Children who have a phonological (i.e., speech sound) disorder often also experience challenges with phonological awareness. Both impact their literacy development. Traditional intervention approaches focus on speech production practice, which, although effective, does not address the phonological awareness component. This study investigated the impact of teaching phonological awareness on speech production.

**Aims & Methods**

- **Aims:** To test if a phonological awareness approach increases accuracy of speech sound production. To compare the phonological awareness approach to Hodson's cycles approach. To observe any positive impact on phonological awareness skills.

- **Participant:** One three-year-old boy with a phonological disorder who attended 17 therapy sessions at our Center for Communication Disorders.

- **Methods:**
  - Initial baselines assessed the participant’s phonological skills.
  - Targets (initial /f/, /p/, /s/, and /k/) were selected based on these assessments.
  - The /f/ and /p/ sounds were targeted using the phonological awareness approach. The /s/ and /k/ sounds were targeted using Hodson’s cycles approach. Awareness and production were both targeted within a session.
  - Speech production probes measured accuracy of all 4 target sounds throughout the treatment period.

**Anecdotal Information**

- **Mom and/or Dad participated in all therapy sessions and learned many ways to practice at home.**

- **Our participant enjoyed listening with headphones and taking turns speaking into the microphone while the clinician listened. When the clinician attempted to elicit correct productions, the participant said, “You not good listener.”**

- **Both the speech sound identification and production tasks were difficult for our participant. As task difficulty increased, inattentive behaviors increased, e.g., falling into the “pond” during a fishing activity.**

- **A follow-up assessment (beginning of the spring 2013 semester) showed increased speech intelligibility because he included more consonants in multisyllabic words.**

- **His increased intelligibility allowed us to identify previously unrecognized verb tense and omission errors.**

**Results & Discussion**

- **During production probes, our participant correctly produced initial /p/ twice and initial /f/ once. In less-structured contexts, he also correctly produced /p/ three times and /f/ twice.**

- **Our participant correctly produced /s/ once and /k/ twice during probes and production practice. He also produced /s/ four times in less-structured contexts.**

- **Our participant showed improvement in speech production using both approaches. Using the phonological awareness approach, however, his phoneme identification skills also improved. He began the treatment period with correct identification of 5 out of 10 /f/ and /p/ words and ended with 9 out 10 correct.**

- **Inter-rater Reliability: An unfamiliar listener independently coded 10% of the data. Point-to-point reliability was 93%.**

**Future Directions:**

- **Test other phonological awareness skills and tasks: Did we select the most appropriate PA skill?**

**Selected References:**


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Bethany Shipman

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**Abstract**

Preschool children who have a speech sound disorder often struggle with literacy development, which may be attributed to their deficits in phonological awareness (Bird, Bishop, & Freeman, 1995; Mann & Boy, 2007; Rivachew & Grawburg, 2006; Schuele & Boudreau, 2008).

A more traditional approach that focuses directly on speech sound production (e.g., the Hodson cycles approach) is typically used with children whose speech is not very intelligible (Hesketh, Adams, Nightingale, & Hall, 2000).

If children learn language by listening (Hodson, 2011), we hypothesize that children with a phonological disorder just need additional intense input to develop the correct speech sound representations (Rivachew & Brosseau-Lapré, 2012).

Previous researchers have investigated listening approaches, usually with older children, with a wide range of findings. (Denne, Langdown, Pring, & Roy, 2005; Gillon, 2000; Hesketh et al., 2000).

There is limited research regarding the effect of phonological awareness (listening) interventions on speech production in preschool children.

**Background**

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- There is limited research regarding the effect of phonological awareness (listening) interventions on speech production in preschool children.

**Phonological Awareness (PA)** is an individual’s level of understanding of sounds in words within spoken language.

- There are five levels of phonological awareness:
  - sentence awareness
  - word awareness (I am hungry- 3 words)
  - rhyme awareness (“cat” and “bat”)
  - syllable awareness (butterfly- 3 syllables)
  - phoneme awareness (“sun” starts with an “s”)

- In this study, we focused on phoneme awareness, specifically speech sound discrimination and identification, i.e., “Do you hear /p/ or /f/?”

**Anecdotal Information**

- **During the second therapy session, our participant started marking /p/ words with an /h/ sound,** indicating he was struggling with identifying phonemes.

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