A study examined the effect of the Reading Recovery program on the reading achievement of first-grade students. Subjects, 60 third-grade students in a Chicago public school with 97% Hispanic and 3% White student population, completed the Iowa Tests of Basic Skills. Test scores for the 30 students who were tutored using Reading Recovery lessons in first grade were compared to the scores of the 30 students who were not tutored. Results indicated that the students tutored in Reading Recovery did not obtain significantly different reading achievement gains compared to those students who received only classroom instruction. Findings affirm the goals of the Reading Recovery program which are to assist the lowest reading achievers in first grade to reach the median of their class and to maintain the rate of gain. (One table of data is included; 19 references are attached.) (RS)
THE EFFECTIVENESS OF THE READING RECOVERY PROGRAM ON READING ACHIEVEMENT

JOSEPHINE CURTIN
What is the effect of the Reading Recovery Program on the reading achievement of first grade students? Children at-risk of failing to learn to read is the subject of varied approaches to ensue beginning reading. Tutoring is not a new approach. It has gained renewed interest in recent years. A search for programs that are cost effective and reach the widest possible group of first graders most effectively are being advocated. The Elementary and Secondary Educational Act provides Chapter I funding focusing on prevention for at-risk early learners. Research findings suggest that remediation of learning problems is more effective at the first grade level and largely ineffective after the primary grades.

Because of cost factors involved in the one to one tutoring of the Reading Recovery Program it is of concern to search for evidence that the program effects the desired outcome. The goal of the tutoring program is to teach students at-risk of failing to learn to read and have them read at the average of their reading class. The children tutored are of limited English with Spanish the dominant language in the home.

Reading Recovery is an early intervention designed tutoring program to serve the lowest achieving readers in first grade. The program was founded and continues to be developed and refined by Marie Clay. Children receive daily thirty minute lessons from a program trained certified teacher. This tutoring is in addition to reading instruction in the classroom. The program aims to teach each child to use their knowledge to monitor their reading always using developed strategies to read increasingly higher levels of text. Children are selected through a program developed diagnostic test. They are in the bottom twenty percent of their classes. They are no longer tutored when they can read at the level of the middle reading group. After sixty or more lessons, without this reading ability level, the students are released from tutoring without having the "discontinued" label and are considered for other evaluations and resources.

Clay (1979) explained systematic observation of individual children reading and writing. She used scientific principles to record evidence of progress rather than relying on systematic testing. Clay (1979) explained her observing of reading behaviors:

When the performance is less than perfect there are opportunities to record the work done by the child to get it right, to puzzle
Curtin

it out. This reveals something of the processes by which the child monitors and corrects his own performance. When he encounters something new we can observe how he approaches the novel thing, and what he learns. (p.1)

The child corrects some errors using cues from the structure of the sentence or the meaning of the message, or visual cues of the letters or letter order. Clay (1979), described:

The learning work that goes on at these moments of choosing possible responses is captured in a running record. (p.12)

The running record is a marking system using checks for accurately read words. Errors and substitutions are written with the correct word below it. Self corrections and rereadings are indicated.

Over time these records of oral reading provide a cumulative record. These records can indicate placement appropriate for class groups. Critical decisions can be made concerning special assistance, promotion, or the need for a referral service.

Rinehart and Short's (1991) research of the program found that teachers were empowered to change the core of teaching using open-ended questions, categorical responses and analyzing information on individual children.

Weaver (1991) cited Reading Recovery as valuable in helping students with reading difficulties. He viewed the program as having potential using whole language in classroom instruction for developing readers, writers, and learners.

Opitz's (1991) study concerned the positive effectiveness of the Reading Recovery program and calls for further research on why the program works. More needs to be learned about the program and the way it serves the needs of students. "Comprehension and reading awareness enable readers to understand and have control over their own learning." (Opitz, 1991, p.401)

Clay (1985) believes reading progress is the ability to read increasingly difficult texts with 90% accuracy. The behavior recorded in oral reading is the basis for moving the child through different books at different levels at different speeds.

Using several modalities has been advocated for more than fifty years. Much attention has been given to tactile as well as visual and auditory approaches, and attending to tracing and writing words. LaShell (1986) designed a study to match instruction with student's learning styles. In the Reading Recovery Program the use of magnetic letters for word building, writing on magic slates, and even painting
letters, words, and messages, all encourage learners to reinforce verbal and auditory learning styles.

