

<b>Outcome Measure</b>	<b>Dysexecutive Questionnaire (DEX)</b>
<b>Sensitivity to Change</b>	No
<b>Population</b>	Adult
<b>Domain</b>	Neuropsychological Impairment Behavioural Function
<b>Type of Measure</b>	Clinician, Informant and/or Self-ratings
<b>ICF-Code/s</b>	b1
<b>Description</b>	<p>The DEX is a rating scale designated to sample everyday problems commonly associated with frontal systems dysfunction. It can be used as a measure of awareness, by calculating a discrepancy score between self and informant responses.</p> <p>The DEX comprises of 20 items sampling four domains: emotional (e.g., “I sometimes get overexcited about things and can be a bit ‘over the top’ at these times”), motivational (e.g., “I am lethargic, or unenthusiastic about things”), behavioural (e.g., “I tend to be restless and ‘can’t sit still’ for any length of time”) and cognitive (e.g., “I have trouble making decisions, or deciding what I want to do”). The DEX has two forms, Self and Informant, which contain the same items, but phrased as appropriate.</p> <p>The DEX can be completed either independently by a clinician or an informant who has good knowledge of the person or as a self-rating. Administration time is generally brief.</p> <p>All items are rates in terms of frequency on a 5-point scale: 0 (never), 1 (occasionally), 2 (sometimes), 3 (fairly often), 4 (very often). Scores are summed and the total scores range from 0 to 80, with higher scores indicating greater problems with executive functioning. The discrepancy score to measure awareness ranges from -80 to +80; scores in the positive direction indicate that the informant endorses greater frequency of problem than the patient, suggestive of the patient having problems with awareness.</p>
<b>Properties</b>	<p><u>Internal Consistency</u>: &gt;.90 in 4 different types of raters (Bennett, Ong &amp; Ponsford, 2005).</p> <p><u>Construct validity</u>: The factor structure of the questionnaire may contain either 3 or 5 factors: (1) Behaviour, Cognition &amp; Emotion (Wilson et al., 1996); (2) Inhibition, Intentionality, Executive Memory, Positive Affect and Negative Affect (Burgess et al., 1998); (3) Inhibition, Intentionality, Knowing-Doing Dissociation, In-resistance &amp; Social Regulation (Chan, 2001). The DEX has higher correlations with similar constructs: (1) DEX-Inhibition vs TMT-B, <math>r = .43</math>; (2) DEX-Intentionality vs SET, <math>r = .46</math> (Burgess et al. 1998). The DEX has lower correlations with dissimilar constructs: Inhibition/Intentionality vs RBMT, both <math>r = .06</math> (Burgess et al. 1998).</p>

	<p><u>Inter-rater reliability</u>: neuropsychologist and OT ratings correlated .79 (Bennett et al., 2005). There is, however, conflicting evidence about the validity of the measure and this may be due to the skill of the rater (Bennett et al., 2005). Ratings by professionals (neuropsychs and OT) provide accurate information about the presence of executive dysfunction. Family ratings are less accurate (don't correlate with independent measures of EF; only moderate correlations with professional ratings; more accurate than patient ratings; may also reflect contact with patient (eg. Reduced family contact in rehabilitation).</p> <p><u>Test-retest reliability</u>: no information in available.</p>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Is a brief measure of self-reported and other-reported EF difficulties.</li> <li>• Covers several domains of executive dysfunction.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• The findings of several factor analyses have revealed that the DEX measures a series of related constructs, rather than one single construct (Bodenburg &amp; Dopsloff, 2008; P. W. Burgess, Alderman, Evans, Emslie, &amp; Wilson, 1998; P.W. Burgess, Alderman, Wilson, Evans, &amp; Emslie, 1996; Chaytor, Schmitter-Edgecombe, &amp; Burr, 2006; Simblett &amp; Bateman, 2011). This research suggests that it should be analysed as separate subscales in research, otherwise change score estimations may be misleading. However, it is unclear how these separate subscales should be decided, as factor analyses in the above studies were conflicting, with three-, four- and five-factor structures reported .</li> <li>• The questionnaire must be purchased in conjunction with the BADS.</li> <li>• Other measures such as the FrsBe and the BRIEF-A have superior psychometric properties and are available for purchase individually (without having to purchase an entire test battery). However, the DEX would be useful in circumstances where one wants to capture EF using a 20-item scale, rather than wading through the 46 items of the FrSBe or 75 items of the BRIEF-A.</li> </ul>
<b>Additional Information</b>	
<b>Reviewers</b>	<p>Skye McDonald Robyn Tate</p>

## References

- Bodenburg, S., & Dopsloff, N. (2008). The dysexecutive questionnaire advanced - Item and test score characteristics, 4-factor solution, and severity classification. *Journal of Nervous and Mental Disease, 196*(1), 75-78. doi: Doi 10.1097/Nmd.0b013e31815faa2b
- Burgess, P. W., Alderman, N., Evans, J., Emslie, H., & Wilson, B. A. (1998). The ecological validity of tests of executive function. *Journal of the International Neuropsychological Society, 4*(6), 547-558.
- Burgess, P. W., Alderman, N., Wilson, B. A., Evans, J. J., & Emslie, H. (1996). Validity of the battery: Relationship between performance on the BADS and ratings of executive problems. In B. A. Wilson (Ed.), *BADS: Behavioural assessment of the dysexecutive syndrome manual*. Bury St Edmunds, U.K.: Thames Valley Test Company.
- Chaytor, N., Schmitter-Edgecombe, M., & Burr, R. (2006). Improving the ecological validity of executive functioning assessment. *Archives of Clinical Neuropsychology, 21*(3), 217-227. doi: DOI 10.1016/j.acn.2005.12.002
- Simblett, S. K., & Bateman, A. (2011). Dimensions of the Dysexecutive Questionnaire (DEX) examined using Rasch analysis. *Neuropsychological Rehabilitation, 21*(1), 1-25. doi: Pii 931444558

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