

Jackson, I. & Hancock, A. (2008). Write away! Using written supports for children with hyperlexia. ASHA presentation, Chicago, IL.

Hyperlexia is a developmental disorder in which children exhibit a precocious ability in word recognition with deficits in reading comprehension.

- Hyperlexia can co-occur with ASD, PDD, PDD-NOS and other developmental disorders such as SLI, LLD, NVLD
- Frequency of hyperlexia in PDD has been estimated between 5% and 20% (Burd & Kerbeshan, 1985, Grigorenko et al, 2002)

Debated Criteria for Hyperlexia

- Intense fascination with or fixation on letters and numbers
- Co-existing developmental delay
- Reading comprehension level
 - Equal to IQ
 - Equal to auditory comprehension
 - No comprehension

Characteristics of Hyperlexia (AHA, 2006)

- Abnormal social skills
- Difficulty understanding verbal lang.
- Echolalia
- Self-stimulatory behaviors
- Auditory, olfactory, tactile sensitivities
- Normal development until 18-24 months, then regression
- Difficulty with abstract concepts
- Strong auditory and visual memory
- Rarely initiates conversation
- Listens selectively
- Difficulty with transitions; need for routines

Evidence Against

- Written language should not be used as it is a ritualistic behavior and does **not** carry meaning for children with hyperlexia (Aram, 1997)
- Use of the written symbol has **not** been shown to improve comprehension (Aram, 1997)

Evidence For

- Use of written cues to enhance language comprehension and expression in children with hyperlexia is an **effective** intervention technique (Miller, 1993; Craig & Telfer 2005; Aram, 1997; Soenks & Alper, 2006)

Goals targeted in this study

Goal #1: The client will answer **Wh- questions** appropriately and accurately with 80% accuracy over two consecutive sessions. (with and without written cues)

- Treatment: Written cues for each question type including question word and cue word were presented for the *duration of treatment*
Ex: Where? Place
Treatment with written cues occurred for 4 months
- Results: **Performance was maintained** after written cues were removed

Goal #2: The client will phrase desires/suggestions as **declarative sentences instead of questions** (e.g., “Do you want to...?” into “I want to...” or “I want you to...”, or “Should we...” into “we should...”) independently with 80% accuracy in two consecutive sessions.

- Treatment Phase: Written support was provided for *only 2 sessions*
Ex: card with “I want to _____” written on it
- Verbal and nonverbal cues were used when the subject used a question to make a request
Ex: clinician naturally responded (“maybe”) when phrased as a question.

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- Results: **Performance was steadily above baseline** for 5 weeks after treatment with written cues; performance **then became variable**

Goal #3: The client will make appropriate initiations and responses during a **social greeting** exchange in 80% of opportunities for two consecutive sessions.

- Control condition; not directly targeted until Goal 1 was mastered & Goal 2 was stable
- Treatment: A written script to elicit social comments and responses was used for 3 treatment days
- Results: Subject achieved 100% accuracy with script but **returned to baseline level** performance once it was removed

Conclusions

- Findings for comprehension of wh-questions showed maintenance after prompts were faded -consistent with the Kistner, Robbins, and Haskett (1988) study.
- Results from verbal requests showed progress with cues but poor maintenance -differed from Kistner et al. (1998) and Craig & Telfer (2005).
- Results for social skills (greeting script) showed no maintenance once written cues were faded -differed from results in Craig & Telfer (2005).

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