

# Phonemic Awareness Training for Speech/Language Impaired First Graders

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## BACKGROUND

- A large body of research states that phonological awareness is a precursor to later reading achievement.
- Studies also identify that 90% of children with speech and/or language disorders are at risk for reading impairments, including poor phonological awareness.
- Programs implementing a balanced program including phonological awareness and phonics instruction demonstrated appropriate gains and progress.
- ASHA (2000) has stated that speech-language pathologists play a critical role in preventing and remediating reading difficulties in children.
- Coordination between professionals is one of the key elements involved in providing effective service.
- Currently, no study addresses individual phonological awareness and phonics treatment for speech and/or language impaired students following classroom intervention.

## PURPOSE

- To determine the effects of individual phonological awareness and phonics training for three speech and/or language impaired children who did not make substantial gains following a classroom phonological awareness program.

## PARTICIPANTS

- 3 speech and/or language impaired first grade students who made little gain during classroom phonological awareness intervention in Kindergarten.
  - Subject A Expressive Language Delay
  - Subject B Articulation Delay
  - Subject C Receptive/Expressive Language Delay with Memory Deficits
- Students scored at least 1.5 SD below the mean on the Preschool Awareness Literacy Screening (PALS), 2 SD on PAT

## INTERVENTION

- Instruction provided by speech-language pathologists and a Reading Recovery teacher
- 30-minute sessions 3 times per week for 10 weeks during fall semester 1<sup>st</sup> grade

## INTERVENTION

### Multiple Baseline Across Behaviors

#### Behavior I: Phonological Awareness

- Dependent Variable: CVC & C-V-C production
- 75% accuracy on blending and segmenting before beginning Behavior II

#### TRAINING

- Identify initial phonemes
- Identify final phonemes
- Blending phonemes: Onset-rime, CV, VC, CVC
- Segmenting phonemes

#### Behavior II: Phoneme-Grapheme Correspondence

- Dependent Variable: Production of sound when given letter
- 75% accuracy in two measures with clinician judgment of mastery required before beginning Behavior III
- Baseline data collected once a week during Behavior I treatment

#### TRAINING

- Taught all unknown phoneme-grapheme correspondences
- Two new correspondences introduced each session
  - Introduce phoneme
  - Discrimination
  - Introduce corresponding letter
  - Practice correspondences

- Training emphasized the acoustic, motoric, and alphabet properties of phonemes.

#### Behavior III: Decoding & Spelling

- Dependent Variables: CVC word production and spelling of CVC word
- Baseline data collected once a week during treatments I and II

#### TRAINING

- Decoding
  - Letter tiles
  - Move fingers across visual cue
  - Note cards
  - Little Books
- Spelling
  - Listen to individual sounds
  - Spell

## RESULTS

### Blending and Segmenting

- Treatment was effective in teaching phoneme blending and phoneme segmenting
- Magnitude of improvement differed based upon previous abilities

### Phoneme-Grapheme Correspondence

- Individual phoneme-grapheme correspondence training was effective in teaching sound-letter correspondence
- Vowels were most difficult for all subjects

### Decoding and Spelling

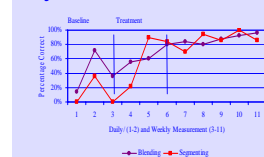
- Individual decoding and spelling training was effective in teaching reading and spelling
- Baselines exhibited a gradual rise due to generalization of skills

### Comparison to Class on PALS Spelling

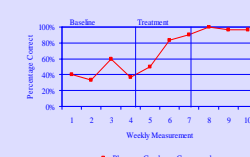
- Subject A near class mean
- Subjects B & C considerable improvement but still behind

## Phonological Awareness

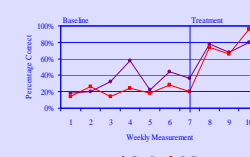
### Subject A



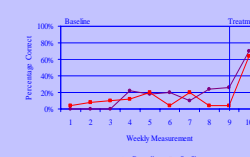
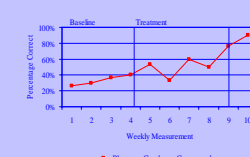
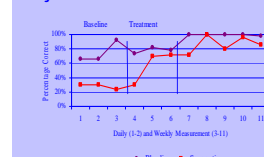
## Phoneme-Grapheme Correspondence



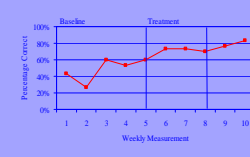
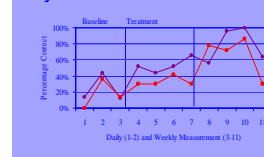
## Decoding and Spelling



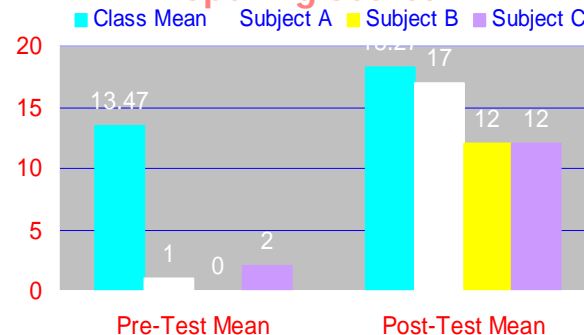
### Subject B



### Subject C



## Spelling Scores



## DISCUSSION

- Individual training provided:
  - Structured, repetitive practice
  - Explicit instruction, increased feedback
  - Increased time for learning skills
- Professional coordination that intensely targeted the same goals using the same method of treatment was effective
- Scores remained high after treatment was terminated during the maintenance phase
- Skills still below age-commensurate levels
- Displayed higher level of improvement than peers; thus, performed at levels much closer to age-related peers
- Confidence levels boosted
- Children with speech and/or language impairments are at increased risk for developing reading difficulties, but teaching functional auditory and alphabet principles is effective if addressed early
- Incorporating all aspects of phonemes may be beneficial
  - Acoustic properties
  - Motoric properties