Comparison of Language Sample Analysis Procedures

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Why Language Sample Analysis?

- LSA is an effective tool for gaining a comprehensive analysis of an individual's speech and language abilities in a naturalistic environment.
- Avoids the limitations of standardized norm-referenced testing.
- It allows for better control over the examiner's behavior and content, making LSA more uniform and comparable.
- Can be used an unlimited number of times weekly, monthly, or yearly.
- I want to study language sample analysis to determine if there is a more time-efficient method to LSA so that more SLPs can reap its benefits.

According to EBP…

- LSA is the most effective way to identify children with a communication disorder because it engages children in discourse that is difficult enough to encourage the use of high-level language skills and reveal linguistic venerability (Hadley, 2018).
- Natural language samples enable the collection of spontaneous expressive language within various contexts and settings and from different individuals (e.g., parent, SLP) (Barokova & Tager-Flusberg, 2018).
- Written LSA depicts students' ability to use "basic language knowledge at discourse, sentence, and word levels to demonstrate knowledge of spoken-written language relationships with adequate sentence structure and spelling" (Nelson, 2018, p. 43).

SALT

- **Description:** SALT is a LSA software that is used to compare a client's language sample with age and grade-matched peers selected from the norm-referenced database integrated into SALT.
- **Learning to use SALT/methods:** The transcription coding required to use SALT was complex and time-consuming to learn and complete.
- **Time requirements:** 3 hrs.
- **Data Measurements:** intelligibility, syntax/morphology, semantics, and discourse
- **Pros:** software automatically calculates language metrics
- **Cons:** time-consuming; transcription coding can be difficult to learn

SUGAR

Description: SUGAR is a system for LSA that was intended to reduce the amount of time to re
Learning to use SALT/methods: It took me around an hour and a half to learn and understand the transcribing procedures.
Time requirements: 1 hr. 30 mins.
Data Measurements: use of morphemes, sentences, clauses, and word variety (TTR)
Pros: do not have to transcribe the examiner's utterances, which saves time; can take less time than SALT, especially if the person has had practice using the SUGAR procedures
Cons: only evaluates 4 metrics; limited to ages 3;6-7;11 (only provided norms and sub-analysis for this age range

IPSN

Description: IPSN is a LSA procedure intended to measure syntax production in young children.
Learning to use the LSA procedure: It took an extensive amount of time to analyze a language sample because I had to learn what several of the syntactic structures were.
Time requirements: 2 hrs. 15 minutes.
Data Measurements: evaluates 56 listed syntactic structures + four "other" forms within four subscales: noun phrases (NP), verb phrases (BP), questions/negations (Q/N), and sentence structures (SS)
Pros: provides a comprehensive analysis of a child's syntactic skills because it evaluates a wide range of syntactic properties
Cons: requires 100 utterances compared to SALT and SUGAR's 50 utterances; time-consuming; requires extensive knowledge in syntactic/grammatical structure (e.g., clauses, catenatives copulas)

Purpose of Current Study

- To learn about various LSA methods
- To evaluate the effectiveness and efficiency of various LSA methods
- To determine which LSA procedure might be most appropriate for different types of clinical needs

Barriers to Language Sample Analysis

- time-consuming
- complex analysis procedures

Conclusions/Clinical Implications

- Each language sample procedure has its strengths and weaknesses. To determine which procedure is the most beneficial depends on the amount of time one has to spend to collect, transcribe, and analyze, the skill(s) being assessed, and the kind of client being assessed.
- For a comprehensive analysis of an individual's language skills, I would recommend SALT since it analyzes intelligibility, syntax/morphology, semantics, and discourse.
- SUGAR would be beneficial for SLPs who do not have an excessive amount of time to analyze a language sample but hope to get a better picture of a client's morphology, semantics, and syntax skills.
- For clients who display concerns with syntax, I would recommend IPSN because it evaluates over 56 syntactic structures.

Future Research

- Should include a comparison of a broader range of LSA procedures
- Should investigate a way to combine the comprehensive analysis of language provided by a LSA like SALT with the time efficiency of a LSA procedure like SUGAR

References:
Barokova, M. & Tager-Flusberg, H. (2018). Commentary: Measuring language change through natural language samples. *Journal of Autism and Developmental Disorders, 50*, pp. 2287–2306.
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