



Introduction

- Melodic intonation therapy (MIT) is a treatment approach utilizing intonation and rhythm to increase verbal output
 - three levels with 4-5 steps involving intonation
 - ten target phrases used each level
- Candidates for MIT show similar characteristics exhibited in apraxia of speech (Heim-Estabrooks & Albert, 2004):
 - poor articulation
 - nonfluent speech
 - prosodic difficulties
 - intact auditory comprehension

Research Synthesis

- Roper (2007) completed a research synthesis over three studies that looked at the effectiveness of MIT as a treatment option for apraxia of speech for children
 - decrease in articulation errors
 - 20 to 50% increase in overall intelligibility.
 - increase in spontaneous words and MLU
 - increase in sentence length, word and morpheme production, and performance level.

Purpose

Determine efficacy of melodic intonation therapy as a treatment approach for a child with apraxia of speech as measured by the participant's reading fluency shown in words per minute.

Methods

- Participant
 - 13-year-old male previously diagnosed with childhood apraxia of speech and a language impairment.
 - Currently uses four-to-six word utterances, which is below the number expected for a typically developing child of his age
 - Having spontaneous speech and reading fluency
 - Articulation errors and limited prosody.
 - GORT-4: Reading fluency at 2nd grade level
- First Component
 - Pre- and post-treatment probe from *A Boy, a Dog, and a Frog* (Mayer, 1971)
 - words per minute determined
 - number of errors noted

Second Component

- Pre- and post- treatment probe from *One Frog Too Many* (Mayer, 1975)
 - reading level multisyllabic words added to probe

Melodic Intonation Therapy

- Ten target phrases adapted from *Frog Where are You?* (Mayer, 1969) for each component
- Target phrases for second component contained more multisyllabic words
- 90% accuracy across two consecutive sessions was passing criteria to move between levels.

Results

Figure 1. Pre-treatment and post-treatment number of words read per minute.

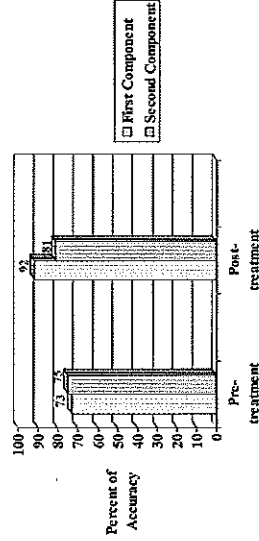
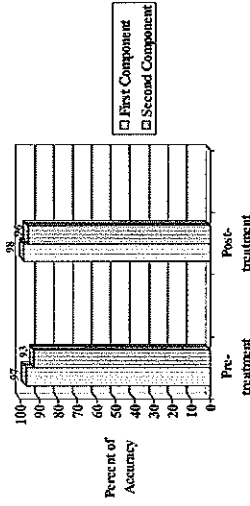


Figure 2. Pre-treatment and post-treatment accuracy scores.



Discussion

First Component

- Criterion met for all levels
- Errors:
 - omission of grammatical morphemes (e.g., -ing, -ed, plural and possessive s)
 - sound substitutions
 - decreased over time but still remained

Second Component

- Criterion not met for level one
- Errors
 - omission of grammatical morphemes
 - omission syllables of multisyllabic words
 - errors on multisyllabic words decreased

Comparison of Results in Both Components

- Amount of increase in words per minute in second component was smaller than first component
- Words read per minute and accuracy was lower in pre- and post-treatment probe in second component.
- Hypothesized that this was due to more multisyllabic words in second component making it more difficult due to sound sequencing requirements

Conclusion

- Increases in words per minute and accuracy of reading after MIT
- Further research is needed using current levels of MIT with focus on conversational versus reading fluency and different levels of complexity

References

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