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Effects of Intensive Intervention on Students At-Risk for Reading Failure

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Evaluation of a remedial reading program indicates that it may improve students' word recognition, silent reading performance, and attitude toward reading, as well as teachers' attitudes toward students with reading problems.

American public education is challenged with large numbers of at-risk students. Diverse curricular approaches have been advocated to address the growing problem of large-scale failure in school (Gutknecht & Gutknecht, 1997; Indrisano & Chall, 1995; Walker-Dalhouse, 1993). Many of the ills of society have been blamed on reading problems (e.g., chronic unemployment, dropping out of school, juvenile delinquency), and teachers have long been involved in adapting instruction to meet the needs of students at-risk of failure in key literacy skills (Hiebert, 1994; Marr & Allington, 1994; Sleeter, 1986; Smith, 1934, 1965). The causes for concern and their effects are widespread and pervasive.

When questions arise about how best to teach early reading skills, researchers recommend a few fundamental factors. According to the Committee on the Prevention of Reading Difficulties in Young Children (Snow, Burns, & Griffin, 1998), these include (a) using reading to obtain meaning from print, (b) having frequent and intensive opportunities to read, (c) being exposed to frequent, regular spelling-sound relationships, (d) learning about the nature of the alphabetic writing system, and (e) understanding the structure of spoken words. Further, they indicate that adequate progress in learning to read beyond initial levels depends on:

- having a working understanding of how sounds are represented alphabetically,
- sufficient practice in reading to achieve fluency with different kinds of text,
- sufficient background knowledge and vocabulary to render written texts meaningful and interesting,
- control over procedures for monitoring comprehension and repairing misunderstandings, and continued interest and motivation to read for a variety of purposes (pp. 3-4).

Efforts to improve reading and literacy skills also must avoid some pitfalls to be effective. There are three potential stumbling blocks that are known to throw children off course on the journey to skilled reading. The

first obstacle, which arises at the outset of reading acquisition, is difficulty understanding and using the alphabetic principle—the idea that written spellings systematically represent spoken words. It is hard to comprehend connected text if word recognition is inaccurate or laborious. The second obstacle is a failure to transfer the comprehension skills of spoken language to reading and to acquire new strategies that may be specifically needed for reading. The third obstacle to reading will magnify the first two: the absence or loss of an initial motivation to read or failure to develop a mature appreciation of the rewards of reading (Snow, Burns, & Griffin, 1998, pp. 4-5).

Most literacy scholars agree that the majority of reading problems faced by adolescents and young adults are the result of stumbling blocks, obstacles, and problems that could have been addressed during early elementary school years. Clearly, focusing on a few fundamental factors while avoiding challenges inherent in and/or created by faulty literacy instruction makes the most sense as a method for overcoming reading problems.

The reading program we evaluated is grounded in much of the research on effective reading instruction and tutorial programs (cf. Wasik & Slavin, 1993; Torgesen, 1995; Lerner, 1997; Lockavitch, 1998; Snow, Burns, & Griffin, 1998). Its primary goal is to provide a basic understanding of the reading process to nonreaders and those with pronounced reading difficulty by employing age-appropriate materials, promoting independence in reading, and using a consistent approach with repetition and immediate performance feedback. The program controls three factors critical for reading progress: repetition and practice within a meaningful context, using easy and predictable sentence structures, and meaningful story content.

As Vadasy, Jenkins, Antil, Wayne, and O'Connor (1997) indicate, some of these strategies have been incorporated in one-to-one tutoring programs that

are being used to prevent reading failure, such as Reading Recovery (Clay, 1985) or Success For All (Slavin, Madden, Dolan, & Wasik, 1996). These approaches vary in their emphasis on decoding strategies and reading of connected text, skills essential in programs for nonreaders and those with extremely low reading ability (Snow, Burns, & Griffin, 1998; Wasik & Slavin, 1993). Further, because of their high cost, programs, like Reading Recovery and Success For All that are delivered by specially trained and certificated teachers, are available to only a small portion of elementary school students needing supplemental literacy instruction.

The purpose of this study was to evaluate the effects of an intensive remedial intervention called, Failure Free Reading, on attitudes and reading performance. The Failure Free Reading approach offered several advantages over other special methods typically used with students at-risk of continuing and serious failure (e.g., Reading Recovery or Success For All). The program was designed for nonreaders and those with extremely low reading scores (e.g., number of words known ranges from 2 to 50, consistent performance below 50 percentile). Failure free reading was designed for small group instruction of children with the lowest reading levels using principles grounded in best practices in preventing difficulties while providing effective literacy instruction.

Method

Fifty-eight third and fourth grade students in two suburban schools used Failure Free Reading to supplement instruction for an entire school year. These were students whom teachers recognized as failing (i.e., lowest 10%) based on standardized test performance, curriculum-based measures, and weekly assessments of progress in grade level reading materials. Pretest and posttest comparisons of reading achievement and attitudes were completed with a control group to evaluate the effects of the program in each setting. Students from six classrooms were randomly assigned to participate in the Failure Free Program; classroom peers, with similar reading problems, participated in regular reading activities and served as a control group.

