Specific Language Impairment (SLI) has been identified in deaf children who use signed languages, including American Sign Language (ASL) [1,2,3]. SLI in deaf children who use a visual language is separate from the effects of late language exposure as a result of hearing loss. Currently, there is a paucity of evidence in intervention for this unique population. Because ASL is a unique, visuospatial language significantly different than spoken language, it is unknown what treatment strategies would be effective for deaf, signing children with SLI. Of particular interest for this study, is intervention ingrained in principles of statistical learning. Evidence suggests treatments based in statistical learning are effective in improving language outcomes for children with SLI [4,5,6].

**Project Purposes:**
1. To gather information and create a profile of how SLI manifests in signed languages, specifically ASL.
2. To investigate the impact of sign language intervention based in principles of statistical learning for a deaf child with suspected SLI who uses ASL.

**SLI in signed languages:**
A select few studies have begun to create a profile of how SLI manifests in signed languages. Thus far, SLI in children who use signed languages appears to have a similar profile to SLI in children who use spoken languages, including particular challenge with morphology and syntax [7].

- **Key deficit areas identified:**
  - Verb agreement
  - Classifiers
  - Role shift

**Intervention:**
*Statistical Learning:* Defined as a process of implicit pattern recognition that allows learners to extract regularities without conscious intent or knowledge [8].

- **Guiding principles of statistical learning intervention [8]:**
  - *high-density input:* learning targets occur with high frequency
  - *consistency:* treatment target is the most consistent item
  - *variability:* renders the consistent aspect of the target salient

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**Participant “Steven”**

**Evaluation:** Assessment battery revealed expressive language delay in the absence of cognitive, motor, or other medical conditions. Steven’s expressive language consisted primarily of one to three-word sign utterances, with nouns predominating. In longer utterances, Steven had difficulty with intelligibility, largely due to incorrect and significant classifier use, as well as syntax.

**Target Behaviors:** Verbs and Subjective pronouns
**Control behavior:** Descriptors

**Intervention:** Provided through focused stimulation and recasting in a structured play scene. Dosage consists of 24 doses in 30 minutes [4]. Participant is receiving one on one treatment weekly for a minimum of 10 weeks.
References


