive for the majority of students, leaving the remaining students who were not successful to not get the instruction they needed.

Overall, these researchers concluded that in inclusion situations conducting different instructional activities for different students at different times is difficult. These studies indicated that inclusion is: (a) not providing students with LD with the basic skill instruction they need; (b) not providing the inclusion classroom with the supportive resources required for student success since it is more costly than a pull-out program; (c) relying on paraprofessionals and peers who are not adequately trained to provide the students with LD with the services they need; and (d) focusing special and general education teachers' attention on the group rather than the individual.
Potential Effects of Inclusion

Inclusion has not been proven to be the answer to help meet the needs of students with LD. Fifty independent studies have found that general classes were superior to special education classes for students with below average intelligence, but significantly inferior to special education classes for students with emotional disturbances and learning disabilities (Fuchs & Fuchs, 1995). The following studies examined how inclusion is effecting the basic skills of students with LD.

In one study, Zigmond et al. (1995) looked at inclusion classrooms to see if yearly academic progress was made by students with learning disabilities. Three research projects were implemented at six schools in rural, suburban, and urban communities. The University of Pittsburgh, the University of Washington, and Vanderbilt University each developed a model for accommodating students with disabilities in the general education classroom who previously received services in special education classrooms. Although all three projects invested tremendous amounts of financial and professional resources to accommodate students with LD, 63% of student with LD did not make average or better gains in reading and 40% of student with LD made below average gains in reading.

In a second study, Jenkins et al. (1994) measured the effects of restructured reading groups on the reading of students with LD in inclusive classrooms. Specifically, they examined the effects of heterogeneous grouping on students' reading ability. Heterogeneously grouped instruction comprised of "teaching presentations
directed to the class as a single group, the absence of instruction groups that were divided according to reading ability, and the use of the same instructional materials for all students" (p. 346). Within the heterogeneous groups, the researchers provided Cooperative Integrated Reading and Composition (CIRC), cross-age tutoring, supplementary instruction in synthetic phonics, and in-class instructional support from specialists. Although the majority of students prospered with heterogeneous grouping, students from poor families and those with disabilities did not for several reasons. One reason was some students struggled with the grade-level reading material. A second reason was peer assistance within the cooperative group structures on CIRC and in-class help form specialist did not provide enough support. A third reason was the supplemental direct intensive decoding instruction lasted only 20 minutes daily so not to interfere with the regular reading program. These researchers concluded, “students did not receive anything near the level of service intensity that they would need to really thrive. For that to occur, these children still require substantially more resources than currently available in our current system of public education” (p.357).

Interestingly, Baker and Zigmond (1990) noted from examining K-5 students in an inclusion setting that teachers continue to use traditional quiet seat work instruction for all students. However instruction of this form often does not have a positive impact of the achievement of students with LD. Teachers need to use a wider range of techniques for teaching reading by making it more engaging and interactive for student with LD to be successful.

Combined, the above studies underscore several challenges for including
students with LD in general education classrooms such as: (a) using materials that are too difficult; (b) providing insufficient support; and (c) implementing programs not designed to help compensate for their lack of skills. These seem to be typical effects of heterogeneous groupings for students with disabilities; students are fitting in but not receiving the academic attention they need.

**Purpose of Thesis**

The purpose of this thesis is two-fold. First, in chapter two potential solutions will be examined that may help students with learning disabilities progress on their basic skills given the current situation many teachers and students are facing in an inclusion classroom. Second, in chapter three, one solution will be implemented, and its effectiveness on students' ability to read will be analyzed.
Chapter 2

Review of Literature

How can teachers effectively teach basic skills to students with LD in an inclusion classroom? In inclusive classrooms, many accommodations are made for students with learning disabilities (e.g., test read to, assignments cut), but little if any intensive instruction can be provided in their deficit areas because of: (a) the large numbers of low skilled students, and (b) the lack of time to both provide the extra help they need in their general education content area classes and to remediate the basic skills. This chapter will examine the research on a program called Classwide Peer Tutoring which is designed to help provide basic skills instruction to diverse groups of learners in general education classes in an efficient way. In the following pages, the effects of this program on learning disabled students’ as well as other learners’ basic skills, will be examined.

Classwide Peer Tutoring

Classwide peer tutoring (CWPT) is a program where all students in a class are paired and work simultaneously. According to its developers, Greenwood, Delquadri, and Hall (1989), CWPT's central purpose is to "increase the proportion of instructional time that all students engage in academic behaviors and to provide pacing, feedback, immediate error correction, high mastery levels, and content coverage" (p.372). This teaching approach releases the teacher from the difficult responsibility of providing intensive and effective instruction and feedback to a broad
range of learners through large-group instruction. The following studies will describe the effects CWPT on students’ reading, spelling, math, social studies, and long-term academic success.

**Reading.** CWPT during reading instruction typically takes place for a 30 minute period. Ten minutes is planned for the student to serve as a tutor and another 10 minutes is used for the student to be tutored. The final 5-10 minutes remains for the instructor to add and post individual and team points. Students are randomly assigned to one of two teams every Monday. Teams are restructured weekly so that everyone can be on a winning team. During tutoring, partners are signaled to move together by the teacher. A timer is set to signal the first 10 minute period. The tutee reads sentences in the assigned passage and earns points for his/her team. The tutor observes the tutee read, awards points, and corrects errors. Two points are earned for the tutor reading a sentence without errors. One point is earned for successfully correcting an error identified by the tutor. Word substitutions, omissions, and hesitations are counted as errors. To correct the error, the tutor pronounces the correct word and the child rereads the sentence until it is correct.

