

How Effective are Spelling-Related Interventions for Children with Spelling Difficulties? A Meta-Analysis

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Introduction

Spelling matters

 100 % of respondents in a sample of State Human Resources directors tell us that spelling matters (National Commission on Writing for America's Families, Schools, & Colleges, 2005).

- Problematic translation of ideas
 - One of the reasons is due to spelling deficits (Singer & Bashir, 2007).
- Poor spellers may restrict what they write to words they can spell (Moats, 2005).
- Technological advances are limited in detecting errors (Moats, 2005).

Introduction

- Spelling is a high valued and highly difficult skill (Wanzek et al., 2006).
- One of the most common problems of children with learning disabilities is spelling (e.g., Berninger et al., 2008; Darch, Kim, Johnson, James, 2000).

Rationale

- We do not know of any meta-analysis conducted on spelling intervention among children with spelling difficulties / learning disabilities.
 - Wanzek et al. (2006) synthesis.
 - 3 other prior reviews are also syntheses (Fulk & Stormont-Spurgin, 1995; Gordon, Vaughn, & Schumm, 1993; McNaughton, Hughes, & Clark, 1994).
- To provide researchers and policymakers with upto-date estimates of gains made by children with spelling disabilities as a result of interventions.

Research Questions

- 1. How effective are reading and/or spelling interventions for ameliorating spelling difficulties in poor spellers?
- 2. What is the effect of duration on the effectiveness of interventions on spelling outcomes?
- 3. To what extent are variables related to study quality, namely, treatment fidelity, associated with study outcomes?

Our Search Strategies

Phase 1

- Descriptors
- Boolean combinations (Wanzek et al., 2006)
 - reading, spelling, spell*, writing, reading disabilities, writing disabilities, and writing dis*.
 - Year: 1995-2009.
 - 34 records were found in this search.

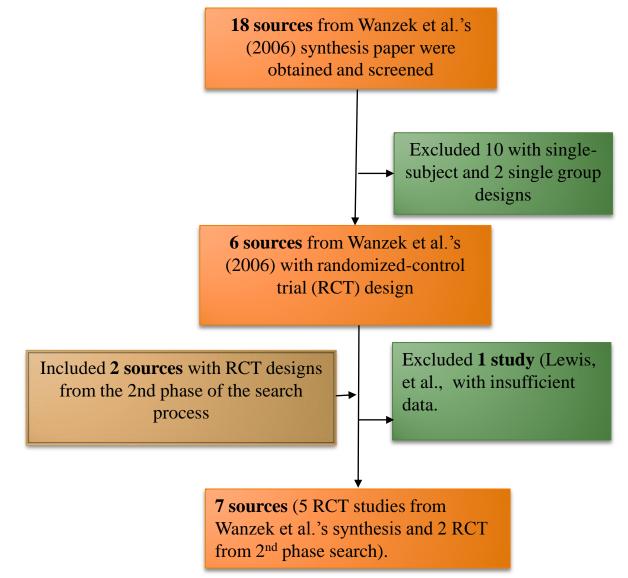
Phase 2

- keywords
- Boolean combinations
 - spell* OR spelling AND learning dis* OR disorder OR dyslex* AND reme* OR inst* OR inter*.
 - Year: 1995 and 2009.
 - 357 records.

Inclusion Criteria

- 1. Only peer-reviewed literacy-related publications on spelling and/or reading interventions were selected.
- 2. Participants were in Grades 1 to 12 or the participants' age range was within the school-going age.
- 3. Participants included in this review were those who experienced spelling difficulties, were at risk, struggling, or learning and/or reading disabled.
- 4. Studies which did not specifically target at ameliorating spelling outcomes (i.e., reading) but provided clearly disaggregated spelling outcome data were included in the meta-analysis.
- 5. Statistical information for the calculation of effect size was present.

Flowchart of Selection Process



Selected Studies

- All are treatment-comparison studies.
- Common outcome: Spelling performance
- 38 effect sizes