

Review of three tests of children's narrative ability

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In recent years, there has been increasing interest in the use of narratives for assessment and intervention of language problems. Several test instruments have been developed to tap these abilities in children and to provide a way to compare narrative skill to normative data. The proposed poster will review three narrative tests: The Renfrew Bus Story (Cowley & Glasgow, 1994), The Test of Narrative Language (Gillam & Pearson, 2004) and the Edmonton Narrative Norms Instrument (Schneider, Dubé, & Hayward, 2004). The tests differ in how they measure "narrative quality", as well as in their psychometric properties. Below, we compare the characteristics of the tests. We also present data from a small sample of typically developing 5 year old children who were given the three tests; correlations between scores obtained on the tests are presented, as well as correlations for language measures for the stories told from the tests (mean length of utterance, number of words, etc.).

	Renfrew Bus Story (RBS)	Test of Narrative Language (TNL)	Edmonton Narrative Norms Instrument (ENNI)
Age range	3;0 – 6;11	5;0-11;11	4;0 – 9;11
Normative sample size	228 children, 23-77 per age group	1,059 children, 83-192 per age group	377 children, 60-67 per age group
Sample representativeness	limited (mid-Atlantic states, Florida, and Illinois) excludes children with diagnosed or suspected language or other learning problems	20 US states represented Sample corresponds to US demographics Children with speech/language impairment and learning disabilities included	Local norms from Edmonton, Alberta Sample corresponds to Edmonton and Canadian demographics Children with language impairment included
Type of task	Retell from picture book (context shared by examiner and child)	3 "formats": oral, 5-picture sequence, single picture – each has comprehension and production tasks (context shared in picture tasks)	Generation from pictures – 2 story sets of 3 stories each, increasing in length and complexity within the set (context not shared)
Scores available	Information score (amount of information included from original story) MLU (mean of 5 longest utterances) Complexity score (number of sentences containing relative or subordinate clauses)	Narrative Comprehension Oral Narration (production) Composite score: Narrative Language Ability Index No standard scores for individual formats	Story Grammar First Mentions Language sample measures: MLCU, Syntactic Complexity Index, No. of Words, No. Different Words
Nature of scores for information	Scoring includes story information (some verbatim), proper sequencing, appropriate semantics, correct pronoun referents	Scoring includes story elements, grammar, temporal/causal relationships, vocabulary, creativity	Separate scoring for story elements (Story Grammar); other aspects evaluated in separate measures
Scoring reliability	Marginally adequate for Information, Sentence length; inadequate for sentence complexity	Test-retest with language disordered sample good; interrater reliability excellent	Story Grammar reliability with untrained S-LP scorers: excellent; other reliability for other measures also excellent
Reported validity	High concurrent validity with British version Progression in scores across age groups	Correlated with TOLD-P3; age progression demonstrated	All scores correlated with CELF-P or CELF-3
Discrimination	No information in test, but several research studies have found that British BS Information Score predicts later language status, reading	Using the Composite score: sensitivity .92, specificity .87	All ENNI measures together: sensitivity .80-.94; specificity .94-1.0
Comments	Limited psychometric properties Predicted quite well in British studies Oral task may reflect auditory memory more than story knowledge	Great tool for assessment; less useful for planning intervention 1 st author has published other analyses using the normative data	Because component narrative aspects are scored separately, useful information is available for planning intervention

Comparisons of Content Scores

The three tests each provide a measure of information recalled, but each includes different information in its scoring. Since the stated goal of each test is to provide information about children's story knowledge, we wanted to investigate whether the tests yielded similar results for individual children. We administered the tests to a group of 36 children, aged 57-73 months (M 62.7, SD 3.89), 22 girls and 15 boys. Maternal education ranged from 12-22 years (M 15.9, SD 2.71). Each test was administered according to its test manual. Order of tests was counterbalanced. Stories were transcribed and scored according to standard procedures for each test. A second scorer scored 20% of the data and obtained reliabilities of .94 (RBS), .84 (TNL), and .90 (ENNI). We then examined correlations between pairs of tests for their information score, as well as mean length of communication unit (MLCU) and Sentence Complexity Index (SCI), which is the number of dependent and independent clauses divided by the number of independent clauses. Reliability for clause identification ranged from .92-.98 for the three tests.

Comparison	Story information score	MLCU	Sentence Complexity
RBS – ENNI	.08	.18	.07
RBS – TNL	.34*	.03	.19
TNL – ENNI	.37*	.39*	.51**

*p < .05
**p < .01

The TNL and ENNI scores were correlated on all 3 measures. The RBS correlated only on story information and only with the TNS. Thus it appears that the Renfrew Bus Story provides a different picture of narrative performance than the other two tests, particularly in terms of syntax. The pattern of results may be related to the task requirements of the tests; the RBS is an oral retell task, while the ENNI and TNL require generation from pictures. The TNL also contains an oral retell with no picture support; MLCU and SCI for this task also does not correlate with RBS scores (MLCU: $r = .10$; SCI: $r = .22$). These results indicate that "narrative ability" is not a unitary factor but is made up of many component skills, both cognitive and linguistic. Task requirements and scoring focus of different tests can result in very different assessments of a child's narrative ability. To obtain a complete picture of a child's ability, it is necessary to elicit stories in a variety of ways.

References

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