Procedures

The intervention was developed to give students with severe reading difficulties the opportunity to immediately experience success in appropriate age-and grade-level materials (Lockavitch, 1998). The materials were specifically designed to allow teachers to place non-reading students in age-and grade-appropriate short reading passages regardless of current levels of reading

performance. The program included a Teacher's Manual with scripted lessons and Instructional Readers and Independent Reading Booklets at varying levels of difficulty as well as Flashcards and Independent Reading Activities for additional practice. Three elements crucial to reading success were controlled: repetition, sentence structure, and story content. Lessons provided high rates of repeated reading in sentences structured without inverted phrases, dependent clauses, or incomplete thoughts that confuse and frustrate emergent readers. The use of multiple meaning words, figurative speech, and complex language in the content of each reading passage was also controlled.

The students participated in a maximum instructional period of 30 minutes daily with a teacher trained in the Failure Free Reading program. The approach reduces reading to its simplest form by controlling for context of the material, sentence structure, and story content. The primary instructional procedure involved: previewing material to be read, listening to the teacher read the material, answering factual, inferential, and leading questions, reading the material, and reviewing the material successfully. A typical session included literacy activities from the following groups.

1. **Teacher-Led Pre-Teaching Oral Language Lesson (5-10 minutes):** The teacher previewed material within a structured instructional lesson that set the stage for the students with a brief discussion of the very short "story" to follow (e.g., "Today we are going to continue reading our story about going to the park. Who would like to tell me what we have already read?") and other context-based activities. This lesson had a strong language development component, including introduction and explanation of new vocabulary as well as review of previously read words. The oral language lesson also included factual, inferential, and prediction comprehension questions. Factual questions covered specific story content to insure that students comprehended all aspects of the story, including vocabulary and theme. Inferential and leading questions were used to increase students' abilities to make meaningful context-based decisions and predictions. This lesson was used to show how sounds are represented alphabetically, to provide background knowledge and vocabulary to render written text meaningful and interesting, to illustrate the use of reading to obtain meaning from print, to teach the nature of the alphabetic writing system, and to foster understanding the structure of spoken words by relating material being read to a meaningful context (cf. Clay, 1985; Snow, Burns, & Griffin, 1998).

2. **Teacher-Led Guided Instructional Reading Lesson (10-15 minutes):** The teacher engaged students in instructional activities using targeted words, phrases, and sentences. Supervised oral reading practice was included and cloze activities, using single words and phrases (e.g., I am going to the ____), scrambled sentence activities (e.g., going am park I the to), matching activities (e.g., I am going to the [store park school].), and other similar reading recognition tasks were completed with teacher providing supportive and corrective feedback. Reading passages were designed to increase competence and confidence through increments in content. For example, a student started reading a brief phrase or sentence (e.g., Today we went to the park.). Each following sentence extended each preceding sentence (e.g., Today we went to the park with mother.) providing multiple occasions for practice. Frequent, intensive opportunities to read as well as high rates of fluency and supervised engagement within the context of vocabulary-controlled, high interest reading materials were the targets of this aspect of the program (cf. Clay, 1985; Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997).
3. **Independent Print-Based Practice Lesson (10-15 minutes):** Pencil and paper activities similar to those used during the guided instructional activities (e.g., cloze, scrambled sentence, and matching activities) were used to reinforce each lesson and provide practice in reading the same words in different types of contextual situations. Spelling activities were also included to reinforce relationships between reading and writing as well as provide additional exposure to sound-symbol relationships. (cf. Clay, 1985; Snow, Burns, & Griffin, 1998; Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997).

While these activities are often included in classroom reading instruction, their simultaneous application within a structured remedial program was a unique intervention for this group of students. The approach was designed to improve word recognition and comprehension performance by having students read controlled passages from a carefully scripted remedial reading intervention. While the importance of critical thinking, knowledge of elements of literature (e.g., audience, genre, authors), and other "higher level" literacy skills was recognized, improving "lower level" skills was deemed more important for the young children experiencing reading difficulties participating in this program.

Attitudes toward school and reading were assessed prior to and after participation in the program. The student attitude measure consisted of 15 statements.

Responses to the first 10 items (e.g., I really enjoy reading. I think I am a good reader.) were obtained on a 5-point Likert-type scale (1=never, 5=always); the remaining items requested students to "grade" their performance in academic areas (e.g., silent reading, reading aloud, spelling) compared to other students (1=worse than, 5=better than). Teachers provided their impressions of the same items for each student (e.g., [] really enjoys reading. I think [] is a good reader). Reliability estimates (i.e., coefficient α) were moderate to high for the total scale and contingent subscales.