Two studies used the above procedure to examine the effects of CWPT on students with LD oral reading and decoding progress. First, Greenwood, Delquadri, and Hall (1984) reviewed a study conducted by Whorton and Delquadri (1983) who used CWPT with 12 students with LD to improve their oral reading. No further information about the sample was given nor the duration CWPT was implemented.
Oral reading rates were systematically probed, after reading instruction, on reading passages assigned daily. Students typically doubled their rate of words read correctly per minute (CWPM), increasing from a mean of 24 CWPM during baseline within the regular basal reading program, to a mean of 48 during classwide peer tutoring. Reading error rate (EWPM) declined from a mean of 4.4 words to 1.7 words during the tutoring program. Students also demonstrated increased reading behavior. During classroom instruction time, CWPT increased student's reading aloud opportunities from 2% of reading engagement at baseline to 27% of reading engagement. Silent reading in the classroom also increased during CWPT from 4% of reading engagement to 34% of reading engagement. Tutoring provided students with increased opportunities to read and master the passages, whereas general reading instruction provided little engagement in the actual reading practice.

Second, Kazdin (1977) compared the effects of CWPT to traditional methods on reading outcomes of inner city students with LD to learn. Although the specific method of CWPT that was implemented was not described in this study, four treatments were implemented to note CWPT’s effectiveness. One treatment was looking at CWPT when parent tutoring at home, the second treatment was looking at CWPT implemented into the regular school program, the third treatment was looking at students with LD using their regular reading program, and the fourth treatment was looking at students without LD using their regular reading program. The study involved 64 students in the four groups. Results after 3 months indicated that oral
reading error rates for students in both CWPT programs (school and home) were significantly reduced compared to each group's preassessment levels and in relationship to both the LD control group and non-LD normative group. Also observational data showed that students spent more time engaged in oral and silent reading behavior than did any of the other groups.

Unlike the first two studies, a third study on CWPT examined its effect on students' with LD reading comprehension skills. Specifically, Fuchs, Fuchs, Mathes, and Simmons (1997) did the study to explore the effectiveness of Peer-Assisted Learning Strategies (PALS), a version of CWPT, by comparing to corresponding controls the reading progress of three learner types: low-achieving students with disabilities (LD), low-achieving students without disabilities (LP), and average-achieving pupils (AA). One-hundred and twenty student participants were involved in the study from 40 classrooms in 12 schools representing three school districts. Six schools were part of a large urban school system, and six were in two suburban districts. Seven PALS and 10 No-PALS teachers were part of the urban school system, and 13 PALS and 10 No-PALS worked in the two adjacent school districts.

The teachers implementing PALS paired all students in their class by first ranking them on reading performance and then splitting the ranked list by half. The top-ranked student in the stronger half was paired with top-ranked reader in the weaker half. Next, the second-ranked students in each half was paired. This process
continued until each student was paired. Pairs remained for four weeks, after which teachers announced new pairings.

Partner reading with retell, paragraph summary, and prediction relay were the strategic reading activities students learned to use in PALS. During partner reading with retell, each partner read aloud connected text for 5 minutes, for a total of 10 minutes. The stronger reader read first, with the weaker reader serving as tutor, then they switched roles. Students were trained as tutors to correct word recognition errors, such as mispronunciations, omissions, insertions, and pauses of longer than 4 seconds. Self-corrections were not counted as errors. When an error did occur, students were taught to point to the missed word and give the tutee 4 seconds to say the word and then repeat the sentence with the correct word. If the tutee failed to say the word correctly, the tutor stated what the word was and asked the reader to repeat the sentence. Tutors then prompted the lower performing reader to retell by asking, “What did you learn first?” And then “What did you learn next?” If the weaker reader could not remember, the tutor provided the information, and the retelling continued. Retellings lasted 1-2 minutes. During paragraph summary students read aloud one paragraph at a time and attempted to identify the subject and main idea by answering “Who or what was the paragraph mainly about?” and “Tell the most important thing learned in the paragraph.” If the reader answered incorrectly, the tutor said, “Try again.” If the reader’s answer was still incorrect, the tutor said, “Read the paragraph silently and try again.” If the third try was unsuccessful, the tutor provided the
answer. In the first 4 weeks of PALS, *paragraph summary* was conducted for 20 minutes. First the stronger reader in each pair read and answered questions for 10 minutes; then the weaker reader read.

*Prediction relay* was introduced during the fifth week of PALS after students were comfortable with the basic procedures and had become better at summarizing and identifying the main idea. In prediction relay, the reader: (a) made a prediction about what will be learned on the next page, (b) read aloud from the page, (c) confirmed or disconfirmed the prediction, (d) summarized the just-read text, (e) made a new prediction, and (f) turned to the next page. Each student followed this routine for 5 minutes. Again, the higher performing reader read first. The tutor was still responsible for correcting the reader's word recognition errors, predictions, and summaries.

