Using Language Samples to Develop Grammatical Intervention Goals



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Introduction

- One area of language that is particularly difficult for many children to master is grammatical language.
 - Specific or primary language impairment
 - Fragile X syndrome
 - Autism spectrum disorder
- Clinicians must identify, develop, and monitor progress of grammatical goals.



Current Practice

- Treatment time spent targeting grammatical forms:
 - Preschool: 57%
 - Early Elementary: 48%



Current Practice

- More than 80% of clinicians use standardized tests at least some of the time to monitor treatment progress.
 - Preschool Language Scales (PLS; Zimmerman, Steiner, & Pond, 2002)
 - Comprehensive Evaluation of Language Fundamentals (CELF; Semel, Wiig, & Secord, 2003),
 - Structured Photographic Expressive Language Test (SPELT; <u>Dawson</u>, <u>Stout</u>, <u>& Eyer</u>, 2003)
 - Comprehensive Assessment of Spoken Language (CASL; Carrow-Woolfolk, 1999).



Current Practice

- Clinicians indicated that they use language sampling to monitor progress approximately 75% of the time.
 - MLU
 - TTR
- Systematic Analysis of Language Transcripts (SALT; Miller & Chapman, 2012)
 - Bound Morpheme Table
 - Developmental Sentence Scoring (DSS; Lee, 1971)





Timothy Huang

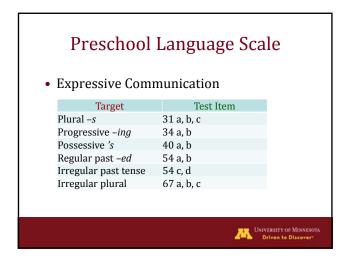
USING STANDARDIZED ASSESSMENTS TO DEVELOP AND MONITOR GRAMMATICAL GOALS

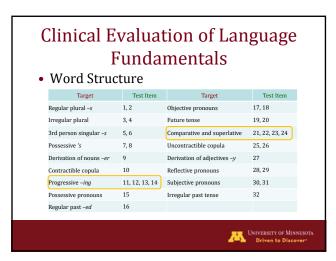


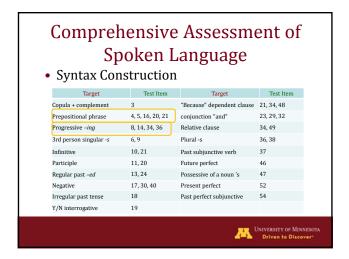
Standardized Assessments

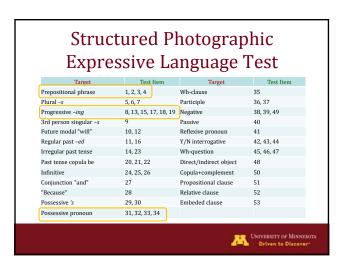
- Advantage: Efficiently identify grammatical weaknesses that may not occur in language samples
- Disadvantage: Each grammatical form is only assessed with a limited number of opportunities

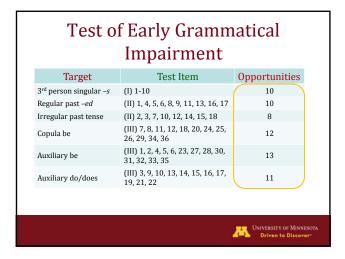


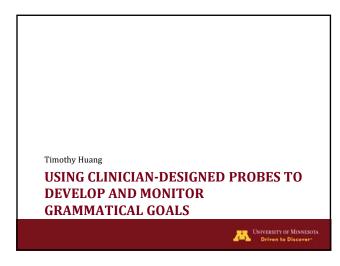




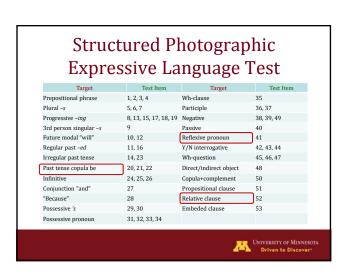








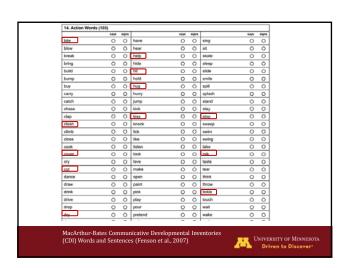




Reflexive Pronoun Probes

- Potential targets: himself, herself, <a href="https:/
- Standard and additional prompts
 - "The boy looks in the mirror. Who does he see?"
 - "Start with He..."
- Structure analysis: Subject + Verb + target
- Think of 10-12 verbs/actions that are appropriate in this context!





