



PAF

Personnel Assessment Form

Douglas N. Jackson, Ph.D. © 2004

Modern Measure of Cognitive Ability



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About SIGMA Assessment Systems, Inc.

- **Established in 1967.**
 - Founded by **Douglas N. Jackson, Ph.D.**
 - Founding member of the **Association of Test Publishers.**
- **International reputation for excellence.**
 - SIGMA's cognitive ability measure, the MAB-II, was used in the selection of **NASA** astronauts, and **US Air Force Pilots.**
 - SIGMA's assessments have been translated into over a dozen languages, and SIGMA licenses its Intellectual Property to test publishers throughout the world.
 - The Career Direction Inventory, an assessment developed by SIGMA, is one of the most widely used career assessments on the Internet.
 - SIGMA successfully implemented a large-scale global rollout of 360 Degree Feedback to over 35,000 employees of **DaimlerChrysler.**
- **Satisfied clients include:** Golf Town, Chapters Indigo Canada, Spinx, Kellogg's, Krispy Kreme Doughnuts, Great Clips, IKEA, EZCorp, Best Buy, Safeway, Sunswept Resorts, Giant Tiger, Schreiber, Wyndham Hotels and Resorts, American Airlines, Shred-It, PriceWaterhouseCoopers, US Army, British Airways, and many more.



About the Author

A World Authority on Human Assessment



About Dr. Douglas N. Jackson, Ph.D.:

- Former Chair: American Psychological Association's (APA) Committee on Psychological Tests and Assessments.
- Former President: APA's Division of Evaluation, Measurement, and Statistics.
- Awarded the "Samuel J. Messick Award" for Distinguished Scientific Contributions.
- One of a very few US Citizens elected a Fellow of the Royal Society of Canada for contributions to science.
- Published over 200 articles in scientific journals and several dozen book chapters.
- *Over 3 million people have taken assessments authored by Dr. Jackson.*

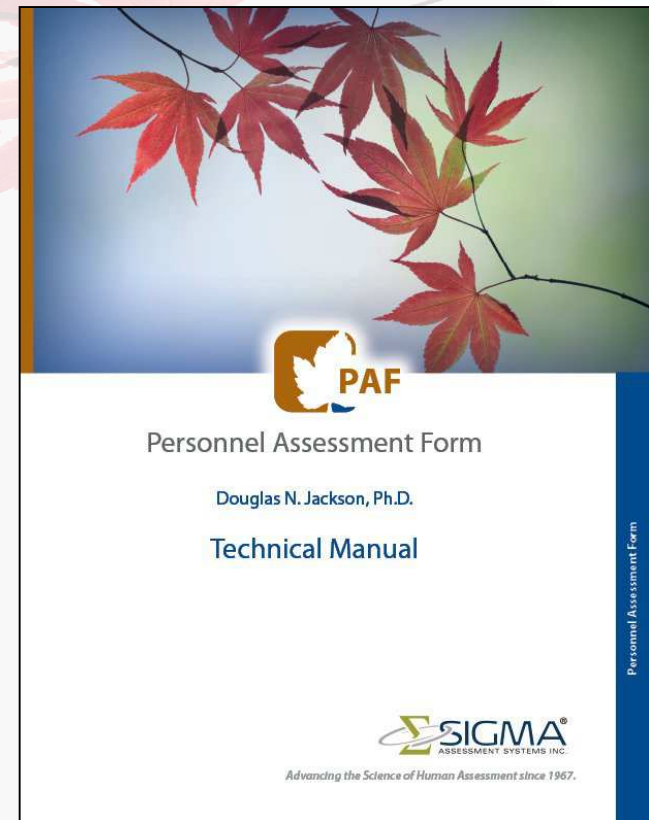
Personnel Assessment Form (PAF):

QUICK FACTS

- An efficient, accurate measure of general cognitive ability or intelligence.
- Easy to administer and interpret.
- Administration Time: 15 minutes.
- Appropriate Age Group: 16 and over.
- Level A: No special training required beyond reading technical guides.
- Scoring: Online at www.SigmaTesting.com and paper & pencil with 24/7 fax-in service.