Teachers assigned each pair of students to one of two teams. Students earned points for their team by: (a) reading sentences without error in partner reading; (b) working hard and trying their best during retells; (c) identifying the correct subject and main idea during paragraph summary; (d) making reasonable predictions, reading half a page, checking predictions, and summarizing the main idea during prediction relay; and (e) behaving cooperatively. Points were awarded by tutors and teachers and were recorded by students on score cards. Each pair shared a score card. At the end of each week, they reported to the teacher the number of points they earned together.
Results of the study indicated that students with LD, students who were LP, and students who were AA in the PALS classrooms made significantly greater progress than their counterparts in the No-PALS classrooms. Specifically, these students outperformed their counterparts in the number of words correctly read in a 3 minutes across two passages (WC), the average number of questions correctly answered (out of 10) across two passages (QC); and the number correct maze replacements in 2 minutes (MC). Based on the Comprehensive Reading Assessment Battery (CRAB) scores students who are LD, AA, and LP made significant gains.

This study indicated that significant progress can be made from PALS for learners who were LD, LP, and AA. This approach could be a viable solution for working with students of varying abilities in their area of reading. Although PALS was effective for the majority of students, 20% of the students with LD who were the poorest readers and most disruptive had ineffective results from the PALS treatment. This finding suggests that students with severe LD may require intensive, individualize instruction from a specialist before profiting from peer-mediated strategies like PALS.

The final study by Mathes and Fuchs (1993) looked at the effects of classwide peer-mediated reading instruction on reading fluency and comprehension on students with LD in a resource room setting. They examined whether sustained-reading and repeated reading would achieve effective results when compared to a control group. Twelve upper elementary and middle school special education resource room teachers participated. The students consisted of 67 fourth, fifth, and sixth graders with learning
disabilities. An identification of LD required the students to have a discrepancy of more than 1 standard deviation between achievement and intellectual functioning. For the study, classwide peer-mediated instruction was conducted in the students' special education resource reading classes three times each week for 10 weeks during normally scheduled reading instructional time. The sustained-reading condition, where the tutee read orally from the assigned basal reading text continuously for 9 minutes while the tutor monitored word recognition errors, took 25 minutes per each session. Repeated readings, where students read three different passages three times for 1 minute at each reading while the peer tutor monitored word recognition errors, took 40 minutes per session. Students were paired with students who functioned near the same reading levels and read from the same text. Two points were rewarded for each sentence read correctly using the identical techniques that were used in partner reading (Fuchs, Fuchs, Mathes, & Simmons, 1997). The sustained-reading group, the repeated reading group, and control group each had 45 minute reading sessions.

Results from the CRAB was assessed before and after the 10-week implementation of peer-mediated reading instruction. The CRAB scores were based on: (a) the average number of words read orally in 3 minutes, (b) the average number of correct responses to 10 comprehension questions asked after a 3 minute timed reading of a story, and (c) the number of maze items replaced correctly on a 2 minute maze activity where students had to put in the correct vocabulary word of a story's passage that was blanked out. There was no significant differences between the
sustained reading group and repeating reading group on any of these scores. There was only a significant difference between the control and experimental groups on the number of words read correctly. This difference was relatively small.

**Summary.** Classwide Peer Tutoring in these studies showed that improvement in reading could be made by the majority of students in comparison to the conventional methods. The main reason this seems to be apparent was the fact that students were more actively involved with the academic material by being responsible for responding to their tutor/tutee. Also, the studies revealed that CWPT engages students in more oral and silent reading. Mathes and Fuchs (1993) did not notice significant improvement when using CWPT with their students comprehension skills probably because they did not use specific skills to teach comprehension in a CWPT format as did the study by Fuchs, Fuchs, Mathes, and Simmons (1997). Having students with LD as tutors for one another may also have bearing on how effective they are being tutored. Pairing students with similar abilities did not seem to be as beneficial in comparison to using general education peers or parents as tutors. The intentionally of pairing students with varying ability so that the stronger student is able to provide valuable feedback, should be considered when using this program. Further research of students who CWPT did not work for and the reasons why it was not beneficial in those cases should be explored.

**Spelling.** The procedures for CWPT when used to teach spelling are similar to the procedures for CWPT when used with reading. Students are assigned randomly to
one of two teams every Monday on which they remain for the entire week. Restructuring weekly teams assures that all children are on a winning team. The procedure requires 30 minutes so that each child receives 10 minutes of tutoring leaving 5-10 minutes to add and post individual team points. During the tutoring time, points are rewarded based on saying and writing the required spelling word given by the tutor. After orally spelling and writing the spelling word, the student repeats it back to the tutor. If it is correct, the tutor tells the child it is correct and awards two points. If it is not correct, the tutor spells it correctly from the list. The tutee then writes it correctly three times, earning one point, and continues on with new material. The teacher supervises the tutoring by moving among the students providing assistance and awarding bonus points to tutors for correct tutoring behaviors. Tutees are also given bonus points for responding immediately and for working cooperatively with their tutor. This procedure continues through the first 10 minute period after which the second tutoring period begins. Individual points are summed and reported aloud to the teacher following the last tutoring period recorded on a large team chart that produces the team totals. The winning team is applauded, as is the losing team for making a good effort.

Delquadri et al. (1986) conducted a study to explore the effectiveness CWPT would have of student spelling scores in comparison to traditional methods used. All that was mentioned about the sample used was that it was conducted with 3rd graders. The study found that third grader's spelling errors could be reduced to a range of 1 to
3 words out of 10 words for all students when the classwide tutoring system was used during the week. Using an ABAB reversal design, tutoring was demonstrated to be more effective in reducing spelling test errors than the teacher procedure, which included use of group instruction, a spelling text, and workbook. Overall, students in the class who, prior to CWPT, averaged more than 8 in 10 spelling word errors per week could perform as well as the other students when spelling was taught using classwide peer tutoring.

