

## **Cognitive Ability Testing - Myths Debunked**

There are many myths surrounding cognitive ability testing – often referred to as general mental ability tests (GMA). But what do these tests measure? Most cognitive ability tests measure numerical, verbal, and spatial ability. They are very efficient at explaining how well a job candidate will solve future problems and learn new work tasks.

Have you ever explained a new task to an employee and had them stare at you like a deer in the headlight, may be go away and do something completely different? Have you experienced employees that are constantly making mistakes – filling out orders incorrectly, feeding customers wrong information, or still doing work tasks incorrectly after several attempts to correct their work?

GMA tests are not tests of intelligence, although there is a correlation. These tests simply tell us how quickly and efficiently a future employee will be able to solve problems and how quickly they learn new tasks. They are also predictive of learning styles.

GMA tests are the most predictive of future job performance. Mike and Pam Smith (2005), in their book, “Testing People At Work” found that when one implements a personality profile and a GMA test, a validity of 0.65 is realised – a very significant result – and this does not take into account test results that are aligned to a specific job benchmark (a feature of the PREVUE assessment). This is the reason the team at AssessSystems strongly recommends clients add a GMA test along side the personality profile – If using PeopleCLUES or PREVUE this is included in one seamless assessment.

Let’s look at 5 myths that surround GMA testing as recently highlighted in an article in the American Psychologist – the prestigious official journal of the American Psychological Association.

### **Myth #1. GMA Tests Don’t Predict That Well.**

The authors reviewed some very large-scale studies that appear in the professional literature. In doing so, they found that large scale research consistently yielded favourable results with respect to the effectiveness of GMA tests.

For instance, the authors determined that when they took a combined look at studies involving 1.1 million job applicants, the research showed a sizable relationship between individual cognitive ability and the acquisition of job skills through training.

Additionally when looking at the effectiveness of these tests at predicting future job performance with studies involving 300,000 job applicants, the

authors determined that the performance of these assessments was “quite strong.”

### **Myth #2. GMA Tests Are Only Predictive of The Early Stages Of Employment.**

In reviewing the relevant research, the authors found that there is “strong” evidence that the predictive power of GMA tests extends well beyond the short-term when used as a hiring tool.

This conclusion was based on large-scale research exemplified by a study that tracked employees’ performance over the course of ten years. Here the researchers determined that across various occupations “...test validity was relatively constant through the 10-year period.”

Based on this information, the article concluded that GMA test scores “...are predictive of a variety of long-term indicators of academic and career success.”

### **Myth #3. GMA Tests Are Not Effective Predictors Of The Entire Spectrum Of Important Criteria At Work.**

Here the authors acknowledge the accuracy of the assumptions that these tests do not tap into all aspects of workplace behaviour. This is why we add personality, motivations, and attitudes assessments into the selection mix. When setting up a hiring system one must take a multi-step approach where each process is designed to predict various aspects of job success. A ruler is not flawed because it only measures height, rather than height and weight.

### **Myth #4. The Effectiveness of GMA Tests Is Limited To Very Low Ability Levels.**

Another common criticism levied against GMA tests is that they are only useful in screening out applicants with very low ability levels. Thus it is generally not appropriate to prefer higher-scoring individuals over lower-scoring individuals once a minimal score has been achieved.

In addressing this issue, the authors looked at 174 studies involving about 36,000 individuals. Based on this review, they concluded that there is “strong” evidence that higher test scores are commonly associated with higher levels of job performance throughout the range of test scores.

### **Myth #5. GMA Tests Are Not Fair To Racial Minorities.**

Are GMA tests fair? That is, does a specific test score have the same meaning regardless of subgroup membership (eg, race) or will employees

who perform at the same level tend to earn the same test score even when they are from different subgroups? In their review, the authors indicated that there is “extensive” evidence, particularly from the educational domain, which indicates that GMA tests are not biased, regardless of an individual’s racial subgroup status.

## **Conclusion**

All things being equal, if you could apply just one test, a GMA test would be the most predictive test of employee performance. Whether you are hiring a warehouse person that will be counting stock and filling orders or a top-line executive that needs to learn and solve complex daily problems, you would be foolish not to include some form of GMA testing.

Many of the employee selection assessments we use at AssessSystems include GMA testing alongside personality, motivations and attitudes – [PREVUE](#) and [PeopleCLUES](#), or they can be administered as a stand-alone – Wonderlic and Thurstone are two very good examples.

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## **Source:**

Dr David W. Arnold – General Counsel, Wonderlic Assessment, USA  
Smith, M. Smith, P. (2005). *Testing People at Work*. MA. USA: Blackwell.