Introduction

Despite large scale efforts to improve the reading achievement of students across the country, many students continue to struggle with reading. Teachers frequently experience difficulty improving student reading performance when using a haphazard approach to selecting instructional strategies.

One possible solution to the problem is to use a systematic approach to select appropriate instructional strategies. Brief Experimental Analysis (BEA) of oral reading fluency involves exposing students to various evidence based reading strategies in order to find the most potent approach at increasing oral reading fluency.

Research indicates that BEA of oral reading fluency can be an effective tool in selecting reading interventions for below grade level readers (Burns & Wager, 2008). In order to improve students’ oral reading fluency, a necessary element for comprehension, this study attempted to determine which intervention was the most effective for each individual student, allowing the student to eventually reach a new understanding of words rather than word recognition.

Method

Participants and Setting

Three second grade students from two different elementary schools in Eau Claire, WI participated in this study. Teachers familiar with the participants recommended the participants for the study, and recommendations were based on observed oral reading difficulties.

Each participant was matched with a college undergraduate student interventionist who was trained in how to implement different interventions and assessment techniques regarding reading fluency.

Sessions were conducted individually and took place in quiet rooms within the schools.

Procedure

The participant and interventionist had copies of the reading passages for each condition. A different passage was used for each trial in the study.

Phase 1 of the experiment assessed the oral reading fluency (CWPM, correct words per minute) in two baseline conditions: one using a first grade reading passage, the other using a second grade reading passage. Results from Phase 1 indicated whether 1st grade or 2nd grade passages would be used for the rest of the study.

Phase 2 of the experiment used an alternating treatments experimental design. The techniques used were:

- Repeated Reading: Participant read the passage four times, and data was collected on the fourth reading
- Listening Passage Preview: Interventionist read passage while participant followed along, participant then read passage twice and data was taken on the second reading
- Word Supply: Participant read passage aloud and interventionist provided correct word if participant made an error or was unsure of the word.
- Sentence Repeat: Participant read the passage aloud, and when reading error occurred interventionist provided the word for participant and participant was directed to repeat the sentence in which the error was made.
- Word Attack Hierarchy: Interventionist used a hierarchy of word attack skills when participant misread a word until participant correctly identified the word after a given word attack cue.

For each participant, BEA produced an intervention that increased CWPM when compared to baseline levels.

Results

For Participant 1, BEA indicated that Repeated Reading was the most effective intervention.

For Participant 2 and Participant 3, BEA indicated that Listening Passage Preview and Repeated Reading were equally effective and as a result the two interventions were combined.

CWM for all participants increased in the final baseline assessment compared to the initial baseline.

Discussion

BEA procedures produced interventions that dramatically increased oral reading fluency rates for all participants. Results of the current study demonstrate that BEA can be an effective way to determine individualized reading interventions.

One limitation of the present study was the use of CWPM as the primary dependent variable which does not examine other aspects of reading (e.g. reading comprehension).

Another limitation was the lack of control for other variables. For example, it is difficult to conclude that this set of procedures alone produced improvements in oral reading fluency. Improvements might also have been due to exposure to the general education curriculum.

Despite these limitations, BEA of oral reading fluency can be a viable supplement to typical classroom instruction.

Teachers looking for ways to provide individualized reading interventions may find BEA a useful tool.

Correct Words Per Minute in Baseline and Treatment Conditions Across Sessions

Presented at the University of Wisconsin – Eau Claire Annual Student Research Day, April 26-28, 2010