King-Sears and Cummings (1996) reported a study that looked at the effects of CWPT on 5th grade high, average, low achievers, and students' with LD achievement on their spelling tests. To monitor student progress, the teacher administered weekly pretests and posttests. Mean posttest scores increased for all groups. The high-achieving group's scores showed a 5% increase from their pretest to posttest, the average-achieving group's scores showed a 10% increase from pretest to posttest, the low-achieving group's scores showed a 20% increase from pretest to posttest, and the scores of students with LD showed a 35% increase from pretest to posttest after CWPT was implemented. Overall, the high achievers earned higher percentage A's, average learners went from a B to an A, and at-risk and learning disabled students increased from a F to a C.

Stanley and Greenwood (1981) did a study to examine the impact CWPT has on students spelling test scores. The study, implemented with 88 children in three third grade classrooms, showed that student's reduced errors on spelling tests when
CWPT was implemented regardless of whether tutoring occurred before or after the teacher’s methods of instruction. Also, direct observational data demonstrated that during peer tutoring, students’ academic behavior (i.e., writing, academic talk) were increased over baseline levels as well as the use of paper/pencil and worksheet materials used for writing and correcting tutored items. Also, implementing CWPT positively impacted student’s spelling score on standardized achievement tests.

Delquadri, Greenwood, Stretton, and Hall (1983) did a study to examine if increasing the opportunities to respond for all students in the regular classroom would have on their accuracy to spell words. They also compared how CWPT would effect students with and without learning disabilities ability to spell words. Twenty-four children (11 boys and 13 girls) in a self-contained 3rd grade classroom participated in the study. This classroom was located in an inner-city, low-income area. Three of the students were at or above grade level on the Metropolitan Achievement Test whereas the remainder were below average achieving levels. Six of the students, who attended a resource room class for reading and math, displayed beginning first grade level achievement. An experimental ABAB reversal design was used. During baseline (weeks 1-18) the instructor introduced 18 new spelling words on Monday. Through the week the students would work in their workbook and have a test on Friday. During CWPT (weeks 19-24) the same procedure implemented was identical to the previous studies except CWPT was only used for a 15 minute period daily. The tutoring phases lasted only 5 minutes per student, and 5 minutes were used for
collecting scores for the team point. Spelling tests over the 18 words were given on
Friday. Baseline was then reinstated on week 25, and CWPT resumed during weeks
26-27. Results showed that during baseline students with LD made an average of 9.0
errors out of 18.0 words during baseline. When CWPT was implemented their errors
decreased to a mean of 2.5 out of 18.0 words. The students with average abilities
made a mean of 3.0 errors out of 18.0 words during baseline. Their number of errors
also decreased to a mean of .5 words during CWPT. When baseline and CWPT were
reinstated students made the similar amount of errors as when the procedures were
used before.

**Summary.** In the area of spelling, Classwide Peer Tutoring proved to be
successful for not only students with LD but with general education students as well.
The number of students who failed decreased as students of all ability levels increased
their spelling scores. This increase occurred over a relatively short period of time.
One week after the implementation of CWPT showed student errors decreasing
dramatically. Again as with the reading, the interaction between the students increased
student’s time on task and involved in the desired behavior of learning. In all studies,
when the instructors reinstated their previous method of spelling instruction, the
students’ scores dropped to their previous levels. CWPT seemed to benefit all
students in comparison to the conventional methods used prior and during the
program.
**Math.** Maheady, Sacca, and Harper (1987) conducted a study to examine the effects CWPT would have on the math abilities of students with mild disabilities (MD) and without disabilities in high school mainstreamed classroom setting. All students involved in the studies were enrolled in a district wide program at a large urban high school in Buffalo, New York entitled Project Pass. This program was an experimental program where teachers were given smaller class sizes (15-20) and consultative services while accepting three-six students with (MD) into their classrooms. Ninety students (46 female and 45 male) in three 9th grade and three 10th grade mathematics classes participated. Twenty-eight of these students (15 male, 13 female) were identified as students with MD (learning disabilities or behavior disorders). Three to four times a week for 20-30 minutes, the students would work with their partner on a weekly practice sheets of 30 items created by the general and special education teacher. During this time, students took turns being tutor/tutee (reversing roles after 10-15 minutes) and asked each other questions from the practice sheets. The tutee was required to write and say the correct response. If the tutee was correct, he/she received 3 points. If the tutee was wrong but corrected the answer after the tutor provided it, than he/she received 2 points. No points were rewarded to the tutee if he/she did not correct him/herself. Bonus points were also rewarded for students who displayed good behaviors during the tutoring sessions. Weekly quizzes completed independently worth 20 points were also given on Friday that were related to the practice sheets. CWPT was withdrawn for 1 week during the math study resulting in
an ABAB design. During the baseline periods, the instructor used the traditional
classroom routine, but provided the practice sheets that could be used at school or
home to prepare for the 20 point weekly quizzes which were also implemented each
Friday.

