

Title: Comparing spoken versus iPad-administered versions of a narrative retell progress monitoring tool

Research Questions:

Speech-language pathologists at the Upper Grand District School Board (UGDSB) have developed a program called Language Intervention Through Engaging Stories (LITES). Recently, the program shifted to using an app version of the LITES narrative assessment tool. In this case, the story is presented with a voice recording rather than spoken, and the pictures are shown on screen rather than in a picture book. One aim of the current study was to compare scores across various versions of the LITES assessment tool in order to examine the impact on performance of different features, such as audio recording vs. spoken presentation and slow vs. fast speaking rate. A second goal was to assess the validity of the assessment tool. A practice-based research partnership was formed to address the following questions:

1. Do children perform similarly on the LITES assessment tool when the story is presented with a voice recording on an iPad rather than being read aloud from a book?
2. Does the rate of speech of the voice recording affect how children perform on the LITES assessment tool?
3. How does performance on the different LITES assessment tool versions compare to performance on a gold standard language measure?

Methods

Fifty-nine children in kindergarten to grade 2 completed three versions of the narrative assessment tool, administered one week apart and counterbalanced so that no child completed a version with the same story, speaking rate, or mode of presentation consecutively. Analyses compared measures such as accuracy in story retell, number of words spoken and sentence complexity. Participants also completed six subtests of the Test of Integrated Language and Literacy Skills (TILLS).

Analysis and Results

No significant differences were observed in accuracy of story retell for main or supporting events across the different assessment tool versions. Additional language sample analyses also highlighted similarities in the morphosyntactic characteristics of responses elicited across assessment tool versions. Furthermore, the assessment tools were highly correlated with standardized measures of oral language, expressive vocabulary, and receptive vocabulary regardless of the version used.

Implications

It is critical to the success of intervention programs that progress can be monitored effectively using a valid, reliable, and easily administered tool. The current study used a practice-based research approach to demonstrate validity and equivalence of assessment tools currently used in practice.