

# Minicog Rapid Assessment Battery

APTITUDE

# MRAB

## TEST DESCRIPTION

The MRAB is a unique battery of tests created by a research team led by Dr. Stephen Kosslyn, former Chair of the Psychology Department at Harvard University (and a member of Criteria’s Scientific Advisory Board). Funded by NASA, Dr. Kosslyn’s team originally designed the tests to measure the effects of prolonged space travel on the cognitive functions of astronauts. The MRAB is a series of nine short tests that measure a person’s “information processing” functions. MRAB-equipped Palm Pilots have even been taken up Mt. Everest by a team of climbers, who used the test to measure the effects of extreme altitude on their cognitive functions.

The MRAB has been patented by Harvard University, and Criteria holds an exclusive license for the commercial rights to the test. But why should Criteria’s customers care about a test that was designed to measure the cognitive performance of astronauts and mountain climbers? Recent findings in psychological research point out how the MRAB battery of tests can help companies identify productive future employees.

Exploring the ways in which the human brain works, and the relationship and interaction between mind and body, cognitive psychologists and neuroscientists are now rethinking ways in which we measure cognitive ability. Their research reveals that traditional instruments such as the IQ test and related cognitive aptitude tests yield only a partial picture of a person’s cognitive competency.

The MRAB is based on a newer understanding of cognitive competency that is broader than the traditional view of what constitutes “intelligence.” The MRAB tests a subject’s attention skills, powers of concentration, working memory, and problem-solving abilities, and can be seen as a kind of “cognitive fitness test,” or a “blood pressure cuff for the mind,” as Dr. Kosslyn calls it.

CANDIDATE INFORMATION		RESULTS SUMMARY			
Name: Angela Sample		<b>OVERALL SCORE</b> <span style="font-size: 2em;">98th</span> PERCENTILE			
Position: Network Administrator					
Test date: Jan 08, 2015					
Test Event ID: CRI-8350-KWLX					
RESULTS EXPLANATION: Angela Sample scored in the 98th percentile. This means that Angela scored better than 98% of the people who have taken this test.					
ATTENTION PERCENTILE		MEMORY PERCENTILE		REASONING PERCENTILE	
An indication of the ability to focus and maintain concentration on one or more tasks.		Measures the ability to remember, or “hold in mind” information.		Provides an indication of critical thinking, reasoning, and problem-solving ability.	
<b>90</b>		<b>97</b>		<b>93</b>	
<b>Divided Attention</b> Measures the ability to “multi-task” or concentrate on two or more things simultaneously.		<b>Verbal Working Memory</b> Measures the ability to remember stimuli and information.		<b>Visualization</b> Measures spatial reasoning ability, a cognitive competency that is useful in fields such as architecture, design, and engineering.	
Percentile <b>98</b>		Percentile <b>97</b>		Percentile <b>96</b>	
<b>Selective Attention: Vigilance</b> Measures the ability to maintain concentration on a task for a sustained period of time.		<b>Spatial Working Memory</b> Measures the ability to “hold in mind” stimuli and information.		<b>Logic</b> Measures deductive reasoning abilities, the ability to infer conclusions based on certain facts.	
Percentile <b>64</b>		Percentile <b>93</b>		Percentile <b>92</b>	
<b>Selective Attention: Filtering</b> Measures the ability to focus on important information and ignore irrelevant distractions.				<b>Information Ordering</b> Measures ability to process and synthesize information in a rapid fashion, an ability that is related to generalized reasoning ability.	
Percentile <b>76</b>				Percentile <b>23</b>	
		<b>Perceptual Reaction Time</b> - measures the ability to recognize and respond to a stimulus.		Percentile <b>76</b>	

## VALIDITY INFORMATION

*Construct Validity:* The MRAB has been shown to significantly correlate to other cognitive aptitude assessments, such as the CCAT. For a group of 355 people who took both the CCAT and the MRAB, the correlation between overall scores was .55. There were also significant correlations between MRAB sub-scores (attention, memory, reasoning) and overall CCAT scores.

*Criterion Validity:* The criterion-related validity of the MRAB/CAST has been established by various validity studies with employers in different industries. The MRAB, as a general aptitude measure, has been shown to correlate significantly to job performance in a range of jobs where critical thinking and problem solving are required.

## STANDARDIZATION SAMPLE

The MRAB was normed on a group of 700 individuals. The sample was made up of working adults aged 18 and over, consisting of incumbent employees from over 40 different companies. Positions included in the sample included software engineers, product managers, sales representatives, quality assurance engineers, and many more.