Results showed that during baseline the 9th grade math groups’ mean
percentage correct for each class ranged from 50% to 82% with an average of 62%.
Interestingly, the test scores of the students with MD did not differ much from the
total class average. When CWPT was implemented, 16 to 27 percentage points were
gained for the total class and averaged 20.53 percentage points. Whereas 41% of the
students were failing (below 60%) their quizzes during baseline, only 5% failed when
CWPT was implemented. Also the percentage of A’s rose from 13% to 43%, only
one student without a disability failed, and only 4 (two of which were students with
MD) had D (below 70%) averages. Forty-four of the forty-nine students earned
grades of a C or above. The 10th grade math groups’ mean percentage correct for
each class had an average of 60%. When CWPT was implemented, 18 to 26
percentage points were gained for the total class and averaged 23 percentage points.
Whereas 49% of the students were failing their quizzes during baseline, none of the 47
students earned failing grade when CWPT was implemented and 18 (6 with MD)
maintained averages above 90%.

**Summary.** This study demonstrates that CWPT can be effective at the high
school level in the math area. The students with MD appeared to have similar
academic skills to their peers without disabilities. The effectiveness of this program with students with more varying degrees of skills should be addressed. Furthermore, the relatively small class sizes may have impacted the successfulness of the programs. Another area of consideration is helping students become independent learners instead of relying upon a tutor to test them on the information. Even when these practice sheets were provided, it did not seem as if many students took the initiative to practice the material on their own. Also, this procedure may not work in content area classes where information to be learned needs to be more comprehensive going beyond the factual information. This procedure would be difficult to use when studying for essay questions. CWPT definitely improved students' ability to master quizzes than the previous method of instruction. Tutoring seems to be a powerful technique in motivating students to achieve desired outcomes.

**Social Studies.** Maheady, Sacca, and Harper (1988) conducted a similar study to explore the effects CWPT would have on students' with mild disabilities and without disabilities social study test scores. The study was given at the same school and dealt with the similar student population as in the previous study. This study had 50 participants (27 males and 23 females) in the three 10th grade social studies classrooms. Fourteen of these students (7 males and 7 females) were identified with students with MD (learning disabilities or behavior disorders). Again similar procedures and time allotments were used as in the math study except study guides were used instead of math practice sheets. Also during the social studies study the
procedure was withdrawn for 2 weeks instead of the 1 week period in the math study.

The results indicated that the 10th grade social studies groups’ mean percentage correct for each class had an average of 66%. When CWPT was implemented, 19 to 27 percentage points were gained for the total class and averaged 22 percentage points. Before implementation 33% of the students failed their quizzes and after implementation of CWPT the percentage of A’s rose and only 5 students (10%) failed more than one quiz. No student earned below a C average. When CWPT was not administered, all classrooms scores dropped towards the initial baseline.

**Summary.** The social studies like the math study shows that CWPT can be used effectively beyond the basic skills of reading, spelling, and math. In the middle school and high school years, science and social studies are the main content areas where students with LD are usually included with their general education peers. CWPT may be a viable solution for teachers in the general education setting who are facing many students with unique needs. CWPT may compensate for the lack of ability to read and study at home as students are able to work with a peer and hear the information orally and speak the information orally for accuracy of understanding. Again, CWPT would probably not help students grasp abstract concepts that can not be learned by rote memorization. This study was also conducted with a small class sizes which may have bearing on the program’s effectiveness.

**Long-term academic success.** Greenwood and Delquadri (1995) examined if
CWPT would increase at-risk students' academic responding during instruction compared with a control group, and if the cumulative effect of greater daily academic responding during CWPT sessions significantly influenced growth in academic achievement and reduce the incidence of early failure. This study was conducted over 12 years, looking at at-risk learners receiving a 4-years of exposure to CWPT in reading, spelling, and math, as compared to with an equally at-risk control group and a nonrisk control group who received conventional teacher-mediated instruction. After controlling for initial first-grade differences in measured intelligence and achievement, the means of the CWPT group at the end of second, third, and fourth grades exceeded those of the control group on the Metropolitan Achievement Test. By fourth grade, the means of the CWPT and control groups were no longer statistically different. The study also looked at the longer term effects of sustained use of CWPT in elementary school at middle school, and high school in terms of standardized achievement, special education services received, and dropping out of school. It has shown that CWPT students continued to exceed the achievement test levels of the control group on the California Test of Basic Skills. By the end of sixth grade 416 students in nine elementary schools in one district of 35,000 students, 90 students had received some form of special service at the end of sixth grade. Analyses of services received by the 90 students through sixth grade favored the at-risk CWPT group. Fewer CWPT students had received special services, and of those who had, proportionally more had received less restrictive services, compared with the control group students.
Approximately 10 students overall (5 with LD) avoided special services because of early use of CWPT. Also more control group students received services in the special classroom or resource room compared with CWPT group students, who were more likely to receive itinerant teachers or in the mainstream. Furthermore, by 11th grade, drop out rates also favored the CWPT and the index group as seen by the following percentage of students who dropped out: Nonrisk control (9.3); At-risk CWPT (7.4); and At-risk control (13.0).

Summary. These findings suggest that in terms of long term gains, CWPT may provide the academic and social support for at-risk students need to be more successful and remain in school. The results also indicated that CWPT prevents students from needing more intensive special education services. More research should be done on students with severe learning disabilities to prove if CWPT is a preventative measure for them needing more intensive services.

