

1 January 2019

# Word Swipe Results



**Simone  
Sample**

## Report Information

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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

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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

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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.

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## 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 experience.

# 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 irrelevant variance, leaving 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*, a wide range of cognitively-complex tasks should be chosen, rather than a small number of simple tasks.

Traditional aptitude tests are partial measures of *g*, (for example they might measure only verbal reasoning ability). Since candidates typically complete only one or two traditional aptitude tests, the measure of *g* 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 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. They therefore measure *g* more effectively 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 cognitively-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 its utility in an employee selection and assessment setting.

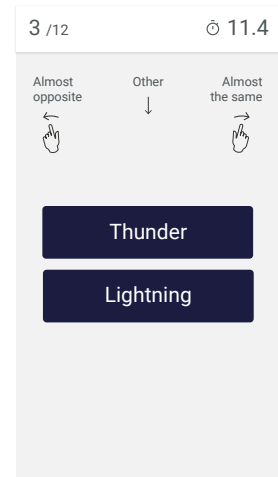
[4] Gottfredson, L. S. (1997). Why *g* matters: The complexity of everyday life. *Intelligence*, 24(1), 79-132.

[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.

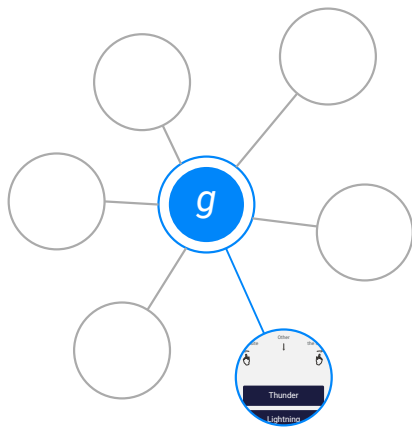
# Assessment: Link Swipe

In this assessment candidates are presented with a pair of words and must swipe to indicate whether the pair of words are approximate synonyms, antonyms, or neither.

**GMA g-facets measured:** lexical knowledge, processing verbal information, grammatical sensitivity.



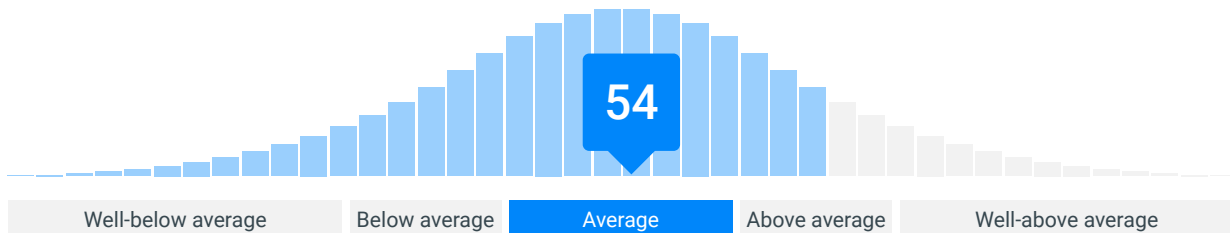
Compared to the chosen reference group, Simone's performance on this assessment indicates a moderate level of verbal reasoning ability. Simone is likely to be fairly comfortable following instructions, understanding documents and interpreting reports. When making decisions based on written or spoken information, Simone is likely to be able to evaluate the information presented and come to both sound and valid conclusions.



Research shows that general cognitive ability ('g') is an excellent predictor of job performance. This gamified assessment measures a specific sub-facet of g. The best measure of g is obtained by combining this assessment with other assessments of cognitive ability, which is why we recommend placing more weight on Simone's overall combined score across all MindmetriQ assessments than this individual Link Swipe assessment.

## 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.



<b>54</b>	Percentile score	Compared to the norm group, Simone's performance on this assessment indicates an ability which is average.
<b>6</b>	Sten score	

**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 score** 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:

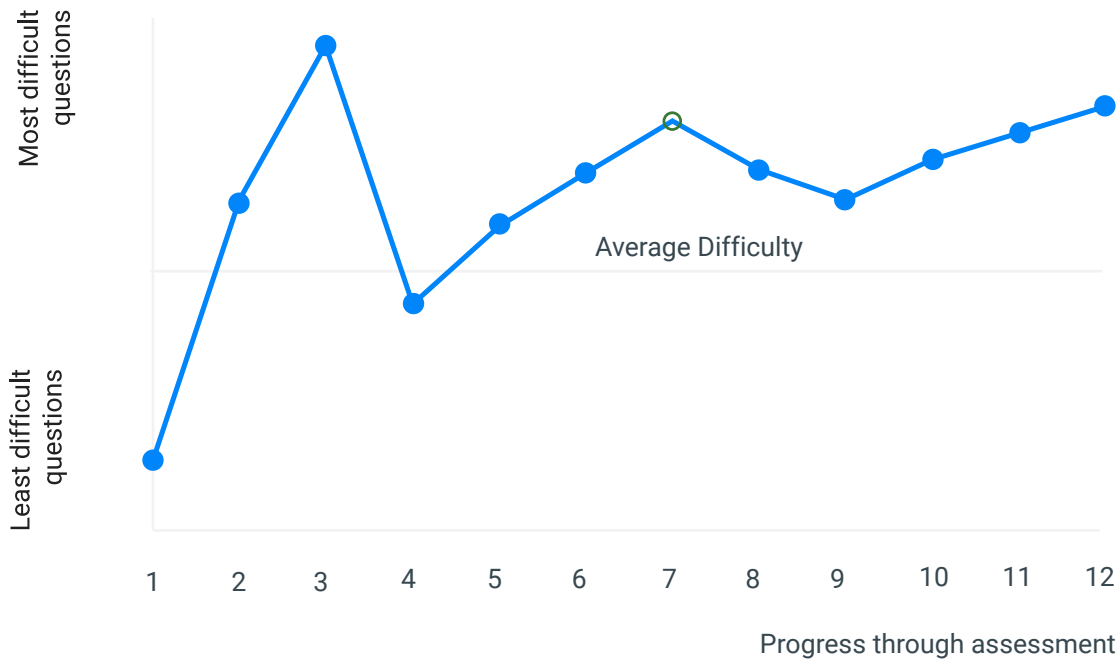
Apprentices: 56

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



# Difficulty over time: Link Swipe

This assessment is adaptive, which means the difficulty of the questions asked automatically adapts to the candidate's performance. Candidates are given questions which are not too easy nor too hard. Hard questions are worth more marks than easy questions.



- Difficulty rating of question answered by the candidate.
- On this question, the candidate appeared to take less than 5% of the allotted time to complete the question. This usually happens because the candidate submitted their response without even looking at the question, but it's possible that the candidate was extremely quick.