1 January 2019

Combined Results Report

Simone
Sample

MindmetriQ

Report Information

This report has been generated using results from the MindmetriQ assessment tool, which measures a person's general cognitive ability. The section entitled 'The Science: Spearman's g' explains the scientific grounding behind the MindmetriQ assessment tool.

The information contained in this report is confidential and should be stored securely.

Due to the way people's abilities may change over time, the information in this report is likely to remain valid for up to 24 months after taking the assessment.

Assessment Information

MindmetriQ assessments are adaptive, which means the difficulty of the test automatically adapts to the candidate's ability as each question is answered. A correct answer causes the next question to be more difficult, and an incorrect answer causes the next question to be slightly easier. The score weighting of each question is determined by its difficulty, so difficult questions are worth more than easier questions.

Adaptive tests are better than traditional fixed-form tests at predicting a candidate's true ability, and it also means candidates don't waste time being asked questions which are too far above or below their ability level. MindmetriQ assessments automatically pick questions from a large bank of questions of varying difficulty, to make sure each test is secure against cheating and tailored to the candidate.

It is unlikely that any two candidates will experience exactly the same set of questions, which helps to control over-exposure of questions and increases test security.

Disclaimer

This report has been computer-generated and it cannot be guaranteed that this report has not been changed or adapted from the original computer-generated output.

Test Partnership accept no liability for the consequences of the use of this report.

Contents

Page	Title

What is MindmetriQ™?

The MindmetriQ™ series of gamified assessments combine established psychometric science with enterprise digital assessments to predict job performance. The gold standard of predicting workplace performance is General Mental Ability (GMA). In Spearman's important research GMA was often referred to simply as 'g'. The MindmetriQ™ assessments have strong correlation with 'g', and therefore are valid predictors of job performance.

All questions in the MindmetriQ™ assessments are adaptive which means the assessments dynamically adjust in difficulty to suit the candidate. This adaptive technology is more secure and more accurate than a traditional psychometric assessment, whilst also giving better candidate

The Science: Spearman's g

'*Spearman's g*' can be defined as "a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience" [1].

Research shows that general cognitive ability, also known as Spearman's *g* (or just '*g*'), is the strongest individual predictor of job performance [2]. This is especially true in complex professional and managerial work, where *g* (or general cognitive ability) accounts for more than 50% of variability in job performance [3].

Every job - to a greater or lesser extent - requires problem solving, learning, planning, and applying rules. General cognitive ability determines performance in these domains.

[1]   Gottfredson, L. S. (1997). Mainstream science on intelligence: An editorial with 52 signatories, history, and bibliography.
[2]   Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. Psychological bulletin, 124(2), 262.
[3]   Schmidt, F. L., Oh, I. S., & Shaffer, J. A. (2016). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 100 years of research findings.

Research shows individuals with greater cognitive ability are better able to (among other things): deal with unexpected situations; learn and recall job related information; reason and make judgements; identify problems to situations quickly and apply common sense to solve problems [4]. As a result, no other single known psychological variable predicts future job performance in complex work more effectively than *g*.

The most robust way to measure *g* is to measure its constituent parts. General cognitive ability refers to a broad range of cognitive skills, not just one or two. When you measure several specific cognitive abilities and average their scores, you cancel out the non-relevant variance, and arrive at a purer measure of *g*. Similarly, research shows that more cognitively-complex tasks make for better measures of *g* [5]. Therefore, to best measure *g*, several cognitively-complex tasks should be chosen, rather than a few simple tasks.

Traditional aptitude tests are partial measures of *g* (for example they might measure only verbal reasoning ability). Given that candidates typically complete only one or two traditional aptitude tests, the g-measure is sub-optimal. The MindmetriQ series of gamified assessments offers up to six distinct cognitive tasks, which provides a more comprehensive measure of *g*, and thus a more valid and accurate prediction of future job performance.

