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THE EFFECTS OF USING DIRECT INSTRUCTION AND A RE-READING CONTINGENCY WITH A HIGH SCHOOL STUDENT

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The purpose of this study was to determine the effectiveness of using re-reading as a consequence for failing to read passages rapidly with zero errors using the Direct Instruction approach with Corrective Reading, Skills Applications: Decoding C *(Engelmann, Meyer, Johnson, & Carnine, 1988). The participant was a 16-year-old high school student who read at a 7.2 grade level at the beginning of the study. During reading, he read slowly, made few errors and had close to perfect comprehension at the 7th grade level. The number of words read correctly, the number of errors made during an oral reading, and the number of times the student had to re-read the passage in order to correctly read the materials in 1 minute and 20 seconds was measured. An AB single case design was implemented to examine the effectiveness of Direct Instruction and the re-reading contingency. The results indicated that Direct Instruction and the re-reading contingency were effective in improving the rate of correct words read. The combined use of the re-reading and Direct Instruction is discussed.*

The two major rules of Direct Instruction are to *teach more in less time*, and to *control the details of what happens* (Engelmann, Becker, Carnine, & Gersten, 1988). Direct Instruction has been suggested as a way to improve the literacy of all children and adults (Carnine, Silbert, &Kameenui, 1990). It has been suggested that failing to acquire reading skills will adversely affect one's everyday life and may make it highly unlikely that one will enjoy an economically and socially successful adult life (Danziger & Gottschalk, 1995; Darby, 1996; Gersten et al., 1988; Hart & Risley, 1995; Sadovnik, 1991).

Systematic phonics instruction has been used widely over a long period of time with positive results, and a variety of systematic phonics programs have proven effective with children of different ages, abilities, and socioeconomic backgrounds. These facts and findings provide converging evidence that explicit, systematic phonics instruction is a valuable and essential part of a successful classroom reading program (Report of the National Reading Panel, 2000).

Direct Instruction and its skill application series, *Corrective Reading*, is a skill-based reading instruction program for students of all ages and levels. Systematic phonics instruction is designed to increase accuracy in decoding and word recognition skills, which in turn facilitate comprehension. However, it is important to note that fluent and automatic application of phonics skills to text is another critical skill that must be taught and learned to maximize oral reading and reading comprehension. This issue again underscores the need for teachers to understand that while phonics skills are necessary in order to learn to read, they are not sufficient in their own right. Phonics skills must be integrated with the development of phonemic awareness, fluency, and text reading comprehension skills (Report of the National Reading Panel, 2000).

The purpose of this study was to evaluate the effectiveness of the Direct Instruction Reading, *Corrective Reading Skill Applications: Decoding C* (Engelmann, Meyer, Johnson, & Carnine, 1988), on acquisition of reading skills, and the frequency of re-reads required to reach criteria of reading the passage in 1 minute and 20 seconds, with zero errors, using Precision Teaching with a 16-year-old high school student.

Method

Participant and Setting

The participant of this study was a 16-year-old high school sophomore. Data from the *Peabody Individual Achievement Test* (PIAT) revealed a grade equivalent of 7.2 for reading. He was enrolled in general education classes and attended a special basic skill class one period a day for 250 minutes each week. The classroom was located in an adjacent building from the main high school and was staffed by a certified special education teacher. The special education teacher created this class for all of the students in the high school who were judged to be at-risk for dropping out of school because of their below grade level performance in the basic skill of reading. This classroom has also been described elsewhere (Holz, Peck, & McLaughlin, 1996)

Dependent Variables and Measurement Procedures

The first dependent variable was the median number of words read correctly per day. Data as to the number of re-readings required to reach the criteria of reading the entire passage with zero errors in 1 minute and 20 seconds were also taken.

Experimental Design and Conditions

An AB single case replication design (Kazdin, 1982) was used to assess the effectiveness of the Direct Instruction-Corrective Reading text, *Skill Application: Decoding C* (Engelmann et al., 1988)

Baseline. The before phase consisted of presenting the student with the *Gray Oral Reading Test* (GORT) and the *Peabody Individual Achievement Test* (PIAT). The student read a story in the appropriate book and was timed for two minutes to see how many words were read and errors in the reading. The two-minute timing was reduced by one-third to calculate the 1 minute and 20 seconds.