Personnel Assessment Form (PAF): APPLICATIONS

- *Personnel selection:* Can be used in the assessment of job candidates, and for placement planning.
- *Career counseling:* A useful aid in formulating career and educational plans.
- *Psychological research* into intellectual processes and their relationship to other constructs, such as job performance, and learning.



Distinguishing Features of the PAF:

Distinguished Pedigree and Expert Development

- Inspired by the *Multidimensional Aptitude Battery-II (MAB-II)*, a world-class mental ability assessment that has been used to select NASA astronauts.
 - The development of the PAF followed the extensive procedures used by Jackson (2003) to construct the MAB-II.
- The PAF is available in two forms:
 - Form A contains more difficult items and is more accurate at the higher range of scores than Form C.
 - Form C is more accurate at the lower range of scores.

Distinguishing Features of the PAF:

Strong Predictor of Job Performance

- Thousands of studies have provided evidence that tests of general mental ability predict successful job performance across a wide variety of jobs and situations (Schmidt & Hunter, 1998).
- Individuals scoring high on the PAF tend to be rated by supervisors as having greater promotability (Gellatly, Paunonen, Meyer, Jackson, & Goffin, 1991).
- The Verbal dimension of the PAF was found to predict higher supervisors ratings of written and verbal communications, and higher ratings on managing and training employees (Ibid., 1991).

PAF Profile Dimensions

- Verbal subtest
 - Includes 36 multiple-choice items that assess accumulated knowledge of diverse topics, words, and verbal concepts, as well recognizing similarities among the properties of different objects and concepts.
- Quantitative subtest
 - Includes 21 numerical problems with multiple-choice response options measuring reasoning and problem solving abilities.

PAF Sample Report

- Scale descriptions.
- Raw scores for verbal and quantitative scales, and total (overall score) scale.
- Percentile scores and graphic profile for verbal and quantitative scales, and total scale.

Personnel Assessment Form (PAF)

Report for: **Sam Sample**

Form Administered: **A**

Administration Date: **Jul 22, 2007**

General Mental Ability (GMA)

The PAF is a measure of General Aptitude, or General Mental Ability (GMA). GMA is an indication of one's ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, and learn quickly from experience. Research has consistently demonstrated that GMA is one of the best predictors of job performance, across a variety of jobs. GMA becomes increasingly important as jobs become more complex and ambiguous. Thus, a high score is generally necessary to perform well in highly complex jobs, is an advantage in moderately complex jobs, but provides less of an advantage in very simple and routine work.

PAF Scores

The PAF makes use of two subtests, **Verbal** and **Quantitative**, to measure General Mental Ability. The Verbal subtest of the PAF measures general verbal aptitude (e.g. knowledge of words and verbal concepts), and the Quantitative subtest measures math ability, reasoning ability, and problem solving skills. The Verbal and Quantitative subtests are combined to derive an **Overall Score** of General Mental Ability.

Results:

	Raw Score	Percentile Score	Low	10	20	30	40	50	60	70	80	90	High
Verbal Subtest	33	99											
Quantitative Subtest	17	99											
Overall Score	50	99											

Explanation of scores: Each raw score indicates the number of questions this job candidate answered correctly. Each percentile score indicates the percentage of people in a comparison group of job applicants who received a lower raw score than this job candidate. 50 is an average percentile score. For more information on percentiles and how to properly interpret this report, please refer to the PAF manual.

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Norms & Reliability

- Norms:
 - Form A: Linear linking to MAB-II norms. Normative sample of 363 men and women from North America.
 - Form C: Normative sample of 245 blue-collar employees.
- Reliability:
 - The coefficient alphas for the verbal and numerical PAF subscales were 0.89 and 0.87, respectively.

Validity of the PAF

- The PAF has also shown good convergent validity with the MAB-II and another established measure of cognitive ability ($r = .80$ and $r = .85$, respectively).

*“ Cognitive Ability Is the Single Greatest **Predictor of Success** for Virtually Every Job. Individuals Scoring High on the **PAF** Will Learn More Quickly and Are Less Prone to Turn Over.”*