

Outcome Measure	Functional Assessment of Verbal Reasoning & Executive Strategies (FAVRES)
Sensitivity to Change	Unknown
Population	Adult
Domain	Language and Communication Neuropsychological Impairment (Others considered)
Type of Measure	Objective test
ICF-Code/s	b1
Description	<p>The FAVRES (MacDonald & Johnson, 2005) was specifically developed for an acquired brain injury population. It assesses verbal reasoning, complex comprehension, discourse, and executive functioning during performance on a set of challenging functional tasks. Requires processing of 'real life' amounts of information, analysis of several factors, integration of a variety of types of stimuli, and formulation of written and oral responses.</p> <p>Designed with ecological validity in mind FAVRES tasks simulate real world communications and incorporate context using natural settings, roles, and conversation. Qualitative and Quantitative aspects of performance are incorporated into the scoring. Tasks require the examinee to:</p> <ul style="list-style-type: none"> • Plan an Event • Schedule a Work day • Decide on a Gift • Build a Case to Solve a Common Problem <p>Three types of scores are gathered for each subtest: time, accuracy and reasons. The tester timed (in minutes and seconds) and recorded the time taken by the participant to complete each of the four subtests. Accuracy of the solution to each sub-test is scored on a scale from 0 (no viable solution) to 5 (best possible solution) based on quantifiable scoring criteria. Similarly, the reasons given for the solution to each sub-test problem are scored from 0 (no adequate rationale) to 5 (fully adequate rationale). To compute total test scores (TIME, ACCURACY, REASONS), the values obtained for the four sub-tests are summed.</p>
Properties	<p><u>Inter-rater reliability:</u> (MacDonald & Johnson, 2005) was analysed by comparing the scoring of two speech-language pathologists on test results for 20 participants (10 ABI; 10 control). For the ACCURACY and REASONS scores of the four sub-tests across 20 participants, the kappa reliabilities were 0.81 and 0.85, respectively. A analysis also compared the ACCURACY scoring of the first author and a research assistant on one sub-test. The kappa reliability was 0.86 for this comparison.</p> <p><u>Sensitivity and specificity:</u> (MacDonald & Johnson, 2005) The sensitivity was 0.88 and specificity was 0.83. These values resulted in a positive likelihood ratio of 5.23 and a negative likelihood ratio of 0.14 (i.e., individuals with ABI scored below the cutoff 5.23 times as often as individuals without ABI and scored above the cutoff only 0.14 times as</p>

	<p>often as individuals without ABI).</p> <p><u>Concurrent validity</u>: the test can differentiate between adults with ABI and non-injured controls. (MacDonald & Johnson, 2005)</p> <p><u>Other</u>: The sizeable range of performance and small number of maximum scores shown by non-injured individuals minimized concerns of a ceiling effect. (MacDonald & Johnson, 2005)</p> <p>Standardized on adults with acquired brain injuries as well as a sample of non-injured controls (18-79 yrs). Individual performance can be compared to norms for time, accuracy, rationale, and a set of reasoning subskills. (MacDonald & Johnson, 2005)</p>
Advantages	<ul style="list-style-type: none"> • Is ecologically valid - fills a unique need for controlled assessment of the functioning of individuals with ABI within complex, verbal reasoning activities resembling those of daily life • Can administer single subtests • Employment status of people with severe TBI was strongly correlated with FAVRES Accuracy and Rationale scores in a prospective longitudinal study (Rietdijk, Simpson, Togher, Power & Gillett, 2013). • Demonstrated sensitivity for mTBI (Parrish et al., 2009) • Predictor for return to work • Variability between subtests • Doesn't need to be administered in full • Assesses all domains of communication • Looks at higher level cognitive linguistic skills that aren't captured using other standardized tests • Gives Speech Pathology the opportunity to comment on cognition in a standardized way • Good accessibility - Available in most TBI units clinically
Disadvantages	<ul style="list-style-type: none"> • Long administration time (20 min limit per subtest) • Interpretation can be difficult for novice clinicians and students • A certain level of skill is required to use the information to guide intervention • Minimal chance to look at natural discourse • American • An experienced skill set is required to complete the observational components • A large proportion of time is taken up with observing the client complete the written sections, which can make the client feel uncomfortable. • Test forms are expensive, as there are not a lot in a pack. • There are a number of printed resources that are required to complete the assessment. • Print is small for clients with visual impairments.

<p>Additional Information</p>	<p>The FAVRES – Student Version is also available (SFAVRES). SFAVRES recommended as a higher level assessment for adolescents with executive functions deficits (Turkstra & Byom, 2010). Adolescents with TBI performed below peers without brain injury on SFAVRES (Newsome et al., 2010).</p> <p>FAVRES revealed reduced speed and efficiency of performance on complex communication tasks when administered as part of a speech-language pathology assessment battery for soldiers with mild brain injuries sustained in combat (Parrish, Roth, Roberts & Davie, 2009).</p> <p>Applicability:</p> <ul style="list-style-type: none"> • To clients whose main difficulties are due to cognition • To clients who are experiencing difficulties with high level functional tasks • To clients who are performing well in the structured environment that is inpatient rehabilitation, to assist with identifying difficulties that they may experience on discharge <p>Lyn Turkstra: Would have added the FAVRES if standardization had been done by the time they published their report, & would recommend adding it. The normative sample is small, so cautions against calling it a standardized test. Likewise, as there is no formal cut-off for impaired performance, it is not considered diagnostic.</p> <p>Note that FAVRES-Adolescent will be available soon.</p>
<p>Reviewers</p>	<p>Leanne Togher</p>

References

- Rietdijk, R., Simpson, G., Togher, L., Power, E., & Gillett, L. (2013). An exploratory prospective study of the association between communication skills and employment outcomes after severe traumatic brain injury. *Brain injury, 27*(7-8), 812–8.
- Turkstra, L. S. & Byom, L. J. (2010). Executive Functions and Communication in Adolescents. *The ASHA Leader.*, (December 21).
- Newsome, M. R., Scheibel, R. S., Hanten, G., Chu, Z., Steinberg, J. L., Hunter, J. V., ... Levin, H. S. (2010). Brain activation while thinking about the self from another person’s perspective after traumatic brain injury in adolescents. *Neuropsychology, 24*(2), 139–47.
- Parrish, C., Roth, C., Roberts, B., & Davie, G. (2009). Assessment of Cognitive-Communicative Disorders of Mild Traumatic Brain Injury Sustained in Combat. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders, 19*(2), 47–57.