Summary of Classwide Peer Tutoring

Classwide Peer Tutoring in the majority of the studies has been shown to be effective in the reading, spelling, math, and social studies content areas, and with students long-term academic success. CWPT not only was beneficial for students with LD, but was found to improve all students scores. In these studies, many students were not prospering from traditional instruction, and many were earning failing scores. CWPT, which allowed students to interact with peers on classroom material in a structured way, seemed to motivate the majority students to perform better. One
concern about CWPT however, is getting students to become more independent learners instead of relying upon tutors to provide feedback. In studies by Maheady, Sacca, and Harper (1987, 1988), these researchers learned when the students were provided with the practice sheets or study guides for the weekly quizzes, students did not use them effectively. These student scores only improved when using CWPT with the practice sheets or study guides. In the spelling studies, no focus was taken for students to have the initiative to study on their own. Another concern about CWPT is the lack of research available on students with severe LD. When students with LD level are at the first grade level or below, relying on a peer to meet this student’s needs may be asking too much. Overall, CWPT does appear to bring student success to the challenging population many educators are witnessing. With the ever decreasing attention span, wide variety of ability level, and increasing responsibilities; CWPT may be a means of providing students with the interaction and motivation they need as well as allowing the teacher time to meet with individual students.
Chapter 3

Methods

Teachers are facing the increasing challenge of providing an education to students at various academic levels in the classroom. Special education teachers have students who have not mastered the basic skills needed to become independent learners. In an inclusion setting, arranging services needed to help students on their basic skills is difficult. Instead of individualizing instruction in an inclusion room, students with special needs are expected to work on the general education curriculum with accommodations. Many of these students are not prepared to work on grade level material even when accommodations are provided. Furthermore, little support is provided for students with special needs in an inclusion setting. As a result, they receive fewer services than needed to succeed.

Restructuring the school setting so that students can be provided materials at their grade level, may be a solution to help give students the education they need. CWPT is a program based on reciprocal peer tutoring. It allows students to practice often and learn basic skills in a systematic, fun way.

Chapter three will examine the impact CWPT had upon students' with LD reading progress. Classwide Peer Tutoring (CWPT) is a program that was implemented to see if it has impact on students’ reading abilities. First, the sample of students that participated in the study will be discussed. Second, the setting where CWPT was implemented will be described. Thirdly, the measures employed will be
listed. Fourthly, the specific procedures used to implement the program will be
described. Finally, the results of the program will be explained, and conclusions will
be drawn from the results.

**Sample**

Eleven students (8 males, 3 females) participated in the study. All students
were receiving special education services for learning disabilities in the areas of
reading and written expression (many also met the requirements for math skills as
well.) They were all 5th grade students and ranged in ages from 10-12. Their reading
abilities on the Brigance ranged from pre-K to the 3rd grade level. The majority of
these students read at the beginning second grade level.

**Setting**

The setting for the study was a classroom. The room had traditional rows that
were in place during decoding words on the board or when explaining the CWPT
techniques. After the instructor’s explanation, students would turn toward their
partners moving their seats. This movement allowed students to see and hear what
their partner were reading. A few students chose to read on the floor. Twice on
Friday, the students partnered with students in the general inclusion room after
practicing on their passage two class periods. The special education teacher pulled the
students with LD out of their inclusion classroom for a 45 minute period. This pull-
out was typically done during reading and spelling because of the great differing ability
levels.
Measures

Four measures were employed in this study. The first measure, called the Correct Response Test, was given to observe how many words the students read correctly. A volunteer came in to pretest and posttest the students. The volunteer also tested each student once a week during the implementation of CWPT to record progress being made. The students would then read a passage for 1 minute from the series Reading for Comprehension. The volunteer would count up the number of words read and subtract the number of words read incorrectly (errors). Using the chart found in Appendix A, the volunteer would tabulate the correct response.

The second measure, called the Error Rate Test, was given to observe the number of words read incorrectly. This was tabulated using the same reading passage as used for the Correct Response Test. The volunteer recorded the number of errors made by the student while reading the passage for 1 minute. An error was made if the student substituted a word (said a word or word in place of the correct word), omitted a word (failed to read a word or words in a sentence), added a word (said a word or words that do not appear in the reading material), or hesitated on a word (paused longer than four seconds during reading). If a student corrected an error on his/her own within less than four seconds, then the word was counted as correct.

The third test, called the Comprehension Test, was a test given to observe how well the passage was understood. After the 1 minute reading, students were given time to finish reading the passage to answer four comprehension questions. The
questions assessed the areas of recall (remembering factual events from the story that occurred), sequence of ideas (remembering the correct order of events happening in the story), vocabulary (using the key words in the story to relate the events that took place), and relevance (using information pertinent to the passage read). A sample of questions asked were as follows:

VOCABULARY: What is a general?

SEQUENCE: What did Benjy want to do after Mr. Allen showed the boys where Valley Forge is?

RECALL: What was signed on July 4, 1776?

RELEVANCE: How would your life be different during the revolution?

The questions answered were evaluated on a 1-5 scale (see Appendix B). One meant the answer was poorly given, and five meant the answer was exceptional. A total comprehension score was figured by adding the scores the students received from the four questions and dividing them by four.

The fourth measure, called the Satisfaction Questionnaire, was an evaluation sheet (see Appendix C) given to students to share their feelings about the program. Two weeks after CWPT was implemented, students answered a statement by circling a number on a 1-5 scale. One meant they disliked the program, three meant the program was okay, and five meant they really liked the program. The following were the statements used to evaluate the students’ satisfaction on the program:

1. Reading with another person
2. Earning points
3. Reading 4 days a week
4. Reading with our class (resource room setting)
5. Reading with Mr. VanDuinen’s class (general education classroom)
6. Being test individually on progress
7. Marking point sheet
8. Reading sections more than once
9. Answering questions over reading
10. Reading for 10 minutes
11. Listening to someone read for 10 minutes
12. Overall feeling about peer reading

**Design**

The research design implemented to note progress made was a pretest/posttest design without a control group.