The use of connected text for teaching reading is empirically supported is cited by Opitz (1991). Harris and Serwer's research (1966) found that an important variable positively correlated with reading success was the amount of time spent reading connected to 'real text.' Opitz (1991) also summarized Stallings and Kaskowitz's research (1974). They "found that higher reading gains were positively related to time spent engaged in reading in first through third grade" (p.402). The results of studies designed to investigate the value of using rereading lend support for having children read a book more than once. The research of Herman (1985) found that rereading significantly increased comprehension.

Reading Recovery was piloted in hundreds of locations in three countries. Studies began in the 1970's in New Zealand. By 1979 the program studies of successfully tutored students, who were at-risk of failing to learn, were achieving good results. There was, however, no comparison control group. After three years of study at Ohio State University, a pilot study was conducted. The results in Ohio showed that Reading Recovery students received an average of 67 lessons during the year. Of these students 73 percent were successfully discontinued with average reading skills. Children performed better than the comparison group. The Reading Recovery tutored children in follow-up comparison studies, continued to be able to read significantly higher levels of text than the comparison group (Clay, 1985).

The tutor training is an extensive year long inservice of beginning tutors which gains these certified teachers nine hours of masters level credit and is followed by monthly continuing contact study sessions. To further understanding and insights in this tutoring program teachers evaluate and critique observed lessons behind a one-way mirror of one teacher and child in a demonstration lesson.

Wasik and Slavin (1993) evaluated their research of Reading Recovery and four other tutoring programs. The evaluation reviewed present day programs of one-to-one instruction. The tutors all were adults. These included certified teachers, paraprofessionals, or volunteers to students in first grade who are learning to read for the first time. Each one of the studies compared tutoring to traditional instruction with experimental and control groups. They chose to include all studies of one-to-one tutoring in a complete review of 16 published and unpublished studies.

The researchers were developers of the program Success for All (Madden, Karweit, Dolan & Wasik, 1992; Slavin, Madden, Karweit, Livermon & Dolan, 1990). Success for All is
a comprehensive school wide restructuring program serving disadvantaged students. The tutoring is integrated with the reading program and varied from eight weeks to the entire year by certified teachers. The findings stated contributed "powerful effects of the combination of tutoring, curricular changes, and family support services" (p.190). The low achieving first graders scored better than the second school in the study. There was no control groups.

Wasik and Slavin (1993) stated that no comparison should be made to the results of the three year study of Reading Recovery. Those results related to the lasting effect of first grade intervention. Success for All's results related to the effects of continuing intervention throughout the primary grades.

The authors of the studies program has many assessment tools comparable to those developed for Reading Recovery but, unlike careful and faithful implementation required in Reading Recovery, Success for All has not documented the consistency of their program at all sites or by all tutors. They recognize a need for further development of qualitative implementation data to validate the findings.

Prevention of Learning Disabilities, the third program discussed, emphasizes matching, copying, and recalled letters and words with little emphasis on reading for meaning. Certified teachers tutor for thirty minutes for three to five times a week. This study had an experimental group and control group. After a year, the findings were minimal at the end of one year. At the end of two years, using the TEACH program the students who were tutored on perceptual skills, without an emphasis in reading connected text had performed significantly higher than a comparison group tutored in phonics or a no treatment group (1977).

When in 1990 the study of these treatments was replicated, the results were negligible. Many factors resulted in disappointing effects of the TEACH program. Possibly the quality of the tutoring had been watered down, no inservicing of staff, and the lack of qualitative instruments to document and measure the on going use of the program influenced the less than desirable outcome.

In 1976 and 1978, using the Spache Word Recognition Scale, students were randomly assigned to either tutoring or no treatment control. Wallach & Wallach's program resulted in small differences of two months gain over the control group. However, the children were at grade level for one year of reading instruction on average.

The fifth program analyzed was Programmed Tutorial Reading. The tutors were paraprofessionals, volunteers, and parents. The students received fifteen minutes per day of tutoring and classroom reading instruction. The overall effects of the fifteen minute per day program were
in insignificant. The first study was in 1968. In 1971 a second study of this program had better results but differences in the program make it unclear as to the validity of the assessment. There possibly was a better experimental design or the results of differences in implementation of the program at different sites may have contributed to result effects. Unlike the comparisons group, Programmed Tutorial Reading students were taught tasks in tutoring that were evaluated on the test of the program effectiveness. Today, then is the issue of more authentic assessment which is reasonable and justifiable from a learner and teacher's point of view.

Wasik and Slavin (1993) discussed (Huck & Pinnell, 1986; Pinnell, 1988) study. They cited those results as significant. "Reading Recovery substantially outperformed control students on almost all measures" (p.185). They found that in the second and third year of the follow-up study of the same program the children had measured increases each year. Also to be noted, children who had more than sixty lessons, but were not discontinued failed to achieve at grade level and were still below grade level at the end of third grade.