Moreover, because traditional aptitude tests rely on static text and images, the cognitive complexity of the tasks is limited. Gamified assessments such as MindmetriQ introduce dynamic and reaction-based elements, which allows for a far broader range of cognitive abilities to be taxed within a given task. As such, they measure *g* more accurately than traditional aptitude tests.

In summary: although traditional aptitude tests are powerful predictors of job performance, well-designed, psychometrically-rigorous gamified assessments with high cognitive loading can be even better. The MindmetriQ series allows us to measure a wider range of complex cognitive tasks compared to traditional aptitude tests, which enhances the measurement of *g*. By improving the measurement of *g*, we increase the predictive validity of the assessment. Increasing the predictive validity of the assessment increases its utility in an employee selection and assessment setting.

[4]   Gottfredson, L. S. (1997). Why g matters: The complexity of everyday life. Intelligence, 24(1), 79-132.
[5]   Marshalek, B., Lohman, D. F., & Snow, R. E. (1983). The complexity continuum in the radex and hierarchical models of intelligence. Intelligence, 7(2), 107-127.
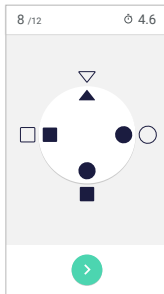
The Assessments: Overview

The six gamified assessments which form the MindmetriQ series each measure a specific facet of g.
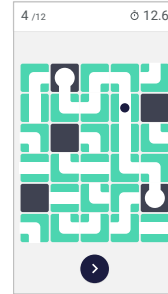
Net the Numbers (Numerical)
Facets measured: quantitative reasoning, working memory capacity, visual processing.
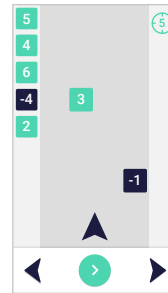
Number Racer (Numerical)
Facets measured: quantitative reasoning, perceptual speed, memory span.
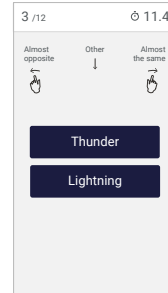
Shape Spinner (Logical)
Facets measured: speeded rotation, visualization, serial perceptual integration.

Pipe Puzzle (Logical)
Facets measured: spatial scanning, visual memory, flexibility of closure.
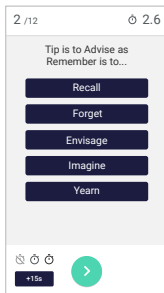
Word Logic (Verbal)
Facets measured: reading decoding, processing verbal information, cloze reasoning (missing information).

Link Swipe (Verbal)
Facets measured: lexical knowledge, processing verbal information, grammatical sensitivity.

Overall Combined Score

This score gives Simone's overall score averaged across all the individual assessments. This combined score is a more valid predictor of job performance than the result of any individual assessment on its own because the combined score is a better measure of general cognitive ability.

78
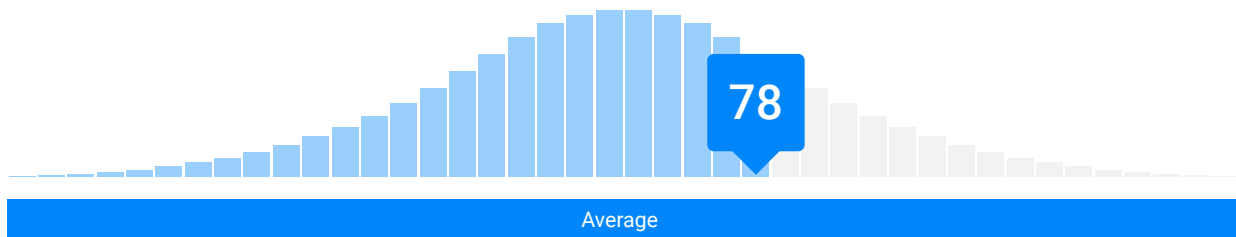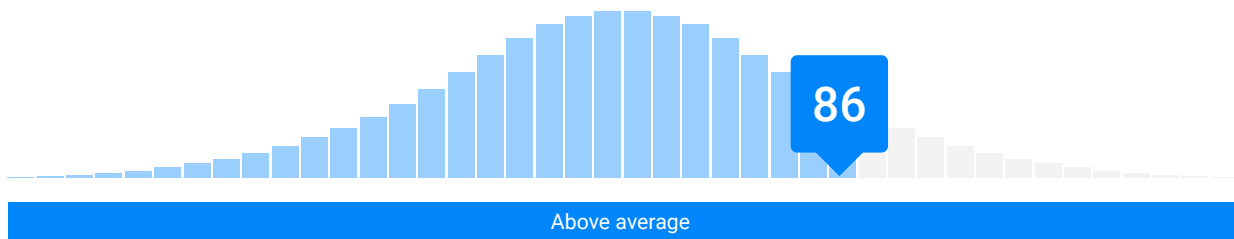
Average