**Procedures**

First, before implementing CWPT, all the students were pretested using the Correct Response Test, Error Rate Test, and Comprehension Test.

Second, the students were divided into teams of two or three to award points for reading sentences correctly. This point system was currently being used in the classroom. Students received points by answering questions or exhibiting good behavior. Deductions of points were made for inappropriate behavior such as talking out of turn. Students were able to choose their teammates. In groups of two, every
thirty points earned allowed them to earn one small treat. In groups of three, every forty points earned allowed them to earn one small treat. When the group of two earned their maximum 110 points or a group of three earned their maximum 150 points, they tripled their small treat amount and then went back to zero. Students were able to move to a different group and split their number of points if the instructor gave them permission.

Third, the students were given direct instruction on CWPT. During this instruction, students were shown a Tutoring Point Sheet (see Appendix D) on an overhead, and the instructor demonstrated the role the tutor would have in marking the number of sentences read correctly. Specifically, they were taught that each time the tutee read a sentence correctly, he/she would earn two points. The tutee earned one point for correctly rereading a sentence after the tutor has detected an error. To correct a tutee when an error occurred, the tutor pointed to the word or words missed in the book and said it correctly. The tutee must repeat the word while looking at it and then reread the entire sentence. The students then were taught what constituted as an error. Substitutions, omissions, additions, and hesitations were explained and displayed on the overhead (see Appendix E). If neither the tutor or tutee could recognize a word, the student were given a Help Sign (see Appendix F) they would raise to get the instructors attention. Students were then told that four comprehension questions would be asked after reading a passage for 2-3 days.
Fourth, the daily procedure of CWPT was implemented four days a week, 45 minutes per day for four weeks. The students picked up a story and looked through they story. As they looked through the pages, they were told to raise their hands and spell orally any word they did not know how to read. The instructor wrote all these words on the board into different columns. The instructor would read all the words two times to the class, have the class read the words orally with her two times, point to words and have the students try to read them out of order, and then call on individual students to read all the words correctly for a point without assistance.

After everyone had the opportunity to read the words, the students then picked up a Tutoring Point Sheet, a Help Sign, and one washable marker per group of two. Students were able to team up with partners they felt comfortable working, though when students were individually tested the instructor arranged the students when a student was finished and replaced a tutee to be tested individually. Students were reminded of the pages that were to be read and to go back to the beginning of the passage when they got to the last word of the last page to be read. Students were also reminded that extra points would be awarded for the tutor and tutee performing their tasks adequately.

The tutees then read for 10 minutes as the tutors recorded their progress and corrected their errors. After this time period the students switched roles. During this time, the instructor went around to the pairs and commented on their tutoring/tutee abilities and awarded points to deserving pairs. After both partners read, the instructor
had the students straighten their desks and call out points when instructed. Every 20 sentences read, earned one point on their point chart. Then students who were sitting quietly were asked to clean their point sheets with a spray bottle and paper towel and return to class.

On the second day the same pages were read. The instructor again listed the difficult words in columns on the board. Students would earn a point by reading one column with no errors. Once a column was read correctly, no one could read it again until the other columns were read correctly. The students then engaged in CWPT for the passage.

The third day of reading the same pages was identical to the second day except the students were given four comprehension questions about the passage at the end of the period. They were to answer the questions in complete sentences. After the third day, a new passage was assigned to read, and the CWPT procedures continued on the subsequent days. Most stories were read for three days. On especially short stories, the pages were only read for two days.

Finally, posttests were given after four weeks of CWPT. The tests were given exactly like the pretests except a different passage was used. The students also completed the Satisfaction Questionnaire to share their attitudes toward CWPT.

**Results**

After completion of the testing, the scores students earned on the pretest and posttest measures were tabulated. Overall, student scores on the Correct Response
Test averaged to be 76.73 words read correctly at pretest and 79.36 words read correctly at posttest. Student scores on the Error Rate Test averaged to be 4.46 words read incorrectly at pretest and 1.0 words read incorrectly at posttest. Student scores on the Comprehension Test averaged to be 3.91 out of 5.0 on the pretest and 4.18 out 5.0 on the posttest.

Overall the students, on average, read 2.63 words more correctly than before CWPT, decreased their error rate 3.46 words, and increased their ability to answer comprehension questions slightly by .27. Four of the students made significant gains in using CWPT by showing a consistent gain of progress each week on the number of words read correctly. All of the students except two (who received zero errors during the pretest/posttest) went down in the number of errors they read. Seven of the students made gains in comprehension, while the remaining four went down.

The student responses to the Satisfaction Questionnaire were also tabulated. Student's ratings for each question are shown in the graph below.
All statements were favorably rated. What the students liked the most about CWPT were earning points, reading with another person, and reading for 10 minutes. Although these marks were also high, what the students disliked the most were reading with their general education class, marking the point sheet, and listening to someone read for 10 minutes. Eight out of ten thought CWPT helped them become a better reader with two responding “it sort of did”, and “it did a little”. Nine out of ten said they would like to read with a peer next year with one responding with “maybe”.

