Psychometrics: How it can be a game changer in 2018?



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[1] Introduction

Over the last decade, psychometric assessments moved from being a luxury into becoming an industrial norm across different stages of the employee lifecycle. It's become an integral part of the business world.

Despite the encroachment however, the field remains largely vague to most people not labelled professionals in the field of psychology. And many overlook the aspect of measurement.

In fact, almost all domains of applied psychology unite under the concept of measurement. Psychometrics are designed to do just that, and the term itself is an abbreviation for 'psychological measurement'. ^[1]

In most cases, psychometrics includes a combination of **personality and cognitive tests**. And for the longest time, they've been splitting hairs in the organizational ecosystem.

It's easy enough to find a camp of seasoned professionals labelling the test as a valuable resource, and another that brands the same as a pseudo-scientific pile of crock. If you'd like to know which side works more strongly than the other? It would help to continue reading. Perhaps you find out if it's worth your time along the ride.



[2] What Do You Know About Personality Tests?

Paper & Pencil personality tests in an organizational context was near non-existent prior the beginning of the 20th century. In fact, contemporary application of these measures and tests for personnel selection could be attributed to the field of management science and turn-of-the-century industrial psychologists.

Interestingly, through the aftermath of World War I, with the expansion of American business in terms of size, complexity, competition and employee regulation, the development of rational management systems pushed into the spotlight. It recommended the application of scientific methods to organizational problems.^[2]





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[2.1] Early Issues & Current Scenario

The distinction between industrial psychology and scientific management reached its apex when psychologists began to emphasize the importance of individual factors such as intelligence and personality over contextual factors such as incentives.^[3]

But, while cognitive ability testing emerged with established and strong acceptance, personality tests failed in terms of recognition or trust. Without any support, the use of personality tests in employment selection evoked controversy. ^[4] In fact, several experts concluded that personality tests used in personnel selection lacked validity, were easily faked, and generally unsuitable for pre-employment screening.

While this was largely remedied by the Five Factor Model (FFM or Big 5) well into the second decade of the 21st century, personality tests are still frowned upon with substantial doubt. But evidence suggest that the popularity of these personality tests is on the rise, with a sizable amount of big companies using them one way or the other in much of their processes.





You could equate personality testing to the marmite of the business world, and its sceptics are just as passionate as its advocates.

There are cases that recommend observation:

1. In 2014, personality tests came under hot water in the UK after a bank chief was hired based on his test results. With almost zero experience in finance, **Reverend Paul Flowers was pulled in as chairman of Co-Op Bank for a lucrative salary based on exceptional results on his personality test.** He was later forced to resign in ignominy over a £1.5 billion black hole in Co-Op's balance sheet.^[5]

2. VIA - an American organization for psychology - branded their own personality test as a failure, recommending a UK Government Agency to stop using it for jobseekers. After failing its scientific validation, the test was discredited.^[6] Yes. This was an official government agency using the test. Worrying. Marmite is a sticky, brown food paste with a distinctive, but powerful flavour. It's salty to say the least, and its unique nature propelled the company's marketing slogan to echo, "Love it or hate it." Its prominence in British popular culture has since transformed marmite into a metaphor for something that is an acquired taste or tends to polarise opinions.

Nonetheless, personality tests by itself and in combination to build onto psychometric tests have undergone multiple bouts of improvements.

It might be wise to not dismiss it despite evidence that suggests otherwise, at least for the time being.

Interesting Fact:



[2.2] Would You Trust Personality Tests?

By raw definition, personality tests gather information about an individual to make inferences about personal characteristics. These include feelings, behaviours, or thoughts. They are designed to measure aspects of personality that determine or are predictive of:

| Successful Performance at Work | | Task Management | | 7 |
|--------------------------------|------------|-----------------|----------|---|
| Workplace Relationships | Motivation | | Feelings | S |

But coming to the basic question,

Would you trust personality tests?

Models of personality have ranged from Eysenck's 2-dimensional personality model to Cattell's 171 traits with a ton of others in between.^[6] With the development of sophisticated meta-analytic techniques, researchers have been able to aggregate specific traits into broad behaviours that define job performance. ^[7]

Thinking Style



In the 1990s, estimates of the validity of personality testing inched toward the development of factorial approaches that have come to be known as the Big-Five Personality Dimensions - Extraversion, Openness to Experience, Neuroticism, Conscientiousness, and Agreeableness.

