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Language Sample Techniques

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Session Overview

- Introduction
- Language Sampling techniques
 - Settings
 - Materials
 - Types of interactions
 - Sample size
- Transcription and coding
- Description of Analysis types
- Practice language transcription analysis by hand
- Preview of electronic programs for analysis
- Conclusion

Language Sampling

- Importance
 - Representative of language abilities and needs of the child
 - One assessment tool
 - Used to show growth or change across time
 - Used to document therapy outcomes in natural settings

Language Sampling

- Setting (Miller, 1981; Retherford, 2000)
 - Home
 - School
 - Classroom
 - Cafeteria/Playground
 - Therapy Room
 - Clinic/Hospital (therapeutic setting)
 - Use of more than 1 setting

Language Sampling

- Materials (Retherford, 2000)
 - Single-object pictures
 - Multi-object pictures or scenes
 - Toys or Games
 - Books (stories with words versus wordless picture books)
 - Collect sample for both “structured” and “unstructured” tasks
 - Not using materials

Materials, cont.

- Use of a variety of materials
 - Difference in communication demands
 - Differences in language frequency and complexity
 - Differences not predictable for children (Retherford, 2000)

Language Sampling

- Type & Nature of Interaction (Retherford, 2000)
 - Allow a period of warm-up conversation/play before collecting language sample
 - Client-Clinician, Client-Peer, Client-Sibling, and Client-Caregiver or Client-Teacher interactions may influence language sample
 - Again, consider using multiple types of interaction

Language Sampling

- Sample Size (Miller, 1981; Retherford, 2000)
 - Number of utterances vs. length of time
 - Suggestions range from 15-30 minutes or 50-200 utterances
 - 100 utterances realistic/efficient, especially if a variety of settings, materials and types of interactions are utilized

Additional Tips/Suggestions

- Watch the type and number of questions
 - Consider using 1 question for every 4 terms
 - Limit “Tell me about this” or “Tell me more”
- Repeating some utterances and/or keeping utterances at the same length or slightly longer than client
- Use pauses

Methods of Recording

- On-line (real time)
- Audio
- Video
- Specification of Context
 - Co-participants’ utterances, interactions & situations
- Take brief notes of initial thoughts, context, etc.
- *Note: Use of electronic language analysis programs should aid but not have any impact on language sampling results

Language Sampling Format

Young Child

- Free play
- Play: doll house, kitchen, castle
- Tell story using wordless picture book (e.g., Tuesday by David Wiesner)

Older Child

- "Get to know you" conversation
- Explain favorite game and how to play
- Retell story or event
- Favorite and least favorite subjects in school and why

Additional "structured" activities to assess specific types of communication

General Types of Analysis

- **Descriptive:** total number of utterances, number of responses, repetitions, incomplete, unanalyzed
- **Example Measures of Syntax:** Mean Length Utterance-MLU, Brown's Grammatical Morphemes (Brown, 1973), Developmental Sentence Score-DSS (Lee & Canter, 1971), Assigning Structural Stage (Miller, 1981)
- **Example Measures of Semantics/Vocabulary:** Bloom's One-Word Utterance Types (1973), Nelson's One-Word Utterance Types (1973), Number of Different Words-NDW (Klee, 1992), Total Number of Words-TNW (Klee, 1992), Type-Token Ratio-TTR (Templin, 1957; Klee & Stickler)

Word Segmentation

○ Transcript Conventions Part One: Word Segmentation

1. A 'word' is consistently used by the child, and is consistently interpreted by the listener.
2. If a production is consistently treated as a word by a parent or person familiar with the child, then you should also treat it as a separate word or form; e.g., wawa for water.
3. Babbling is transcribed as a vocalization using the convention for comments; e.g., C {ba ba ba ba}.
4. When names/titles are used, underscore character to link words together; e.g., Winnie_the_Pooh.

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Example

Mom	Context	Toddler
Do you want milk or water?	At dinner	Moo moo.
		Wa wa icky.
Ok I'll put juice in your cup.		Princess Sofia cup.

M Do you want milk or water?

T Moo_Moo.

T Wawa icky.

M Ok I'll put juice in your cup.

T Princess_Sofia cup.

Morphemes

1. Mark the use of plurals, possessives, verb inflections, and contractions with a slash.

2. Types of Plurals and Possessives:

- Regular Plural Inflection: boat/s (Not used on words without singular form; e.g., scissors, pants)
- Possession: bird/z nest (Not used on possessive pronouns; e.g., his, hers, theirs)
- Plural Possessives: the cat/s/z food

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Morphemes

3. Verb Inflections and Contractions

- Regular Past Tense: laugh/ed (Do not change the spelling of the word stem; e.g., use cry/ed not cri/ed)
 - (Not used on irregular past tense verbs; e.g. had or made)
- Progressive Inflection: skip/ing (Not used on participles, e.g., flying bird; gerunds, e.g., I like dancing; concatenatives, e.g., gonna, hafta, wanna)
- Third Person Singular Verb Inflection: jump/3s (Not used on irregular verbs; e.g., does or has)
- Contracted Verbs: he/'ll go, he/'s going
- Contracted Negatives: did/n't, was/n't (Do not use slash for won't, don't, ain't, let's)

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Example

Clinician	Context	Preschooler
Do you have any pets?	Playing with the dollhouse	Yeah two cats.
Tell me about them.		Snowball's white and Simba jumps on everything.
Really?		Them crazy cats jumped on my mom's head.

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- C Do you have any pet/s?
 P Yeah two cat/s.
 C Tell me about them.
 P Snowball/'s white and Simba
 jump/3s on everything.
 C Really?
 P Them crazy cat/s jump/ed on my
 mom/z head.

