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Analysis Assistance

SLPs turn to language sample analysis software to document progress on the Common Core State Standards.

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The Common Core State Standards (CCSS) are with us, and there is increasing necessity to integrate them into speech-language pathology practice. While some versions of these standards have been part of individual state standards for decades, the Common Core, approved by 46 states, has integrated them into a single set of expectations for students' readiness for advanced education or employment.

As SLPs, our focus is on those standards concerned with oral communication skills, which underpin much of the rest of the curriculum. Assessing student progress toward meeting these standards is a major concern given the interrelatedness of the standards. And as SLPs, we are specifically concerned with how speech, language, communication, and literacy fundamentals are linked to curriculum content, e.g., social studies, math, science, and history.

We propose an approach to evaluate two standards for kindergarten students as an example of how to measure language performance in the context of the CCSS.

Milestones for Kindergarteners

In the broad category of Comprehension and Collaboration, students are expected to "Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups." Additional specifications include ensuring students take turns appropriately and stay on topic, as well as ask and answer questions in order to seek help, get information, or request clarification.

In the category of Presentation of Knowledge and Ideas, kindergarten students should be able to "Describe familiar people, places, things, and events and, with prompting and support, provide additional detail." Additionally, they must be able to "Speak audibly and express thoughts, feelings, and ideas clearly."

Each of these standards continues through the elementary grades, incorporating elaborated grade-level content and advancing literacy skills. Our approach to measurement is appropriate for students in kindergarten through 12th grade for these and many related standards.

Analyzing Language

To assess the conversational skills specified in these standards, it is best to use the language sample analysis (LSA).

Standardized tests are developed to identify language disorders using measures at the word and utterance level that predict disordered performance. A language sample, on the other hand, assesses functional language use in context and provides access to all levels of oral language specified in the standards.

SLPs have long used LSA as an outgrowth of research on typical language use.1 The process involves recording, transcribing, analyzing, and interpreting the results. These steps can be completed by hand or with the assistance of one of several time-saving computer programs, e.g., Systematic Analysis of Language Transcripts (SALT), which offers SLPs fast and accurate analyses of the skills specified in the CCSS for conversation, narration and expository oral and written language.

Recording a sample that reflects students' typical language use in school is vital. A valid sample will yield accurate analyses across language levels.

For example, "Julia," a kindergartner, is described as "struggling with oral language." Her sentences are "short with little elaboration." Her teacher reports she does not always stay on topic and often does not appear to listen to or understand what is said to her in conversation. Her teacher feels Julia's grammar is "not as mature as the other students'.

The school SLP recorded a language sample following the SALT protocol for eliciting a conversation. The sample was transcribed using SALT transcription conventions (**Figure 1**).

Julia's language sample was compared to a group of age-matched typical peers from the SALT conversation database to produce norm-referenced reports of her language use. To obtain a global picture of strengths and weaknesses, a Standard Measures Report was run. This report summarizes 26 language measures across syntax, semantics, discourse, rate, fluency, and errors from the language sample.

Julia's performance revealed a number of areas where her language skills were not keeping pace with her peers. Her language skills, when viewed through the CCSS lens, were not meeting the expectations for several specific standards for conversational skills.

FIGURE 1

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$ Child, Examiner
+ Name: Julia
+ Gender: F
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Software Analysis

Julia's discourse measures revealed she responded to only 67% of questions posed by the examiner. She asked no questions of the examiner, even when content appeared unclear. A closer look at questions and responses revealed

+ CA: 5;7

+ Context: Con

....

C Michelle got[EW:has] two cat/s.

C One cat is afraid.

C So him[EP:he] (bite) <> bite/*3s the nother[EW:other] cat [EU].

E .

E Oh, he bite/3s the other cat [NR]?

; :02

E When he/'s afraid he does?

C (Some) Him[EP:he] *is shy, I mean [IR].

E Oh, he/'s shy.

E So does he run away when you come out?

C The nother[EW:other] cat is lovely [IR].

E Is lovely [NR]?

E Is that the cat/z name?

C [AR].

E are you just say/ing (he/'s lo*) she/'s lovely?

....

Julia did not respond to 21 questions posed. Five of her responses were deemed "inappropriate." Three responses were described as "limited." And one response was delayed (or occurred one or more turns after the question was asked).

In the Common Core category of Comprehension and Collaboration, Julia has not achieved proficiency in the areas of asking and answering questions or requesting clarification. These results support her teacher's description that Julia "does not appear to listen to or understand what is said to her in conversation."

The discourse measures from the sample also revealed Julia's mean turn length was below her age-matched peers by more than 1 standard deviation. She was not contributing as much per speaking turn as her peers, and often failed to maintain the conversational topic. Adding and enhancing information in conversational exchanges and staying on topic are required to meet the Comprehension and Collaboration anchor standard.

Proficiency in the anchor standard of Presentation of Knowledge and Ideas, specifically, expressing thoughts, feelings, and ideas clearly, is hampered by Julia's frequent repetition and revision of words. This, along with her low mean length of utterance (MLU), supports the teacher's description of short sentences with little elaboration and her struggle with vocabulary selection.

At this point in the school year, Julia is not meeting the oral language standards revealed by this analysis of her conversational skills.

Strength of LSA

The strength of LSA is providing the opportunity to address the oral language standards from kindergarten through 12th grade. Different language sample contexts reflecting advancing conversational, narrative and expository skills will allow us to meet this objective. Language samples can be recorded throughout the year to document progress on the CCSS. Progress toward meeting the CCSS standards can be charted along with changes in vocabulary, syntax and verbal fluency.

Reviewing individual student performance in the CCSS context provides SLPs a powerful tool to document progress as it relates to grade-level curriculum.

References

1. Miller, J. (1981) Assessing Language Production in Children: Experimental Procedures, Second Edition New York: Allyn and Bacon.

2. Miller, J. & Iglesias, A. (2012) SALT: Systematic Analysis of Language Transcripts. Software for the analysis of oral language. Middleton, WI: SALT Software, LLC

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