Reflexive Pronoun Probes

- Demonstration
 - "Look at the picture. Who does the boy see?"
 - "He sees himself."





Reflexive Pronoun Probes

- Practice 1
 - "Look at the picture. Who does the girl hug?"
 - "Start with She..."





Reflexive Pronoun Probes

- Practice 2
 - "Look at the picture. Who do the children cover?"
 - "Start with They..."





Reflexive Pronoun Probes

- Question 1
 - "Look at the picture. Who does the boy hurt?"
 - "Start with He..."





Past Tense Copula Be Probes

- Potential targets: was and were
- Standard and additional prompts
 - "Why did the girl go to bed?"
 - "She was tired."
- Structure Analysis
 - Subject + <u>target</u> + <u>complement</u>
- Think of 10-12 adjectives!



Past Tense Copula Be Probes

- Example 1
 - "Why did the girl wear a sweater and a scarf?"
 - "She was cold."





Past Tense Copula Be Probes

- Example 2
 - "Why did the children cry?"
 - "They were sad."





Relative Clause Probes

- Example 1
 - "Look at the pictures. One boy reads a book, and the other plays video games. Who wears glasses?"
 - "The boy who plays video games."







Relative Clause Probes

- Example 2
 - "Look at the pictures. One girl rides a bike, and the other rides a horse. Who wears a helmet?"
 - "The girl who rides a bike."







More Probes

- Reflexive pronoun
- · Past tense copula
- · Relative clause
- Passive
- Wh-question
- Negative wh-question
- Propositional clause
- 3s+infinitive
- Auxiliary+verb+infinitive
- And more...





Katie Bangert

STRATEGIES FOR ELICITING LANGUAGE SAMPLES

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Language Sampling Benefits

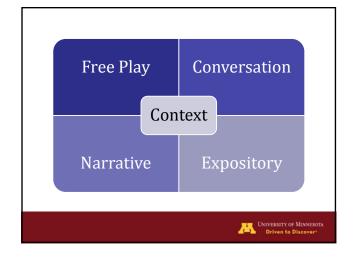
- Can assess how close to mastery, or if grammatical structures are emerging vs. absent.
- Can select contexts/settings in which child is more successful with language.
- Can be used to assess language outcomes.
 - Standardized tests are not designed for repeated testing intervals.
 - Language sample features can be administered repeatedly and normative comparisons can be made.



Sample Length

- Samples should range from 50-100 utterances.
 - Eisenberg, S. L, Fersko, T. M., & Lundgren, C. (2001). The use of MLU for identifying language impairment in preschool children: A review. American Journal of Speech-Language Pathology, 10(4), 323-342.





Expressive Language Sampling in Children with ASD

- Currently conducting a longitudinal study with children with ASD.
- Research Aim: Can we use language samples as an outcome measure in clinical trials for children with ASD?



ASD Study: Context

- Narrative
- Conversation
- Autism Diagnostic Observation Schedule-2 (ADOS)

Lord, C., Rutter, M., DiLavore, P. C., Risi, S., Gotham, K., Bishop, S. L., ... & Gutrie, W. (2015). ADOS-2. *Autism Diagnostic Observation Schedule-2. Manual (Part 1). Modules*, 1(4).



Conversational Language Sample

Idiosyncratic topic	After school	Teacher
School day	Playing games	TV show
Pets	Vacation	Hobbies/interests



Conversational Language Sample

- Idiosyncratic topic
 - ❖ I was talking to your Mom/Dad/Teacher and they told me that you... [TOPIC]
 - ❖ That sounds so interesting/like so much fun. Tell me about that.



Conversational Language Sample

• Idiosyncratic topic: follow-up

I'd like to hear more about...

- ☐ [TOPIC]
- ☐ what you like about [TOPIC]
- ☐ why you like [TOPIC]
- ☐ how you [TOPIC]
- lue what happens when you [TOPIC]



Conversational Language Sample

- · School Day
- So, what grade are you in?
 - It's been a long time since I was in school so I really don't remember very much about the [participant's grade
- Tell me what you did in school yesterday [or the last day the participant was in school].
 - Tell me everything you can remember.



