Training Individuals to Implement a Brief Experimental Analysis of Oral Reading Fluency
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Introduction

Brief Experimental Analysis
• Research in school psychology is focusing more on data-based decision-making and using data to choose academic interventions for students (Daly & McCurdy, 2002)
• One specific assessment tool to help make decisions for interventions is brief experimental analysis (BEA)
• BEA allows individuals to “test out” the effects of two or more evidence-based interventions on a target behavior (e.g., oral reading fluency) and use the data to choose the most appropriate intervention for each student

Statement of the Problem
• Although BEA is an effective and efficient tool to find an optimal evidence-based reading intervention that increases a student’s reading skills, the literature has yet to focus on the training of individuals implementing BEA of oral reading fluency (Burns & Wagner, 2008)

In the study, three different training conditions were evaluated using undergraduate volunteer students to implement BEA of oral reading fluency to elementary school students
• The three training conditions were evaluated to determine which one, if any, resulted in the highest treatment integrity (i.e., degree in which a treatment is implemented as intended)

Method

Experiment 1
Participants
• Eleven undergraduate volunteer students
• Each participant expressed an interest in becoming involved with a reading program conducted at two local elementary schools
• Participants were randomly assigned to one of the three treatment conditions
• None of the participants had any previous exposure to a BEA procedure

Setting
• Two local elementary schools
• School #1: 10 elementary students who were referred by the reading specialist as needing additional assistance in reading
• School #2: 5 students who were referred by the principal and classroom teacher as needing additional assistance in reading
• Five participants worked at each school on a given day
• The reading program took place two days per week
• At each school, a quiet area (e.g., empty classroom, library) was used for the participants to conduct the BEA of reading with the student

Measures
• Dependent variables: Percentage of protocol steps accurately implemented throughout the BEA of reading
• Percentage correct: number of steps implemented correctly divided by the total number of steps on the protocol checklist and multiplied by 100%
• Procedures
• Elementary students referred for reading problems were exposed to a protocol that included a BEA of oral reading fluency followed by an extended analysis utilizing one or more of the interventions from the BEA, based on the BEA results

Condition 1: Verbal and Written Information and Modeling (Training)
• Participants in Condition 1 were exposed to a 1-hour initial training session conducted by the researcher, which was used to provide participants with basic information about the BEA procedures
• During the training, the researcher demonstrated each intervention/protocol, showed how to graph data, implement the experimental analysis, and went over the general procedure of the reading program

Condition 2: Training + Rehearsal
• Participants in Condition 2 were exposed to the initial training session (e.g., verbal information, written information, modeling) as well as a rehearsal component
• For rehearsal, participants stayed after the training session and rehearsed the interventions/protocols with the researcher for ½ hour

Condition 3: Training + Rehearsal + Performance Feedback
• Participants in Condition 3 were exposed to Conditions 1 and 2 and in addition received performance feedback throughout the implementation of the BEA reading program
• Performance feedback was given immediately after each reading session by a School Psychology graduate student throughout the duration of the reading program (twice a week for one semester)

Data Collection
• School Psychology graduate students recorded the number of protocol steps appropriately implemented by each participant from the protocol checklists through reviewing audiocassettes of each session

Experimental Design
• Between Groups Design
• Comparison of group average of percentage of protocol steps accurately implemented between three independent training conditions

Experiment 2
The materials, independent variables, procedure, experimental design, and data analysis were identical to Experiment 1
• The researcher wanted to examine whether the use of direct observation when collecting data impacted results; therefore, in the second experiment audiocassettes were used to record BEA sessions

Participants
• Seven undergraduate volunteer students
• Each participant expressed an interest in becoming involved with a reading program conducted at two local elementary schools
• None of the participants had any previous exposure to a BEA procedure

Discussion
• The primary purpose of the current study was to extend previous research on training individuals to the context of BEA of oral reading fluency
• The participants displayed high rates of treatment integrity regardless of the training condition
• The results add to the research on effective training components for implementing interventions by suggesting verbal/ written information, modeling, rehearsal, and/or performance feedback can also be effective in the context of accurately implementing the BEA of oral reading fluency
• The present study provides preliminary evidence that training individuals to effectively implement a BEA of reading may be as simple as a 1-hour initial training session
• The current results also provide evidence that conducting a BEA of reading for elementary students who are identified as needing additional assistance in reading may be effective in increasing their oral reading fluency after 8-12 weeks

• Limitations
Although the study divided participants into one of three training conditions, individual differences of participants could not be completely controlled for
• There were no reliability checks on the graduate students who were observing the participants
• Participants had various background education and other experiences coming into the study (e.g., education majors, psychology majors)

• Conclusions
Using a brief training of individuals to conduct a BEA of oral reading fluency holds promise for school personnel looking for effective as well as easy to implement interventions for increasing elementary students’ oral reading fluency

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