78   Percentile score

7   Sten score

Compared to the chosen reference group, Simone's overall performance across all assessments indicates an above average level of general cognitive ability.

Individual Assessments

Net the Numbers	86
Number Racer	27
Shape Spinner	78
Pipe Puzzle	81
Word Logic	89
Link Swipe	54

Results: Net the Numbers

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.

86

Above average

86	Percentile score
8	Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is above average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.

Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 84
Administrative, operational, apprentice and non-graduate staff: 89

Results: Number Racer

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.

21
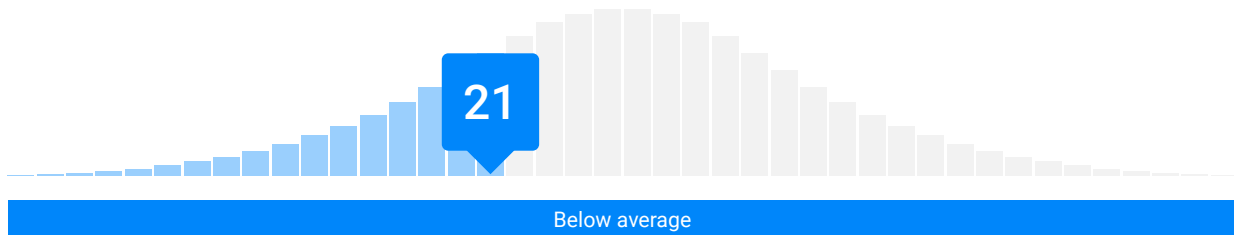
Below average

21	Percentile score
4	Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is below average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.
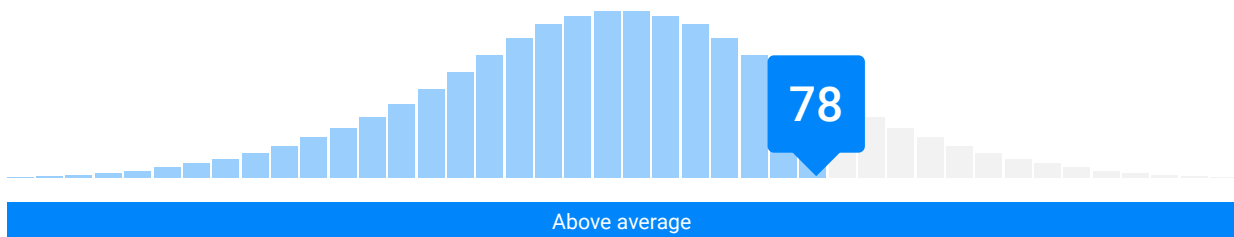
Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 20
Administrative, operational, apprentice and non-graduate staff: 24

Results: Shape Spinner

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.