Reading performance was assessed using Failure Free curriculum-based measures of word recognition and silent reading. The word recognition measure consisted of a random sample of 30 words included in the reading passages. The silent reading measure requested identification of correct answers to 10 questions derived from the instructional materials. Raw scores representing number of correct responses were tallied for students participating in the Failure Free Reading program and their control group peers. Control group students had no systematic exposure to the vocabulary in the test materials.

The students entered the program in September and were pretested using the attitude scales and curriculum-based measures. At the end of the school year, the students were retested using the same subtests. Comparisons of reading performance and attitudes were completed; the level of significance for all statistical tests was 0.01.

Results

Pretest student attitudes were similar for treatment ($M=48.74$) and control ($M=44.20$) groups. Posttest students attitudes were also similar for treatment ($M=51.11$) and control group ($M=50.00$) students. Treatment group and control group students' attitudes did not change from pretest to posttest.

Teachers rated pretest attitudes for students participating in failure free reading ($M=30.35$) and their peers ($M=28.80$) similarly. Their ratings of posttest treatment group attitudes ($M=41.28$) were higher than their ratings of posttest control group attitudes ($M=29.80$). No changes were evident in ratings from pretest to posttest for control group students; significantly higher attitudes, as judged by teachers, were evident for treatment group students.

Pretest word recognition scores were similar for treatment and control groups; posttest word recognition

scores were significantly different ($t=6.69$, $df=45$, $p<0.01$) for treatment ($M=25.54$) and control groups ($M=15.24$). Word recognition scores in both groups improved from pretest to posttest; treatment group word recognition scores improved more (90% compared to 35%).

Of course the treatment students had systematic exposure to the words being tested while the control students did not. Pretest silent reading scores were similar for treatment and control groups; posttest silent reading scores were significantly different ($t=5.95$, $df=38$, $p<0.01$) for treatment ($M=9.04$) and control groups ($M=5.71$). Treatment group silent reading scores improved from pretest to posttest; control group silent reading scores did not change. Again the treatment group was reading familiar passages while the control group was not. Similar outcomes were evident in both schools participating in this research.

Discussion

As Torgesen (1995) pointed out, professional knowledge of word-level reading problems has three implications for instruction. First, a body of research suggests that children at risk for failure need early direct instruction in alphabetic reading skills. Second, these students need direct instruction in integrating phonological skills in context in order to practice finding the correct pronunciation of words. Third, at-risk students need training in phonological awareness prior to, or simultaneous with, phonics and connected text reading. These implications are evident in the seminal work of the Committee on the Prevention of Reading Difficulties in Young Children (Snow, Burns, & Griffin, 1998) and evident as well in the Failure Free Reading intervention evaluated in this research.

Improving reading performance has received continuing interest in efforts to meet the needs of students at risk of school failure as well as in the schools' continuing commitment to see that all students learn basic skills (Snow, Burns, & Griffin, 1998; Wasik & Slavin, 1993; Wood & Algozzine, 1995). The purpose of this study was to evaluate the effects of a structured program designed to improve the reading achievement of elementary school students at risk for reading failure. Significant improvements in reading performance using vocabulary and reading passages from

the curriculum under study, were evident as a result of this intervention.

Vadasy, Jenkins, Antil, Wayne, and O'Connor (1997) suggested that "an intervention that provides instruction in phonological skills, letter-sound correspondence, and experience in text processing and writing can have a positive effect on at least some important reading and spelling skills" (p. 34). In this research, positive effects were achieved in two schools with a small investment of training time and little overall expense. The instructional approach evaluated here follows a simple, direct method using carefully constructed passages of connected text and addresses the disadvantages of many global tutoring programs (e.g., one-to-one instruction, extensive training needs, cost) by emphasizing the following: (a) group administration, (b) ease of use, and (c) cost-effectiveness. The practical effects of implementing this program are similar to those associated with broader, more expensive, more labor-intensive programs.

For example, in "An evaluation of Reading Recovery," Center, Wheldall, Freeman, Outhred, and McNaught (1995) reported posttest effect sizes ranging from 0.42 on the Syntactic Awareness Cloze Test to 3.05 on Clay's book level test. Effect sizes on comparable measures of reading recognition and silent reading ranged from 1.14 to 2.85 when students participating in this research were compared to control groups of their peers. These large effect sizes favored the Failure Free Reading approach on all outcome measures. While additional effectiveness research is needed, it appears that Failure Free Reading (as implemented in this study) can be successful with students who fail to profit in traditional reading programs. The benefits of this approach include the following: (1) simple, direct implementation using scripted materials that minimize the need for extensive teacher preparation and training, (2) systematic instruction grounded in components of effective reading instruction (e.g., repetition within a meaningful context, easy and predictable sentence structures, and meaningful story content), (3) carefully organized lessons building on key components of successful reading lessons (e.g., previewing material to be read, listening to material being read, answering factual, inferential, and leading questions, reading the material, and reviewing the material successfully).

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