**Supplementary Table 1.** Prefrontal cortex-dependent cognitive task

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| **Domain** | **Measure** | **Specific Brain Region** | **Reference** |
| **Information Processing** | Math computation | Orbitofrontal cortex, parietal cortex | Menon et al. (2000) |
| Math problem solving | LPFC, parietal cortex | Hoshi & Tamura (1997) |
| Digit symbol substitution | DLPFC | Nakahachi et al. (2008) |
| Symbol digit modalities test | Frontoparietal attentional network,  occipital cortex, anterior cingulate | Goldstein et al. (2004) |
| **Attention** | Visual search task | Frontal eye-field, DLPFC | Latto (1978) |
| Oddball | DLPFC, VLPFC | Halgren et al. (1998) |
| Paced auditory serial addition test | LPFC | Dietrich et al. (2004) |
| Visual vigilance task | Right LPFC | Pardo et al. (1991) |
| Spatial attention | Right LPFC | Corbetta et al. (1993) |
| Visuospatial attention | Bilateral PFC | Nobre et al. (1997) |
| **Intelligence** | Verbal fluency | Left DLPFC | Frith et al. (1991) |
| Wechsler adult intelligence scale | DLPFC | Duncan et al. (1995) |
| Wechsler test of adult reading | VLPFC | Waltz & Gold (2007) |
| Raven’s progressive matrices | DLPFC | Prabhakaran et al. (1997) |
| Wide range achievement test | Anterior cingulate | Goldstein et al. (2004) |
| Reasoning problems | DLPFC | Kroger et al. (2002) |
| Working Memory | Brown-Peterson task | VLPFC, mPFC | Fuster (1989) |
| N-Back task | DLPFC | Cohen et al. (1997) |
| Dual task | Mid-dorsal PFC | D’Esposito et al. (1995) |
| Reading span | DLPFC | Bunge et al. (2000) |
| Operation span | Left PFC | Smith et al. (2001) |
| Listening span | Left PFC | Osaka et al. (2003) |
| Spatial span | VLPFC | Milner (1971) |
| Digit span (backward) | Right VLPFC, left DLPFC | Owen et al. (2000) |
| Digit span (forward) | VLPFC | Jonides et al. (1993) |
| Spatial working memory | Right DLPFC | McCarthy et al. (1994) |
| Non-spatial working memory | Left DLPFC | Petrides et al. (1993) |
| Visual working memory | VLPFC | Ranganath & D’Esposito (2005) |
| Visual spatial working memory | LPFC | Owen et al. (2000) |
| Visual non-spatial working memory | LPFC | Owen et al. (2000) |
| Verbal working memory | Left DLPFC | Smith et al. (1996) |
| Face working memory | VLPFC | Baker et al. (1996) |
| Corsi blocks | VLPFC | Milner (1971) |
| Sternberg task | DLPFC | Rypma & D’Esposito (1999) |
| Delayed-response task | LPFC | Courtney et al. (1997) |
| Random number generation | Left DLPFC | Jahanshahi et al. (1998) |
| Unitary Construct | Wisconsin card sorting task | DLPFC | Berman et al. (1995) |
| Tower of London | DLPFC | Shallice (1982) |
| Tower of Hanoi | DLPFC | Goldberg & Weinberger (1988) |
| Inhibition | Go/No-Go task | DLPFC | Kawashima et al. (1996) |
| Stroop color/word task | Left LPFC, anterior cingulate | Pardo et al. (1990) |
| Simon task | Left DLPFC | Diamond (2002) |
| Flanker task | LPFC | Rafal et al. (1996) |
| Stop signal task | VLPFC | Rubia et al. (1999) |
| Attention network test | Anterior cingulate, LPFC | Bush et al. (2000) |
| Cognitive Flexibility | Trail-making test | DLPFC | Mesulam (2002) |
| Switch task | DLPFC, MPFC | DiGirolamo et al. (2001) |
| **Memory**  Episodic Memory | Paired associate learning task | VLPFC | Fletcher et al. (1998) |
| Free recall | VLPFC, DLPFC | Petrides et al. (1995)  Fletcher et al. (1998) |
| Cued recall | VLPFC, DLPFC | Buckner et al. (1995)  Petrides et al. (1995) |
| Memory Interference | Spatial reversal learning task | Hippocampus, MPFC | Guise & Shapiro (2017) |
| Delayed match-to-sample | DLPFC | Elliott & Dolan (1999) |
| Prospective Memory | Time-based & Event-based task | DLPFC, rostral PFC | Okuda et al. (1998)  Volle et al. (2011) |
| Implicit Memory | Implicit memory task | Left inferior PFC | Demb et al. (1995) |
| Auditory Verbal Memory | Rey auditory verbal learning task | LPFC | Juengling et al. (2000) |
| Verbal Memory | California verbal learning test | DLPFC | Goldstein et al. (2004) |
| Visual Memory | Benton visual retention test | DLPFC | Goldstein et al. (2004) |
| Wechsler memory scale | DLPFC | Goldstein et al. (2004) |
| Language-based Memory | Hopkins verbal learning test | VLPFC | Waltz & Gold (2007) |

*Notes*. PFC = prefrontal cortex, DLPFC = dorsolateral prefrontal cortex, LPFC = lateral prefrontal cortex, MPFC = medial prefrontal cortex, VLPFC = ventrolateral prefrontal cortex.

**Supplementary Table 2**. Non-prefrontal cortex-dependent cognitive task

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| **Domain** | **Measure** | **Specific Brain Region** | **Evidence** | **Reference** |
| **Reaction Time** | Basic choice reaction time | Brain areas that are not strongly related to PFC engagement  (e.g., sensory and motor cortices) | Requiring less higher cognitive abilities | Brisswalter et al. (1997) |
| Visual recognition task |
| **Intelligence** | Kaufman brief intelligence test | Requiring less higher working memory | Dietrich & Sparling (2004) |
| Peabody picture vocabulary test | Requiring less higher verbal ability |

*Note*. PFC = prefrontal cortex.