Additional Tips

- Numbers can be written out or entered as digits; e.g., twentyone OR 21.
- Unusual Spellings:

Atta	Betcha	Gonna	Gotta
Hafta	Hey	Hmm	Huh
Liketa	Lookit	Mhm	Nope
Opps, Oppsy	OK	Oughta	Psst
Sposta	Trynta	Uhhuh	Uhuh
Wanna	Whatcha	Yeah	Yep

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Mazes

- Revisions, repetitions, false starts and pauses
- Use parentheses to mark mazes
- Filler words and vocalizations should be included in the maze
- Fillers include: ah, eh, er, hm, uh, um
- Examples:
 - M And then (he) he went to the game.
 - C He (um) went to school first.

Example

Examiner	Context	Child
Why are you so happy today?	Conversation	Because I um I just got I'm getting a hamster.
When?		Right after after school today.
That will be fun.		Ah yeah it's really um really cool.

-
- E Why are you so happy today?
 C Because (I um I just got) I'm getting a hamster.
 E When?
 C Right (after) after school today.
 E That will be fun.
 C (Ah) yeah it's (really um) really cool.

Omissions

1. Omissions - when a word or bound morpheme that is necessary for grammatical correctness is omitted - may be an indication of utterance formulation problems.
2. Asterisk symbol used to indicate an omitted word.
3. Enter an asterisk and then type the omitted word with no spaces; e.g., She *is my mom.
4. For bound morphemes enter a slash and then the asterisk and omitted word; e.g., The boy walk/*ed home.
5. Omitted contractions can be entered as an omitted word or as an omitted bound morpheme.
6. When unable to determine the specific part of the word/words omitted, the utterance can be flagged with an error code; e.g., E What is Mommy do/ing?
 C She book [EU].

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Example

Examiner	Context	Child
Where's the dog?	Playing with dollhouse	He not here.
I wonder where he's at.		He's play outside.

E Where's the dog?

C He *is not here.

E I wonder where he's at.

C He's play/*ing outside.

Codes

1. Codes can be created to mark anything of interest in which there is no transcription convention.
2. Code consists of characters enclosed within square brackets [].
3. Avoid the usage of symbols such as @ or = .
4. Two types of codes in SALT: word-level errors [EW] and utterance-level errors [EU].
5. Word code: code attached to the end of the word with no spaces. [EW] used when words are used incorrectly. Correct word placed in the brackets if known; e.g., The boy falled[EW:fell].
6. Utterance code: not attached to a word. Can occur anywhere within the utterance before the end-of-utterance punctuation mark; e.g., E What is Mommy do/ing? C She book [EU].
7. Can make your own codes. Be sure to begin error codes with the letter "E"; e.g., Verb errors [EV]. You can also create other types of codes. For example, you could code story grammar for a narrative or semantic roles in a child using 1 and 2 word utterances.
 - C Kitty jump [AA]. AA=Action-Agent
 - C Where's kitty [LSE]. LSE=Locative-state-experiencer
8. Good idea to define any codes used at the beginning of the transcript, after the identification information.

Information modified from SALT website; Cochran & Pahl, 1996; Kent 1994; Retherford 2000

Example

Examiner	Context	Child
Look at that.	Looking at wordless picture book	He falled down.
I bet that hurt.		She help.

E Look at that.
C He falled[EW:fell] down.
E I bet that hurt.
C She help [EU].

Types of Analysis

- Should vary based on several factors
 - Age of the child
 - “The usefulness of MLU-m for distinguishing syntactic development diminishes past Brown’s Stage V, because sentences that contain syntactic elaborations may be the same length as those that do not (Crain & Lillo-Martin, 1999; Leonard, 1998). Thus interest in applying MLU-m to older populations has been lacking. Klee (1992b) and Rollins, Snow, and Willet (1996) have challenged the validity of MLU-m for later- developing language.” (Hewitt et al., 2005, pg. 199)
 - Provide results in all areas of language
 - Demonstrate strengths and weaknesses of the child
 - Supplement results from other areas of assessment

Analysis Calculations

- MLU (or MLU-m)
 - Number of morphemes
 - Number of utterances
- Type-Token Ratio (TTR)
 - Total number of different words (NDW)
 - Total Number of Words (TNW)

Try a sample on your own

- In the handout is a language sample. Mark and count morphemes for child.
- Calculate total number of utterances for the clinician & child.
- Calculate Mean Length Utterance (total morphemes/total utterances) for child.
- Calculate number of different words (NDW) for child.
- Calculate total number of words (TNW)
- Calculate type-token ratio (TTR)
- You have a handout with the answers but don't check until you've done it by hand.

Additional Considerations

- Did sample represent the speaker's language abilities?
- Were the results influenced by the partner?
 - Example: Did the other speaker ask too many yes/no questions?
 - Consider analyzing the other speaker's language sample too
- Context and additional notes can provide valuable information
- Correct or incorrect language examples compared to other assessment results
- Complexity of language compared to peers
- Language needed in natural environments (ex. Academic requirements)

Electronic Analysis

- Child Language Analysis (CLAN)/CHILDES System
 - <http://childes.psy.cmu.edu/>
- Computerized Profiling (CP)
 - <http://www.computerizedprofiling.org/>
- LENA language assessment
 - <http://www.lenafoundation.org/DataServices/LenaLanguageAssessment.aspx>
- Systematic Analysis of Language Transcripts (SALT)
 - <http://www.saltsoftware.com/>

Electronic Analysis

- Each website has sample transcripts or details about how their program works.
- Look at the similarities and differences between features
- Consider your needs and the costs associated with using an electronic transcription program

Conclusion/Questions

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