78

Above average

78	Percentile score
7	Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is above average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.
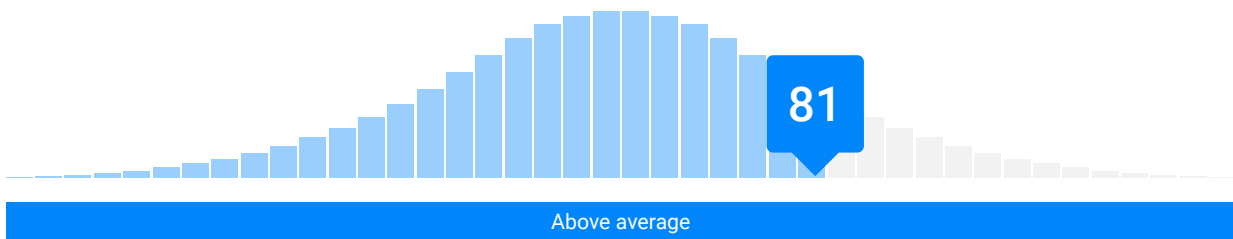
Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 79
Administrative, operational, apprentice and non-graduate staff: 82

Results: Pipe Puzzle

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.

Above average

81	Percentile score
7	Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is above average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.
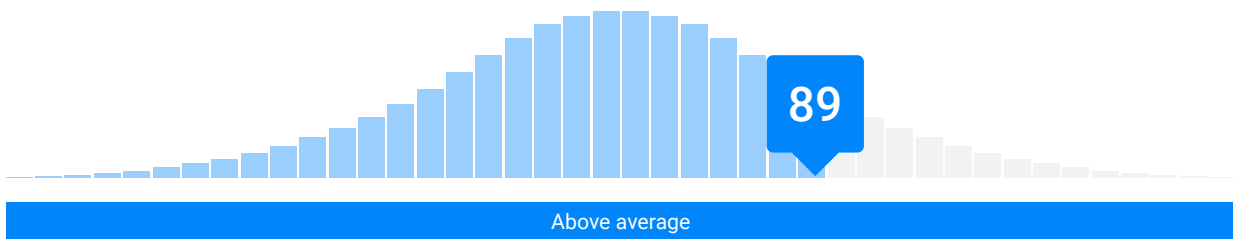
Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 80
Administrative, operational, apprentice and non-graduate staff: 84

Results: Word Logic

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.

89

Above average

89	Percentile score
8	Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is above average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.

Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 90
Administrative, operational, apprentice and non-graduate staff: 93

Results: Link Swipe

This page shows how Simone performed relative to other people. The norm group used was 'graduates, professionals, managers, and executives'. This norm group contains the scores from a large sample size of 3,146 people.
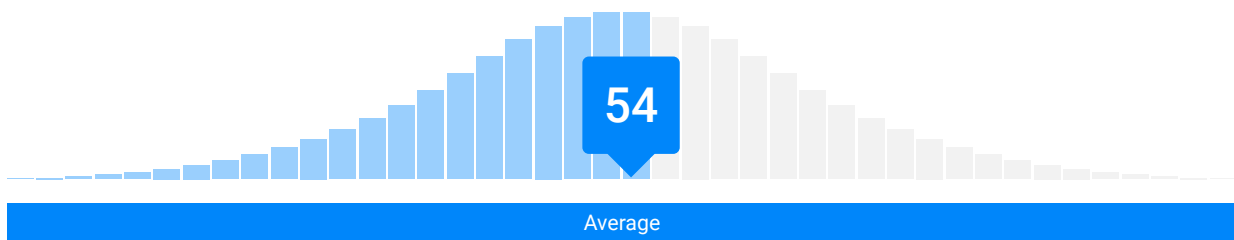
54   Percentile score

6   Sten score

Compared to the norm group, Simone's performance on this assessment indicates an ability which is average.

Percentile score is the percent of people's scores which Simone's score exceeds. For example: the 20th percentile represents a score which is above 20% of the scores achieved by other people.

Sten sore is another way of representing a score relative to other people's scores and ranges from 1 to 10.

Norm Group. The norm group used to generate this report was 'graduates, professionals, managers and executives' which contains the scores of 3,416 graduates, professionals, managers, and executives. If an alternative norm group were used, the revised percentile scores would be as follows:

Apprentices: 55
Administrative, operational, apprentice and non-graduate staff: 58