**Conclusions**

Overall, the results suggest Classwide Peer Tutoring had a positive impact on students’ basic reading scores. However, the intervention was short lived and additional time to implement the intervention is required. Based on the data found, slight improvements were made in all areas which suggests that further improvements may have been noted if the program was implemented for a longer time period. Although during the program’s implementation the students appeared not to be enthused in the reading process especially when in the tutee role, the evaluation sheet showed students liked the program. All the students enjoyed reading orally in class, and this program allowed them all to have an opportunity four days a week to practice reading. A few also did not demonstrate the mature behavior needed to be an adequate tutor and listen attentively to the tutees. Many also became frustrated with the task of reading along with the tutee and marking the sentences read correctly simultaneously. Perhaps additional training and changes to the point sheets may be
needed. Interestingly, the students appeared to be more satisfied reading with a resource room peer than with a peer from the general education room. This finding suggests that this program may work best when students are paired with others who possess like reading ability levels. Another consideration when implementing CWPT was that a volunteer from outside the school had to be arranged for the individual testing. The CWPT procedures did not allow time for the instructor to test individually while the students were reading. Possibly scheduling testing at other times of the day could be arranged. For many of the students, monitoring the students in their pairs was vital on their successfulness for them to remain on task.

Changes that would be implemented if CWPT were reinstated would be to carry out the program throughout the year 2-3 times per week. Four times a week was found to be monotonous at times. Furthermore, more reading materials would be available for each student to be working slightly above his/her reading level so that all students would feel challenged but not frustrated. CWPT was extremely easy to implement and to adapt to different reading materials. CWPT is program that solves the challenge of working with a high number of students with low academic skills when no additional help is provided.
References


APPENDIX A

Reading Rate Data Sheet
READING RATE
DATA SHEET.

Student: ___________________  Level: _____  Date: _____

This is based on a one-minute reading session on tutored materials.

Page: _______  Beginning Word: _________________________

Page: _______  Ending Word: _________________________

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1. Total Number of Words Read: ___________

2. Errors: ___________

3. Correct: ___________

Percentage Correct ___________ (#3/#1)

Correct Words Per Minute: ___________ (#3/1 minute)

Incorrect Words Per Minute: ___________ (#2/1 minute)
APPENDIX B

Reading Comprehension Evaluation Sheet
READING
COMPREHENSION
EVALUATION SHEET

Name: ________________  Level: _____  Date: _____

This is based on a one-minute reading session on tutored materials.

Page: _______  Beginning Word: __________________
Page: _______  Ending Word: __________________

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Total (Average)

Comprehension (Sum/4) = 1 2 3 4 5

DEFINITIONS OF
COMPREHENSION QUESTION AREAS

Recall: Remembering events from the story (factual information such as names of characters, places, and activities that occurred).

Sequence of Ideas: Remembering the correct order of events happening in the story.

Vocabulary: Using the key words in the story to relate the events that took place.

Relevance: Student uses information pertinent to the passage read.

Total Comprehension: This is a rating based on all prior questions and student performance related to the passage. It is the average of the four items above.

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APPENDIX C

Satisfaction Questionnaire
Name_____________________________

Circle a number 1-5 about how you feel about peer reading. 1 would be really disliked and 5 really liked.

1. Reading with another person  
2. Earning points  
3. Reading 4 days a week  
4. Reading with our class  
5. Reading with Mr. VanDuinen's class  
6. Being test individually on progress  
7. Marking point sheet  
8. Reading sections more than once  
9. Answering questions over reading  
10. Reading for 10 minutes  
11. Listening to someone read for 10 minutes  
12. Overall feeling about peer reading

Answer the following questions honestly.

1. How many days a week would you like to do peer reading? __________
2. Did you feel this helped you become a better reader? __________
3. Did you understand a section better after reading it a few times? __________
4. What would you change about doing it? __________________________
5. What did you like best about it? ________________________________
6. Would you like to read with a peer next year? ____________________
APPENDIX D

Tutoring Point Sheet
"TOGETHER WE CAN!"

**TUTORING POINT SHEET**

**STUDENT:** __________________  **DATE:** ___________  **SUBJECT:** ___________

**TIMES THROUGH:**  1  2  3  4  5  6  7  8  9  10

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APPENDIX E

Error Definitions
ERROR DEFINITIONS

**Substitutions:** Saying a word or words in place of the correct word or words.

**Omissions:** Failure to read a word or words in a sentence.

**Additions:** Saying a word or words that do not appear in the reading material.

**Hesitation:** Pausing longer than four seconds during reading.

**The Self-Correction Rule:** If a student corrects an error on his own within less than four seconds, count the word as correct.
APPENDIX F

Help Sign
GRAND VALLEY STATE UNIVERSITY
ED 695 DATA FORM

NAME: Susan Tucek

MAJOR: (Choose only 1)

- Ed Tech
- Elem Ed
- X Elem LD
- Ed Leadership
- G/T Ed
- Sec LD
- Sec/Adult
- Early Child
- Read/Lang Arts
- SpEd PP

TITLE: The Effects of Classwide Peer Tutoring on Students' with Learning Disabilities Basic Reading Skills

PAPER TYPE: (Choose only 1)

- Project
- X Thesis

SEM/YR COMPLETED:

SUPERVISOR'S SIGNATURE OF APPROVAL

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

1. Classwide Peer Tutoring
2. Learning Disabilities
3. Inclusion
4. Intervention
5. Basic Skills
6. Reading
7. Special Education
8. 
9. 
10. 

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

The effects that Classwide Peer Tutoring has on students with learning disabilities' basic reading skills was examined. Classwide Peer Tutoring is a program that allows students to engage more time in actual reading behavior with partner feedback.

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