INTRODUCTION

Children with language impairment often struggle to learn to read (Kamhi & Catts, 1999). Instruction in decoding can facilitate success, particularly when children are given appropriate graphophonemic feedback when reading aloud. Bernstein et al. (2003) included 96 2nd graders with reading disability in a study of graphophonemic training vs. meaning-based instruction. Unassisted decoding ability resulted from graphophonemic training. Pulver et al. (2005) administered graphophonemic training & reading practice to a group of 9 RD first graders. Newword decoding increased from 47% to 87%. Standardized testing results were not reported. Kouri, Selie, & Riley (2006) compared a graphophonemic-based treatment to one that was meaning-based. Two 2nd graders with SLI and a typical developing group word recognition increased for both groups. A "no treatment" control group was not included.

Two of the many categories of reading literature are:

1. Authentic Literature (Brown, 1996/2000) with detailed plots & Characters, complex language and discourse, and no limits on word choice or sentence structure.
2. Decodable Texts (Jenkins et al., 2003) that progress in complexity and provide multiple opportunities to practice graphophonemic skills.

Beverly, Gies, & Buck (2006) found no differences among 3 reading interventions with a group of 32 first-graders (all reading levels).

Treatments consisted of (1) Graphophonemic training plus decoding text reading practice; (2) Graphophonemic training plus listening to literature read aloud; and (3) listening to authentic literature read aloud.

Reading disabled children, but not typically developing children, showed significant gains in comprehension when provided with decodable texts.

The role of decodable texts for children who present specific language impairment (SLI) and reading disability (RD) has not been clearly established.

This study combined the use of graphophonemic feedback during reading decodable texts about: (a) no treatment "control" group was included to avoid the treatment effect.

STUDY PURPOSE

Will children with SLI and RD who receive 12 sessions of intervention using decodable texts and graphophonemic feedback show significant gains following treatment compared to children with SLI and RD who do not receive treatment? Three sets of dependent variables were included:

(a) word recognition measures;
(b) standardized tests of reading;
(c) non-reading measures of memory and non-word repetition.

Changes in reading were predicted, but non-reading measures were included to assess treatment specificity.

PARTICIPANTS

15:1 Stutter & 2nd Graders, SLI & RD, 10 Boys & 5 Girls

Pre-Experimental Measures Treatment Group (n = 6) Delayed Treatment Group (n = 5) No Treatment Group (n = 4)

Age
Mean Range
7.6 6.11-8.4 7.8 6.7-8.6 7.4 7.0-8.2

Letter MFR Range
104 87-127 89 83-107 92 83-107

CELF-4 Mean
67 50-79
76 66-84 68 50-79

GORT-4 Mean
72 64.79
77 67.68 70 55-79

TIMELINE: Treatment Group, No Treatment, & Delayed Treatment

TREATMENT SCHEDULE: 12 Sessions, 30 min of reading feedback

SELECTED REFERENCES


ACKNOWLEDGMENTS: For the purposes of recruiting and data collection, we thank the many children, families, local schools, agencies, and professionals who cooperated.

We also recognize Stephanie Gerlich, a research assistant supported by the University of South Alabama’s Summer Undergraduate Research Program 2008. Stephanie assisted with treatment administration and served as a reliability judge.

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STATISTICAL ANALYSES: MANOVAs revealed Time X Group interactions (p < .05) for 3 word recognition measures and GORT-4. Time 1 tests, which did not differ between groups, were covariates T2&3.

FINDINGS & DISCUSSION

Three sets of measures were given to assess treatment effects:

1. Word Recognition measures revealed significant gains immediately following treatment.
2. Gains represented children’s improvements in graphophonemic knowledge, the skill targeted during this intervention.
3. Word recognition gains on the TOWRE nearly doubled, 35% to 64%, except No Treatment group, 22% & 21% pre- to post-test.
4. GMV evidence that gains continued beyond treatment. On the baseline test with Preventing Academic Failure (PAP), Bernstein & Perlman, 1998 and the Merrill Readers, TG did statistically significant increases 4 weeks after treatment end.

5. TG also had significant increases for phonological awareness on CTOPP, skills known to improve with reading and spelling.

2. Gains in overall reading had clinical relevance.
3. DT group scores moved from below average at pre-test to average at post-test on the GORT-4 Oral Reading Quotient.
4. Children in TG would no longer qualify for school-based reading services based on post-test scores on the GORT-4.

3. To establish treatment specificity, 2 CTOPP subsets, Memory for Digits and Nonword Repetition (NWR), were administered. No significant gains, except WNR for DT group post-treatment.

Theoretical Implications:

Findings that could support a Simple View of Reading (Gough & Tunmer, 1986)

- word recognition plus comprehension for successful reading
- increased word recognition results in increased comprehension
- treated groups showed gains in comprehension, although comprehension was not practiced as part of the treatment and decodable texts, the Merrill Readers, had no context clues.
- findings that suggest some children have a Double-Deficit (Bowers & Wolf, 1993) impacting word recognition weaknesses.
- DT group made the greatest gains overall
- DT Time 1 scores highest, although not significantly different overall, except for CTOPP Rapid Naming subtest (T1 M = 97)
- Perhaps DT children demonstrated decoding deficits but not rapid naming deficits. Given decoding treatment, this group showed maximum benefit.
- Children in other groups may have presented with double-deficit in phonological ability and naming.

Primary limitation was the lack of a blind investigator. The first author served conducted assessments and the treatments.