

## Assessment Tool Norms & Interpretations

Psychometric assessment tools are “normed” against **comparison groups**. Rather than looking at individual items, we look at the total score for an individual on a scale or test and then compare this to others.

The reason for this is that a test score of 20 correct out of 40 is meaningless unless you know how others at a similar level to the individual have performed on the same test. This is particularly important when interpreting ability assessment results.

### How Do We Use Norm Groups to Interpret Ability Test Results?

A number of factors need to be considered when evaluating ability results.

#### ◆ Percentiles as the Norm

- Most results are interpreted as a percentile result. A percentile is a ranking system that standardises a raw score against a population of others who have taken the assessment.
- The ranking is out of a hundred and the percentile reports where the person would fall if ranked against 100 others. As such if a person falls at the 30th percentile they are as good as 30 out of 100; if a person falls at the 70th percentile they are better than 70 out of 100, etc.

#### ◆ Comparison with an Appropriate Norm Group

- It is important to consider which norm group the candidate is being compared to.
- Some assessments only have managerial norms to compare to and others have broader norm groups.
- If we are assessing for a managerial role we ideally would like to compare the individual to their peers and as such a managerial norm may be appropriate.

#### ◆ Interpreting within the Context of the Role

- Performing at an average or below average level on an assessment needs to be interpreted with caution as it may well be within the zone that is acceptable for the role.
- For example, if the role has some numerical work but generally this work is not done under time pressure, someone with a below average result on a numerical reasoning test may be OK given the context of the problem solving.

#### ◆ Response Style

- Where possible it is critical to take into account the candidate’s response style when interpreting a percentile score.



- Things to consider include how quickly they completed the assessment and their level of accuracy.
- Some people may prefer to go slowly through tests and emphasise accuracy, others may be fast and get through a lot of items but their accuracy may be poor.

## How Do We Interpret Personality Assessment Results?

Like ability tests, personality test results are only meaningful when compared to a norm group.

With personality assessments:

- ◆ There are no right or wrong answers
- ◆ We are measuring preferences that people have compared to others
  - For instance, is the person typical of the norm group on a personality attribute such as “social confidence” or do they have a stronger or less strong preference for this attribute than the norm.
- ◆ The strength of the preference either way may be suitable for a role or potentially less suitable, depending on the competencies and attributes related to that role.
- ◆ To ensure personality results are meaningful and combined correctly they need to be interpreted by trained personnel or psychologists.

Some assessment tools can only be by psychologists or those with advanced training in psychometrics, due to the complexity involved in understanding the tools and ensuring their correct use.

## Niche Consulting Norms

Niche Consulting has developed NZ norms for many of the assessments we recommend. These norms are split into specialised job groups and different levels, as listed in the below table. We also have the expertise to build norms for our clients over time.

Norms	EAS1	EAS6	EAS7	IQ	WG	CPI	PRB	Ravens IQ
<b>Test Maker Norms</b>								
- General Population	✓	✓	✓	✓	✓	✓	✓	✓
<b>Niche Consulting Norms</b>	All the following norms consist of people assessed within NZ (and a small % Australian) and belong to Niche Consulting							
NZ Business	✓	✓	✓	✓	✓	✓	✓	✓
Administrative Staff	✓	✓	✓	✓		✓		
Customer Service Non-Managerial	✓	✓	✓	✓		✓	✓	



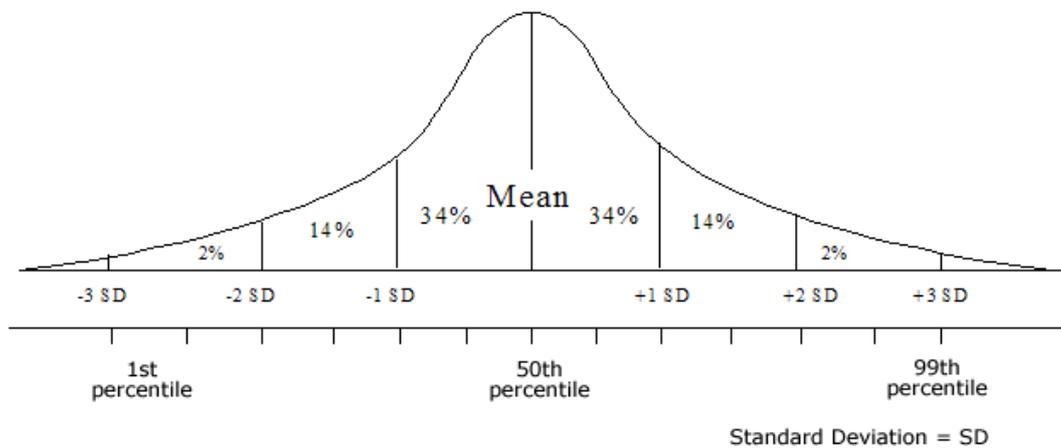
*Where assessment expertise is part craft and part science*

Sales Non-Managerial	✓	✓	✓	✓		✓		
Marketing Non-Managerial	✓	✓	✓	✓		✓		
Technical Non-Managerial	✓	✓	✓	✓		✓		
IT Non-Managerial	✓	✓	✓	✓		✓		
Finance Non-Managerial	✓	✓	✓	✓		✓		
Line Manager	✓	✓	✓	✓		✓		
Sales Manager	✓	✓	✓	✓		✓		
Marketing Manager	✓	✓	✓	✓		✓		
Technical Manager	✓	✓	✓	✓		✓		
IT Manager	✓	✓	✓	✓		✓		
Finance Manager	✓	✓	✓	✓		✓		
Specialist Manager	✓	✓	✓	✓		✓		
Senior Line Manager	✓	✓	✓	✓		✓		
Executive Manager	✓	✓	✓	✓		✓		
HR Consultant	✓	✓	✓	✓		✓		
GM/CEO	✓	✓	✓	✓	✓	✓		

### **Test Descriptions**

- ◆ EAS1 – Verbal comprehension
- ◆ EAS6 – Numerical reasoning
- ◆ EAS7 – Verbal reasoning
- ◆ WG – Watson Glaser Critical Thinking
- ◆ CPI – California Psychological Inventory
- ◆ PRB – Personnel Reaction Blank
- ◆ IQ – Wonderlic Intelligence
- ◆ Raven IQ – Raven Standard Progressive Matrices

Norms tend to follow the normal distribution curve, which for percentiles has the norm at 50<sup>th</sup>ile and the ends of the bell curve nearing 0 and 100.



Most test publishers such as Hogan, SHL, and ACER have their own norms for their tests. However, it is important to note that some ability test norms from publishers can be quite skewed, which means they may be harsher than they first seem.

For instance some test providers collect their normative data by asking test users to send in their data or supply it from online testing sites. The problem with this technique compared to conventional techniques (trailing it on a large group of randomly selected people) is that most test takers for selection have already pre-screened applicants through CV screening and interviews prior to an individual getting to the assessment stage.

Therefore, these individuals may not be truly representative of the normative group but may already be at the top end of the group. When this occurs you may be assessing an individual against the “cream” of management or business rather than a truly broad representative group.

This is where using a test that has true general population norms is advantageous as you can see how the individual compares to a broad norm representing “everyone” from all walks of life and occupations, as well as comparing them to a norm more representative of the people in their occupation.