Comparing Phonics Instruction That Uses Pseudowords vs. Real Words to Increase Decoding Abilities
Heather Karchefske, B.S., Abbie Olszewski, Ph.D., CCC-SLP
University of Nevada, Reno

Introduction

- Literacy is the foundation for learning in the elementary school years.
- Children who begin to fall behind in their reading ability early in life continue to struggle into adolescence and adulthood and may never catch up to their peers (Cardenas, 2009).
- It is within a speech-language pathologist’s (SLP) scope of practice to treat literacy disorders.

Clinical Scenario

I am a graduate student clinician at the University of Nevada, Reno. I am working with a nine year old, 3rd grade student who has difficulty sounding out (decoding) words and often substitutes whole words with words that share similar letters.

- He has been diagnosed as having a specific learning disability with an impairment in reading. This semester I have focused on improving his decoding and phonics ability.
- I am curious if pseudowords or real words are more effective in teaching decoding.

Clinical Question

In elementary children who struggle with reading, does phonics instruction using pseudowords improve decoding skills compared to phonics instruction using real words?

Methodology

Search Terms: Decoding, phonics, children, literacy, pseudowords, and real words

Databases: JSTOR, SAGE, Web of Science, and PLOSone

Interrater reliability: Articles had a reliability of at least 87%

Appraisal: 4 articles were selected based on relevance to the purpose of this study

Gillam Form: Suggestive (7-8), Compelling (4-6), Equivocal (0-4)

CASM Form: Suggestive (9-11), Compelling (5-8), Equivocal (0-4)

Results

<table>
<thead>
<tr>
<th>Authors, Year, Design, Rating</th>
<th>Purpose</th>
<th>Participants (N, Age, Diagnosis, Group)</th>
<th>Dependent Variable</th>
<th>Results</th>
</tr>
</thead>
</table>
| Blachman, Ball, Black, & Tangel, 1994 | Investigate the effectiveness of instruction in phonological awareness provided by kindergarten teachers and their teaching assistants. | N = 159
Age: average 5.63 years
Dx: typically developing
G1: experimental (phoneme awareness) G2: control (no intervention) | Phoneme awareness | WRMT-WI:
At posttest, no significant difference between G1 and G2 (F(1, 156) = 0.09, p = 0.8087).
Phoneme awareness:
Children receiving phoneme awareness activities were able to read a higher number of phonetically regular words (f(157) = 6.1, p < 0.0001) and nonsense words (f(157) = 5.9, p < 0.0001) than the control children. |
| Cardenas, 2009 | Investigate the effects of a phonics curriculum using pseudowords on students' success in phonetic decoding. | N = 30
Age: average 5.58 years
Dx: 23% had learning disability, attention deficit disorder, or speech delay. The remaining were typically developing.
G1: experimental (PPC and regular phonics) G2: control (regular phonics) | Phonemic decoding | |
| Fletcher & Knaffle, 1981 | Usefulness of nonsense words versus real words in teaching phonics to high and low readers. | N = 18
Age: first and second graders
Dx: typically developing
G2: high reader (patterns 1-3 real words, patterns 4-6 nonsense words) G2: low reader (patterns 1-3 nonsense words, patterns 4-6 real words) | Transfer | G1 read real words better than nonsense words.
G2 read nonsense words better than real words.
There was a significant interaction between reader level and type of word (F=4.99, df=1, 16, alpha set at .05, p-value not reported). |
| Galuschka, Ise, Krick, & Schulte-Köme, 2014 | Effectiveness of treatment approaches of reading and spelling performance and the efficacy of these treatment approaches. | N = 22 RCTs
Age: children and adolescence
Dx: children with reading disabilities whose reading performance was below the 25th percentile or at least one standard deviation, one year, or one grade below the expected level. | Reading performance | |

Discussion

External evidence: It was found that by using pseudowords to teach phonics, children can focus more on the sound-symbol relationship within words and not rely on other compensatory strategies (Cardenas, 2009; Fletcher & Knaffle, 1981). Both real words and pseudowords improve decoding skills and positively impact reading performance (Blachman et al., 1994; Galuschka, 2014).

Evidence internal to clinical practice: My supervisor supports either type of word in teaching phonics to improve Pete’s decoding skills. I feel comfortable using both pseudowords and real words in his phonics instruction.

Evidence internal to client: Pete wishes to read at grade level. The family believes any phonics instruction will improve his decoding skills and reading ability.

EBP Decision: Although the evidence does not examine struggling readers, it is likely that using pseudowords in phonics instruction could benefit Pete. We decided pseudowords will be used in his phonics instruction twice a week, for six weeks to develop and strengthen his decoding skills without reliance on memory. The next six weeks, real words will be used in his phonics instruction. His decoding ability will be re-evaluated after three months to assess decoding progress.

References


Conclusion

- Phonics instruction using pseudowords is an effective strategy for improving decoding skills in students with reading difficulties.
- It is important to tailor instruction to the needs of individual students to maximize their success in phonetic decoding.