



Introduction

- For many children with autism, reading accuracy skills are good and they can identify words quickly by decoding or recognizing the words from memory recall (Nation, Clarke, Wright, & Williams, 2006)
- Nation and colleagues (2006) conducted a study which included determining the levels of component reading skills
 - * Of the 41 participants, 9 were unable to read
 - * Of the remaining 32, all had scores within normal limits (WNL) on accuracy of reading nonwords, word recognition, & reading text; however, only 11 had comprehension WNL
 - 10 had comprehension 1 SD below the norm
 - 11 had comprehension 2 SD below the norm
- Nation et al. (2006) found that when viewing those with normal reading comprehension and those with impaired reading comprehension, there was no difference on any measures of reading accuracy

Purpose

To investigate differences in performance on oral reading comprehension in a child diagnosed with autism disorder across three conditions: traditional, computer-based, and computer-based with visual supports

Methodology

Participant:

- 8-year-old male diagnosed with autism disorder
- Core deficits in the areas of social interactions, communication, and repetitive behaviors
- Verbal, but verbal language increased when using visual supports (i.e. orthographic and/or line drawn symbols)

Materials:

- Gray Oral Reading Test, 4th Edition (GORT-4)
 - * Used to assess oral reading fluency and comprehension skills
 - * Fluency determined by rate and accuracy of oral reading
 - * Comprehension determined by responding to questions over passages
 - * Five multiple-choice questions per story
- Each story was presented across three conditions: traditional, computer-based, & computer-based with visual supports
- Each condition and form were randomly assigned for each session
- GORT-4 was administered and scored following the directions in the standardization manual

Results

Figure 1. Fluency vs. Reading Comprehension on the GORT-4, Form A

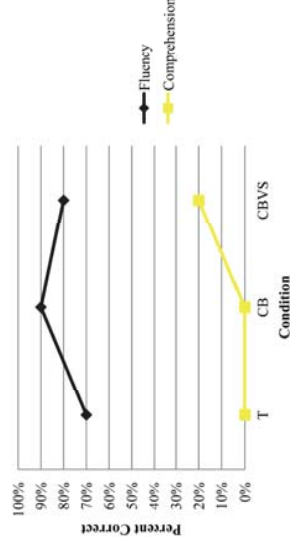
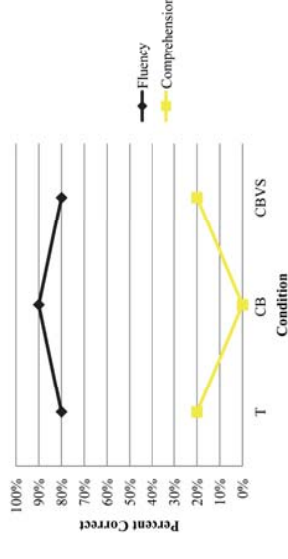


Figure 2. Fluency vs. Reading Comprehension on the GORT-4, Form B



Discussion and Conclusion

Summary of Results

- Fluency scores ranged from 80% to 90% with only one fluency score at 70%
- Reading comprehension scores ranged from 0% to 20% across all conditions
- There were significant deficits in comprehension skills when assessed by asking all five questions following the reading of the full story regardless of the condition

Current Findings in Relation to Previous Research

- Results supported Nation et al. (2006) findings that there are discrepancies between reading accuracy and reading comprehension in children with a diagnosis of autism disorder

Strengths & Limitations

- A ceiling for fluency was not obtained due to the focus on reading comprehension

Clinical Implications

- A reading related modification, using "look-backs" and asking comprehension questions after each page, was used with the computer-based condition with visual supports during one additional session
 - * Participant was successful in responding to 5 out of 5 comprehension questions with modifications

References

- Nation, K., Clarke, P., Wright, B., & Williams, C. (2006). Patterns of reading ability in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 36, 911-919. doi:10.1007/s10803-006-0130-1.
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