Direct instruction and re-reading. Intervention was implemented from the Direct Instruction text. This program is a carefully planned and presented method for teaching reading skills. The lessons in the text are scripted for the instructor. *Corrective Reading, Skills Applications:*

Decoding C (Engelmann et al., 1988) starts with a review of word sounds, blends and difficult upcoming vocabulary words. Next, the student reads the story where the instructor prompts the student to correct any reading errors and asks the student the comprehension questions. The comprehension questions are located throughout the story in the instructor's manual. The questions are to be answered by the student without assistance from the book or the instructor. In order to finish a lesson the student has to read the story with zero errors and at the chosen rate. The certified teacher who was the supervisor of this class calculated the rate of 1 minute and 20 seconds. The student participated in three sessions per week. One session per week is approximately 50 minutes and two sessions per week are 100 minutes. Data were collected on the average of three times per week for a total of 5 weeks (approximately 15 sessions).

Results

During baseline, the number of correct words read during the timed readings was 284 (range 282 to 286). With the implementation of Direct Instruction, there was an increase in the number of words read correctly (*Mdn*= 289.5; range 286 to 300).

The average number of re-readings per lesson until the student could read the material with 0.0 errors in 1 minute and 20 seconds for baseline was 4 (range 3 to 5). For the Direct Instruction and Re-Reading phase, the number of re-readings increased for the student to reach the goal of 1 minute and 20 seconds averaged 5 and ranged from 2 to 15.

During baseline for the number of errors during timed readings was 1.0 (range 1 to 5). With the implementation of Direct Instruction, there was no median change in the number of errors (*Mdn* =1; range 1 to 3).

A Friedman Analysis of Variance (Siegel, 1956) was carried out on the data. A significant difference was found across phases ($r^2 = 13.857$; $df = 5$, $p = .02165$). Follow up tests using a Wilcoxon singed ranks tests were not significant.

Discussion

The data showed that Direct Instruction using the corrective reading materials was an effective method for improving the participant's reading skills. The student completed the *Peabody Individual Achievement Test* (PIAT) after the last day of data was taken for this study. He showed immense improvement from a 7.2 grade level to greater than a 12.9. This was a gain of over five years.

The student was willing to stay engaged when he found himself competing to decrease his time. The class that this student was attending was the last class of the day, which made an impact on his motivation for continuous work and reading. The number of re-readings increased by one as the first author intervened. These results could indicate nervousness during the timings because of the added pressure of this study.

This case study indicates that Direct Instruction using, *Skill Applications, Corrective Reading Decoding C (*Engelmann et al., 1988) was effective acquisition of reading skills. This student showed improvement in reading and enjoyed the competitiveness of the timings.

Systematic phonics instruction had a positive and significant effect on disabled readers' reading skills. These children improved substantially in their ability to read words and showed significant, albeit small, gains in their ability to process text as a result of systematic phonics instruction. This type of phonics instruction benefits both students with learning disabilities and low-achieving students who are not disabled (Report of the National Reading Panel, 2000).

Providing students with the necessary reading and comprehension skills has been suggested as a way to reduce school failure for many in America's schools (Gersten et al., 1987, Gersten et al., 1988; Howard et al., 1996; Lloyd et al., 1988 Sadovnik, 1991). Using Direct Instruction in an at-risk classroom setting is very important. The students in this setting have a need for structure and data based evidence so that they can have some confidence in their ability to succeed.

Direct Instruction procedures have shown improvement at all levels of reading. It has made a notable difference at the high school level. The goal for the students in this program is for them to reach grade level so they are able to be successful in all of their high school classes. Direct Instruction will not only increase test scores. It will give the students who need it the most the confidence to continue on in school. Students need curriculum that is supported with data so that they can believe in what they are doing. Once that happens they will be open to believing in themselves.

Finally, other research has shown that the combining of Precision Teaching measurement with Direct Instruction can assist students at the high school level (Holz et al 1996) and elementary school grades (Edmondson, Peck, & McLaughlin, 1996). It is our view and the data clearly support the use of Direct Instruction with children who are failing in reading, regardless of grade in school or circumstance.

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