These factors have shown to reliably predict ratings of job and training proficiencies.^[8] Despite modern flaws, and even those mentioned in [2.1], these tests have proven to be successful also.

GROW Leadership Development Initiative

Between 2015-16, KPMG pioneered GROW - a leadership development initiative sponsored by Melanie Richards, KPMG Vice-Chair & Diversity Champion - aimed to identify key barriers faced by under-represented groups, including women. It used internal programmes and training to break them down.^[9]

The 9-month initiative included an amalgamation of group coaching, action learning sessions, and workshops in addition to personality testing and networking. It resulted in 15% of GROW delegates receiving promotions in 2016.

It's interesting to note that from this example, and from many others - personality assessments are rarely among tests to be considered on a standalone basis. They do function best in combination with a battery of others. It's why you're likely to find different recipes to psychometric assessments, the most common pairing being between personality and cognitive tests.



[3] What Do You Know About Cognitive Tests?

Cognitive tests are all about measuring your competence and intellectual capabilities. It also works into understanding your logical and analytical reasoning abilities in a very specific area. This translates to a reasonably accurate assessment of your abilities to use specific job-related skills and to predict consequent job performance.

They are generally time-limited with results measured against past test-takers; this extrapolates into a comparable assessment of a person's level of ability or aptitude.





[3.1] Cognitive Ability Testing & Fairness in Selection

Despite high utility and predictive validity by cognitive tests, few use them as selection tools. A reason for this is in cognitive tests' inherent issue in producing group differences or adverse impact.^[10] For example, African-Americans or Hispanics score lower in comparison to the general population. At the same time, Asian-Americans tended to score higher.^[11]

No. I'm not being racist. These are facts. Interestingly, legal challenges to cognitive ability testing began with the *famous 1971 Griggs v*. *Duke Power case*. In the case, the Supreme Court ruled that when a selection test produces adverse impact against protected groups, the company must furnish a defence by showing that use of the test is a *business necessity*.

Historically, courts have held narrow interpretations of business necessity that require companies to show that no other plausible or acceptable selection alternative exists. In consequence, several companies abandoned the use of cognitive tests. ^[12]

Over the years, there have been several attempts to mitigate this such as norming or banding.



[3.2] Would You Use Cognitive Tests?

To reach a conclusion using an aptitude or cognitive test is erroneous, to say the least. But the test doesn't come without its benefits. There are instances where cognitive tests find popular and legitimate use; the opposite holds true also.

When is it a good idea to use cognitive tests?



Filtration

Specificity of Technical Skills



1. Filtration: A larger candidate base often requires filter. Aptitude testing is always an easier, faster, and more efficient process to narrow down the candidate pool.

2. Nature of the job: When the job is more technical in nature than managerial, the measurement of a candidate's aptitude will provide a much better understanding of his or her potential.

3. Specificity of Technical Skills: When said job requires specific technical skills. For example, we expect content writers to weave some magic with their words, which is why they test for high verbal comprehension. A physically demanding job would require a physical fitness test. Therefore, if the skills are specific, measuring aptitude in that domain improves the validity of that result.

4. High Job Complexity: For a highly complex job, cognitive ability is the best indicator of performance.

For that last point, I have a special example. Take spy work; being an asset to RAW is by no means an easy task. An agent trained to be the eyes and ears of their country outside its borders requires superior intelligence.^[13] It is not all fancy Bond gadgets and cars. In fact, agents of RAW are screened through several intelligence tests – physical, language, and logical, to name a few.



When is it a not good idea to use cognitive tests?

1. One Piece of a Puzzle: Cognitive assessments are only one piece of the bigger picture. Making decisions about anything based solely on one, or even a series of aptitude tests, leave much to be desired for in a candidate. There are competencies. Intrapersonal skills. These assessments are not one bit a substitute for all forms of pre-employment testing.

2. For Managerial Roles: Intelligence is a factor, but for a role heavily dependent on competencies such as leadership, influence, and networking, cognitive assessments will provide no more than half-baked results.