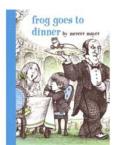
Conversational Language Sample

- School Day: follow-up
 - ☐ What's your favorite part of school?

 - Tell me all about that.Tell me why you like doing that.
 - ☐ What's the first thing you do when you get to school?
 - o Tell me about what you do first
 - $\hfill \square$ What's the last thing you do at school before you go
 - lacksquare Is there anything you don't like about school?
 - o Tell me why you don't like that.



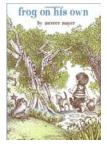
Narrative Language Sample







Narrative Language Sample







Narrative Language Sample

- The goal of the clinician is to give as little input as possible
- 2 passes through the book
 - First pass: no talking just, look at pictures
 - Clinician always turns the pages





Narrative Language Sample

- 2nd pass: Child tells the story
 - 5-7 seconds per page (no matter what!)
- 1st page
 - How does the story start?
 - Hierarchy of prompts





Narrative Language Sample

- PROMPT A [If no response or IDK]
 - What's happening in this part of the story?
- PROMPT B [minimal response]
 - That's a good start. Tell me a little more about what's happening in this part of the story.

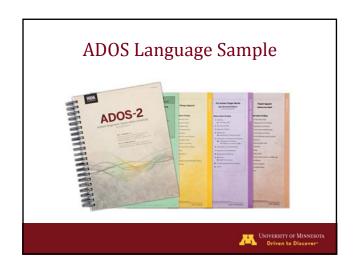




Narrative Language Sample

- PROMPT C [if no or minimal response to prompt A or B]
 - What about the boy? What's he doing?
 - What about the frog? What's he doing?
 - What about the turtle? What's he doing?
- Anything else? (use sparingly)
 - Okay, here's the next page.





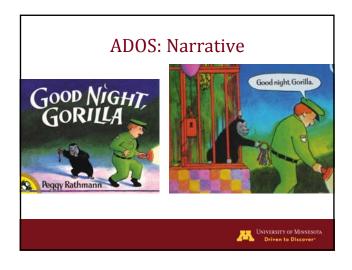
ADOS Language Sample

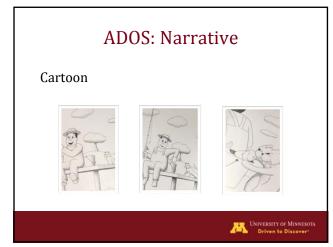
- Narrative
- Conversation
- Expository Discourse
- Free Play





ADOS: Narrative WINDERSTON MINRESOTA Driven to Discover





ADOS: Conversation

- Throughout the ADOS session, examiner is looking for opportunities for conversion.
- Jump into topics as they come up by the child.
- Also provide opportunities with general questioning.
- Examiner "leads"
 - "I did something really cool yesterday..."
 - "Oh that reminds me of something funny..."



ADOS: Structured Conversation

• Description of a Picture:







• Interview: Relationships, school, emotions





ADOS: Play

 Free Play: younger children (does not yet use complex grammar, 5 years or younger)



ADOS: Expository

- Demonstration Task
 - "Pretend like I don't know how to brush my teeth, you are going to show and tell me how to do it."

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USING SALT TO DEVELOP AND MONITOR
GRAMMATICAL GOALS

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SALT

- Software designed to improve the efficacy and accuracy of language sampling analysis.
- Once a language sample is transcribed, run it through SALT software to get a variety of language measures
 - MLU, TTR, NDW, mazes, bound morphemes table





SALT

- Also, will compare your student's performance to normative data.
- Database of over 2,000 children's narrative and conversational language samples.

