

Outcome Measure	Verbal Fluency Task
Sensitivity to Change	Yes
Population	Pediatrics
Domain	Neuropsychological Impairment
Type of Measure	Objective test
ICF-Code/s	B1
Description	<p>Verbal fluency is a cognitive function that facilitates information retrieval from memory. Successful retrieval requires executive control over cognitive processes such as selective attention, selective inhibition, mental set shifting, internal response generation, and self-monitoring. Tests of verbal fluency evaluate an individual's ability to retrieve specific information within restricted search parameters (Lezak, Howieson, Loring, Hannay, & Fischer, 2004). The two most common parameters are (1) semantic fluency, tested by asking the examinee to generate semantic category exemplars (most commonly names of animals); and (2) phonemic fluency, assessed by asking the examinee to generate words beginning with a single letter, most commonly F, A, and S.</p> <p>F-A-S Test: A subtest of the Neurosensory Center Comprehensive Examination for Aphasia (NCCEA; Spreen & Benton, 1977), developed by Borkowski, Benton, and Spreen (1967), who sought to determine proponents of systematically examining word fluency in persons with brain damage. These authors identified a series of "easy" versus "moderately difficult" letters based on word frequency in English, including the "easy" letters F, A, and S, that became a subtest of the Neurosensory Center Comprehensive Examination for Aphasia (Spreen & Benton, 1969) and continue to be used today (e.g., Heaton, Miller, Taylor, & Grant, 2004).</p> <p>How it is administered: The F-A-S Test assesses phonemic verbal fluency by requesting an individual to orally produce words that begin with the letters F, A and S. Individuals are typically given 1 min to name as many words as possible beginning with one of the letters. The procedure is then repeated for the remaining two letters. Scoring for the F-A-S Test is straightforward. The examiner writes each word as it is produced by the individual. The transcript is reviewed and inadmissible words (e.g., repetitions, proper names, or slang) are eliminated. The test score is the total number of different words produced for all three letters.</p>
Properties	<p>In general, verbal fluency measures have demonstrated strong inter-rater reliability, with more modest test-retest reliability. The F-A-S test is also shown to have good internal consistency (Tombaugh, Kozak, & Rees, 1999). Norms have been published for children and adults of varying ages, levels of education, ethnic diversity, and geographical diversity (Loonstra, Tarlow, & Sellers, 2001; Strauss et al., 2006; Tombaugh et al., 1999).</p> <p>Some differences have been noted between the different three letter test forms, most notably, between the F-A-S Test and the CFL three letter set test of the COWAT (Barry, Bates, & Labouvie, 2008); the F-A-S Test form appeared to elicit more variable performance than the CFL, while the CFL form appeared</p>

	more difficult.
Advantages	<ul style="list-style-type: none"> • Users may design their own materials • Good normative data available for children • Quick to administer. • Appears sensitive to TBI and predicts severity. • Strong psychometric properties. • Can be performed independently
Disadvantages	<ul style="list-style-type: none"> • Low specificity. • Limited diagnostic utility without consideration of characteristics such as error types and patterns of recall over time. • The abilities underlying performance on the test are varied (attention, working memory, processing speed, episodic memory), thus it is difficult to attribute impairment to a particular cognitive function. • Highly influenced by premorbid verbal IQ and neurological deficits.
Reviewers	Vicki Anderson Cathy Catroppa

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