



Current Research Review:
**Factors Influencing the Selection of Standardized
Tests for the Diagnosis of Specific Language Impairment**

(Betz, Eickhoff, & Sullivan, 2013)

Background: Previous research demonstrates that standardized assessments are frequently used by SLPs to diagnose children with language impairment (LI). With many assessments commercially available, it's unclear as to why clinicians choose one test over another. According to evidence-based practice, clinicians are encouraged to use empirical data to make clinical decisions, such as selecting standardized assessments by evaluating the test's psychometric properties, such as reliability, validity, and accuracy.

Hypothesis: The authors investigated which standardized tests are used most frequently by SLPs and whether the quality of these assessments, as measured by their psychometric properties, correlates with how frequently SLPs use them when diagnosing children with suspected specific language impairment (SLI). The authors hypothesized that the most frequently used diagnostic measures would be vocabulary or omnibus language measures, which provide a comprehensive overview of language skills. They also predicted that SLPs would choose assessments based on reliability and validity, but not accuracy because this psychometric property is not as frequently discussed in the field. Finally, the authors predicted that SLPs would select assessments that require shorter administration time and were published more recently.

Methodology and Participants: 364 SLPs currently practicing in the United States completed an online survey sent via email. Participants were asked to rate how frequently they used a range of 55 standardized tests when evaluating children ages 5-9 with suspected SLI. Standardized assessments analyzed for each test's purpose, publication year, administration time, and psychometric properties (reliability, validity, and diagnostic accuracy).

Conclusion: The results demonstrate that SLPs tend to use only a few tests when evaluating a child with suspected SLI, with the top 3 being: CELF-4, PLS-4, and PPVT-4. The 10 most commonly used tests were newer versions of omnibus language or vocabulary measures, regardless of reliability, validity or accuracy. Further analysis of diagnostic accuracy showed that only 22 of the 55 tests reported sensitivity and specificity, and only 13 of those tests had values in the acceptable range. Only two of the tests in the top 10 (CELF-4 and CELF-P2) had acceptable accuracy values. Despite the fact that vocabulary tests have been shown to have low diagnostic accuracy, several vocabulary tests were among the top ten (PPVT-4, EOWPVT-3, ROWPVT-2, EVT-2). Whereas morphosyntactic features have shown more promise in diagnostic accuracy, these tests were rarely used.

Relevance to the field: The information collected through the survey indicates a pattern in the field of speech language pathology in choosing standardized assessments without consideration of psychometric measures. This has serious long-term consequences in combating both under and overdiagnosis due to reliance on tests that lack appropriate validity, reliability and accuracy. As the majority of commercially available tests did not report crucial

psychometric information, SLPs should advocate for better and more accurate standardized tests as part of a holistic diagnostic process. In addition, they should carefully consider the psychometric information provided, especially the reference standard used by test developers, when choosing to use standardized assessments in diagnosing SLI.

Betz, S., Eickhoff, J., & Sullivan, S. (2013). Factors Influencing the Selection of Standardized Tests for the Diagnosis of Specific Language Impairment. *Language, Speech, and Hearing Services in Schools, 44*, 133-146.