3. When Experience Trumps Numbers: You must have heard about succession planning. How about hires made due to performance shown in specific situations? Meritocracy trumps hard numbers sometimes. Tim Cook debatably succeeded Steve Jobs for that very reason. ^[14] Hiring in certain cases should value experience over scores in an assessment.



[4] Where Do You Stand with the Facts? Client Speak

By now, it's easy enough for you to assess that both personality and cognitive tests come with their unique set of pros and cons. In combination, they transform into a science that augment decisions into a stratosphere unexplored. Psychometrics is something that can be used rather extensively – be it hiring, L&D, or appraisals. It's a pony you should ride if your designation contains the acronym: HR.

Let's make it a little special, considering its Christmas. Let's show you how it works both ways:

TALENT ACQUISITION LEARNING & DEVELOPMENT





[4.1] American Axle: Placing Employees for Optimal Performance

A tier-1 player in the automotive supplier industry, AAM employed an army of skilled engineers scattered across different functions within the organization. However, time revealed a couple of cracks in their workforce structure.

1. Unidentifiable Employee Buckets

With a multitude of engineers, AAM sought efficiency by bucketing their employees into component, systems & application engineers.

2. Behavioural + Technical Competency Analysis

While AAM understood the varying competencies required both technically and behaviourally to bucket their engineers, the execution of the same proved puzzling. In association with Mettl, AAM realigned their employees into buckets most suited to optimizing overall workforce performance. It was brought to fruition using:

1. Integrated Cognitive)

Psychographic profiling unveiled innate behavioural competencies; the cognitive segment of assessments worked to reveal an employee's adeptness to one of the three buckets: systems, application and component.

2. Diagnostic Reports

Post-Assessment diagnostic reports were delivered to both managers and engineers. While the employee report provided detailed insights based on what was revealed, including strengths and areas of development, the manager reports possessed added recommendation on how best to use the data presented.

1. Integrated Assessments (Psychographic +



The project included 450 employees. Assessments – both personality and cognitive in nature – provided managers with employee inclination towards a particular bucket and a roadmap to creating individualized development plans.

In conclusion, AAM was able to map their workforce more efficiently behind proof of hard, data-driven analytics and numbers.

[4.2] Birla Sun Life Insurance: Hiring for Quality with Reduced Time & Cost

Birla Sun Life Insurance (BSLI) faced a couple of issues despite a widely impressive campus recruitment strategy. It shadowed common challenges such as:

Increased Expenditure Extensive Operational Coverage **Increased Team Bandwidth Increased Efforts on Logistics**

The idea was to find the ideal candidate, anytime or anywhere. The idea was to provide opportunities to campuses PAN-India. The idea was to scale, and smartly at that. They partnered with Mettl, starting the relationship off with one of the company's most primed requirement: Hiring Relationship Managers for their Asset Management Team.



Our solution included a combination of:

1. Personality Assessments

Determined soft competencies linked to cultural synergy between employee and organization; directly impacts performance.

2. Cognitive Assessments

Data-driven analytics from information derived from aptitude tests are often what defines a candidate's growth pattern and potential to learn within an organization.

We managed to conduct over some 1000 assessments for them in a two-year span. Some of the added benefit received were :

1. Customization

We've often been known to customize our solution based on the problem at hand. It results in unique perspective based solutions derivative of a company's defined set of challenges.

2. Minimal Logistics

Cost & Time were scaled down to laughable numbers because of the digital solution that cut down logistical hassles bound to drive up effort.

3. 24×7 Operational Support

A strong 24×7 support team walked BSLI representatives from test technology to on-ground support and more.



Well, there you have it. The basics, what you can expect in terms of advantages and disadvantages, and a couple of case studies for a relatable aftereffect. We're only a call away for any and all HR related challenges, and who knows, we just might do a Christmas Giveaway this month.

Stay frosty. And, Godspeed!



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What is Mettl?

Mettl is a Saas based assessment platform that enables organizations to create customized assessments for use across the entire employee lifecycle, beginning with pre-hiring screening and candidate skills assessment, training and development programs for employees/students, certification exams, contests and more.

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