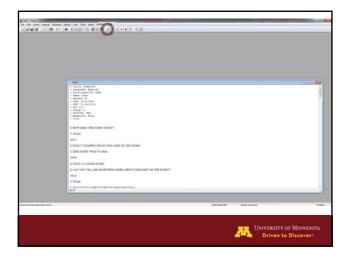




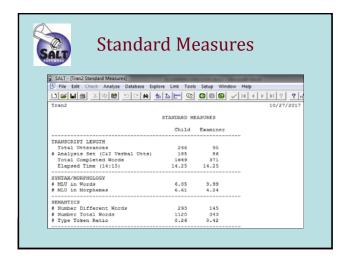
Transcription Conventions

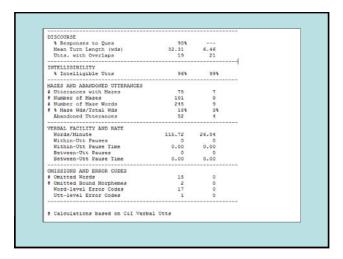
- Utterance Segmentation
 - C-units: Independent clause and its modifiers
- C The frog was sit/ing on a lily pad.
- C And then it jump/ed in.
- C Now we can/'t find my cat who always run/3s away.
- E That/'s too bad!

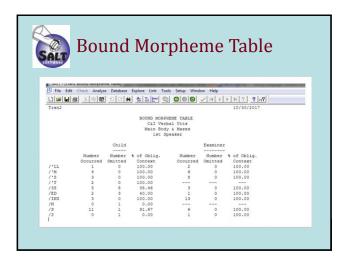


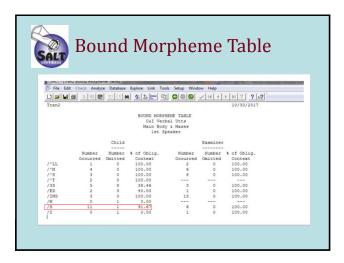


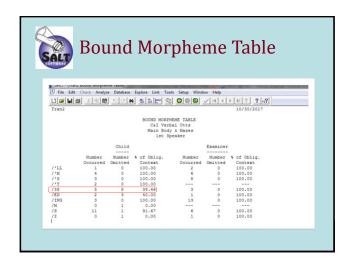


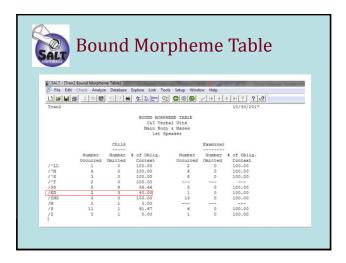








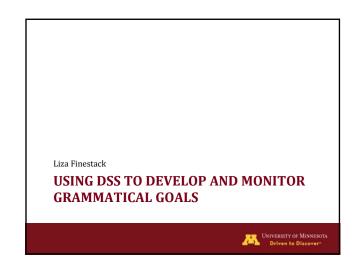




Possible Grammatical Goal

• Child will produce the 3rd person singular verb with 90% accuracy in obligatory contexts in a 100-utterance narrative language sample (moving from present level 38% accuracy).





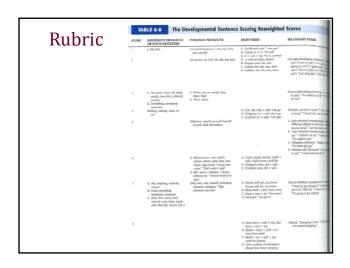


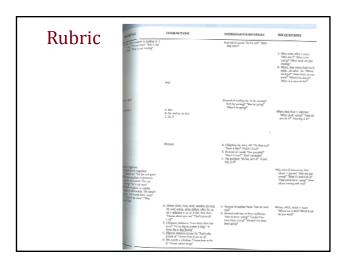


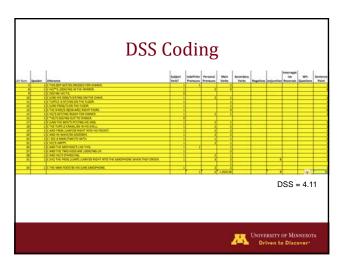
DSS

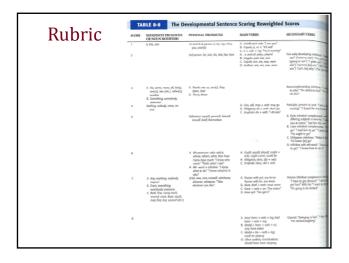
- Each category has scores ranging from 1-8
- Each utterance with subject + verb scored
- Need at least 50 utterances; ideally, 100











Possible Grammatical Goal

• Child will produce auxiliary modals (can, will) + verb with 80% accuracy in a 100-utterance narrative sample.



Questions?

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