

# Investigating the Consistency of Results Obtained from a Brief Experimental Analysis of Oral Reading Fluency

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## Introduction

- ❖ Brief Experimental Analysis (BEA) refers to a set of procedures that assess various interventions used to improve Oral Reading Fluency.
- ❖ BEA assumes that changes in instructional variables (e.g., interventions) can have a profound impact on student performance.
- ❖ BEA has made it possible for educators to quickly select interventions for Oral Reading Fluency by empirically identifying treatment conditions or teaching strategies that produce the highest levels of student performance (Burns & Wagner, 2008).
- ❖ Research on BEA of Oral Reading Fluency suggests that BEA can be used to directly link assessment to intervention (Burns & Wagner, 2008).
- ❖ Research has not examined the consistency of BEA of Oral Reading Fluency results over time.
- ❖ This study compared BEA of Oral Reading Fluency results for participants from two different assessment periods conducted four months apart.

## Method

- ❖ Participants were 12 elementary age students referred to an after school reading program because of poor reading achievement.
- Dependent Variable**
- ❖ Interventions tested in BEA Assessment
    - ❖ Baseline-student read instructional passage for 1 minute.
    - ❖ Repeated Reading (RR)- student was instructed to read passage four times (1 minute each time), with CWPM recorded on final reading.
    - ❖ Listening Passage Preview (LPP)- student listened to interventionist read passage for 1 minute, student read passage twice, with CWPM recorded on second reading.
    - ❖ Sight Words (SW)- student reviewed list of sight words five times (10 words selected from passage) with interventionist, read passage twice, with CWPM recorded on second reading.
  - ❖ RR+LPP in combination
  - ❖ SW+RR in combination
  - ❖ SW+LPP in combination
  - ❖ SW+LPP+RR in combination

### Procedure

- ❖ The independent variable was each participant's exposure to each BEA intervention, once in October and once in February.
- ❖ Each participant was exposed to BEA interventions for 2-3 days.
- ❖ During each session, Correct Words Per Minute (CWPM) were recorded by having the participants read an instructional-level reading passage for 1 minute.
- ❖ At the beginning of each session, students moved to a quiet area with a reading interventionist and completed as many BEA interventions as time permitted.
- ❖ BEA interventions were chosen based on the intervention that yielded the highest CWPM.

## Results

**Table 1**

*Empirically-Selected BEA Interventions Chosen During October and February Assessments*

Student	October 2010 BEA Intervention Chosen	February 2011 BEA Intervention Chosen
Andrea	RR+LPP	SW+LPP+RR
Carter	SW+LPP+RR	SW+LPP+RR
Holly	SW+LPP	SW+LPP+RR
Daniel	SW+LPP+RR	RR
David	RR	SW+RR
Joshua	LPP+RR	SW+RR
Marta	RR	RR
Michael	SW+RR	SW+LPP+RR
Rebecca	SW+LPP	SW+RR
Amanda	LPP+RR	LPP+RR
Ashley	SW+RR+LPP	LPP+RR
Audra	RR	SW+RR+LPP

**Table 2**

*Changes to Empirically-Selected BEA Interventions from October to February Assessments*

	N(%)
Addition of One Intervention (e.g., RR to RR+SW)	4(33.3%)
Addition of Two Interventions (e.g., RR to RR+SW+LPP)	1(8.3%)
Subtraction of One Intervention (e.g., RR+SW to RR)	1(8.3%)
Subtraction of Two Interventions (e.g., SW+LPP+RR to RR)	1(8.3%)
Changing of Intervention (e.g., RR to LPP)	2(16%)
<b>Change</b>	<b>9(75%)</b>
<b>No Change of Intervention</b>	<b>3(25%)</b>

## Discussion

- ❖ Results indicated that for 9/12 participants, the empirically-selected BEA intervention changed from October to February assessment.
- ❖ It is likely that individual differences in participants contributed to the changes in BEA interventions selected. The results are not surprising, given BEA assessment is used to empirically select individualized interventions.
- ❖ These results suggest practitioners using BEA should consider conducting BEA assessments at least every four months.
- ❖ This study was limited by the small sample size.

## References

Burns, M. K., & Wagner, D. (2008). Determining an effective intervention within a brief experimental analysis for reading: A meta-analytic review. *School Psychology Review, 37*, 126-136.



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