Additional studies of the Reading Recovery Program discussed by Wasik and Slavin (1993) involved four Chicago elementary schools. Each had students randomly assigned to Reading Recovery or control conditions. At the end of the first year the results were comparable to the Ohio studies.

The most recent study was conducted by the Ohio State University (Pinnell and others, 1991). It evaluated the program and compared it to three alternative programs. There was a Chapter I pullout program used as a control group. The follow up evaluation the next October was the clearest indicator of the results comparing the four programs in this study. The most positive effects were found in Reading Recovery.

Wasik and Slavin (1993) cited issues they felt should be noted. The tutored children were evaluated in the manner which they were taught and were more familiar with assessment than children in the control group. The program results impressed the researchers because the effects were maintained for two years. The success of the teachers as tutors was directly related to the successful behaviors exhibited by children learning to read for meaning.

In discussing the merits of the five programs, Wasik and Slavin, (1993) did not "combine findings across studies in any way" (p.181). They did state that "Reading Recovery and Prevention of Learning Disabilities results have the greatest effects because their model of reading and delivery of instruction may be more effective" (p.190).
Reading Recovery has been found to be a positive but complex tutoring program of great importance. Though expensive, the program cannot be measured by cost alone, numbers served, and standardized test scores. Reading Recovery Program students' improvement in self-esteem, their love of reading orally in class, their parents' acknowledgment of the enthusiasm for reading displayed by their children, and the student's ability to self correct are of immeasurable importance. Continued research provides evidence that tutored children continue to read at the level of the median of their class.

Reading Recovery appears to be a concise theory of reading. The strategies taught maximize the learner's knowledge base and build on it. This one to one tutoring appears to be an effective means of preventing reading failure for first grade students.

Procedures

Population

The population in this study will be 60 students of a Chicago Public School. These children are 97% Hispanic and 3% white third graders. The relevant school characteristics include 90% low income status with a 48% limited English proficiency.

Thirty students will be selected who were tutored in the Reading Recovery Program and thirty who were not.

Iowa Tests of Basic Skills scores for reading comprehension will be collected from spring 1992. The scores of the Reading Recovery Program tutored children will be compared with children from the same group who were not tutored. The pre-post test control group design will be used to compare gain in pre-reading achievement at the end of second grade.

Findings will be tabulated in terms of the means and standard deviations. A t test will be used at the .05 level of confidence to ascertain whether there is any consequential difference between the mean scores. Gains in reading of both groups will be compared.
Findings of the Study

The samples for the study included 60 third graders of a Chicago Public School. The IOWA Tests of Basic Skills (ITBS) subtest scores for reading for 30 children who received Reading Recovery Tutoring and 30 who did not were compared for gains in reading achievement from first to second grade. A t test for a comparison of gains was done to determine if growth of achievement was statistically significant. The table summarizes the statistical analysis of the gains.

Table

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<th>MEANS, STANDARD DEVIATIONS AND T TEST FOR READING RECOVERY TUTORED GROUP AND CONTROL GROUP FOR READING SCORES</th>
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<td>Gains from 1992 to 1993</td>
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Not significant at the .05 level (2.002)

The examination of the difference in 1992 and 1993 scores in reading achievement was compared. The gains made by the Reading Recovery tutored first graders and the Control group were not significantly different. This find and other information is in the table. The conclusion is that when entering third grade the two groups are equivalent in reading achievement as of the Spring of 1993.

The 1993 mean posttest gains were 1.13 for the tutored group and 1.26 for those not tutored in addition to each group receiving regular classroom instruction. Thus there is no statistical significant increase above the non-tutored students nor a decrease in reading achievement for those who were tutored.

The t score for 1993 gains from the spring of first grade to the spring of second grade results (0.02) show no significantly higher or lower reading gains for the two groups.

Overall, the data leads to the acceptance of the null hypothesis: first grade students tutored in Reading Recovery will not obtain significantly different reading achievement gains than those with only classroom instruction.
In this study more follow up research to compare reading achievement at the end of third grade and to evaluate gains for students participating in the tutoring for following years needs to be added to this small study. The results affirm the goals of the program which are to assist the lowest reading achievers in first grade to reach the median of their class maintaining this rate of gain in reading achievement through third grade. These results confirm previous research. The continued evaluation of schools using this expensive program, assists in explaining the worth in comparison to its high cost, to provide the program. On an individual school basis, this also provides individual teacher-tutors with feedback and knowledge of the effectiveness of the ongoing efforts involved in this demanding program. Extraneous variables that effect individual achievement are pertinent for the entire student sample, experimental and control.
Bibliography


