CANDIDATE DETAILS

CANDIDATE
Philippa Marchant

REPORT DATE
03 Feb 2021

'g' Factor - 252

RANKED RESULTS

- Working Memory
- Logical Reasoning
- Mental Flexibility

THE SCIENCE OF COGNITION

Mental tests are designed to measure specific domains of cognition that have obvious parallels to business and management. This includes working memory, mental flexibility and logical reasoning. Our scientific team, who are experts in intelligence testing has developed a battery of gamified cognitive assessments using unfamiliar tasks in order to separate potential from experience. But it has long been known that tests of mental ability also rank individuals in about the same way where performance depends on thought rather than knowledge, experience or background. This overlap suggests that all such tests measure a global element or factor of intellectual ability, as well as specific cognitive skills.

The statistical extraction of this general factor, abbreviated as *'g'* is performed by a technique called factor analysis. This ability to isolate *g* has revolutionised research on general intelligence, enabling investigators to evidence that the predictive value of mental tests derives almost entirely from *g* rather than from specific abilities. *g* is now accepted as the single most powerful predictor of performance in training and on-the-job, especially in higher level or complex work. Using factor analysis our team of scientists have validated that each of our cognitive games measure the specific cognitive abilities they were designed to test, as well as validating that our games produce a sound measurement of *g*.

ANAGRAMS

Anagrams have been studied extensively, and measure cognitive flexibility - the ability to 'change set' and try multiple approaches to **solving a problem** (even though the letters 'nig' appear, the word might not end 'ing'). Anagram tasks correlate well with other measures of **cognitive flexibility**, **visualisation** (or **'spatial ability'**), and **general intelligence**. The game also measures **cognitive speed**.

SHAPE SHIFTERS

This game measures **logical reasoning** and is one of the best-available measures of general intelligence. Formally known as **'inductive reasoning'**, the questions measure how well a person can identify which characteristics different sets of shapes have in common, and then using **'deductive reasoning'** decide which of several alternatives is correct. The game also measures **cognitive speed**.

NUMBER SQUARES

This game measures a number of important abilities not tapped by the other games. These include **skill at using numbers**, **planning** (to work out how each problem needs to be approached), **memory** (as the later problems involve several intermediate steps, the results from which must be memorised). The game also measures **cognitive speed** as the questions have time limits.

WHAT COGNITION TELLS US ABOUT PHILIPPA

The specific cognitive abilities Philippa demonstrated most aptitude for are set out below. We refer to these as his/her Signature Skills.

SIGNATURE SKILLS

- Multi-tasking
- Planning and identifying the most promising strategies
- Mental arithmetic
- Focused attention
- Visualising what information is needed to solve the problem
- Working under time pressure

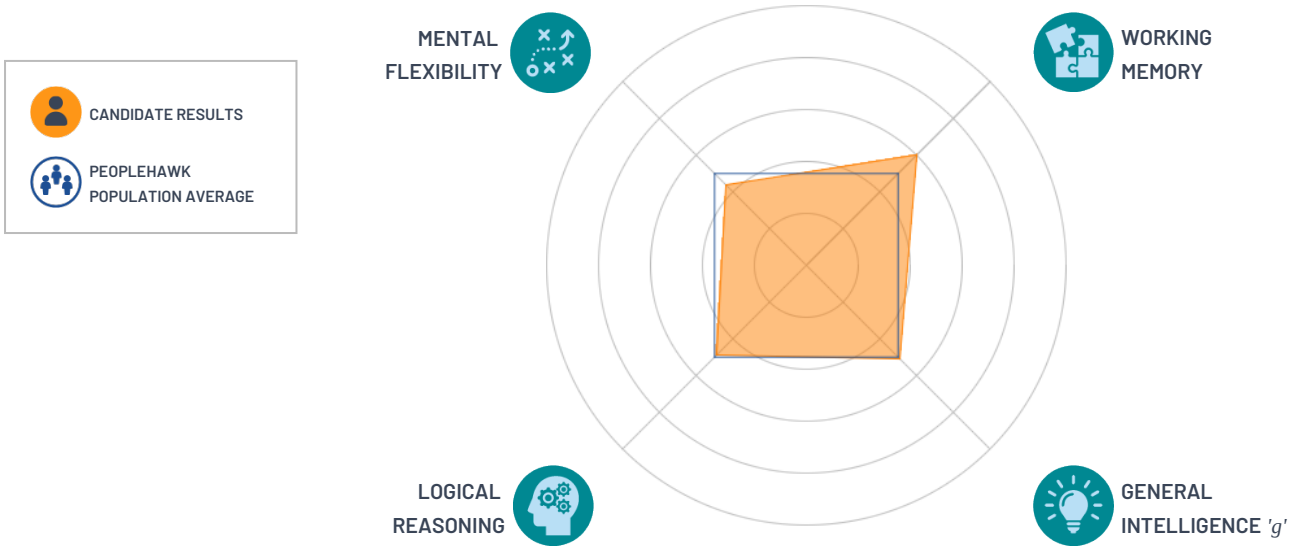
DETAILED ANALYSIS

CANDIDATE RESULTS

PEOPLEHAWK POPULATION AVERAGE

Philippa's cognitive abilities are presented below by comparing his/her scores on each ability with the average scores of the PeopleHawk population.

RESULTS FOR PHILIPPA

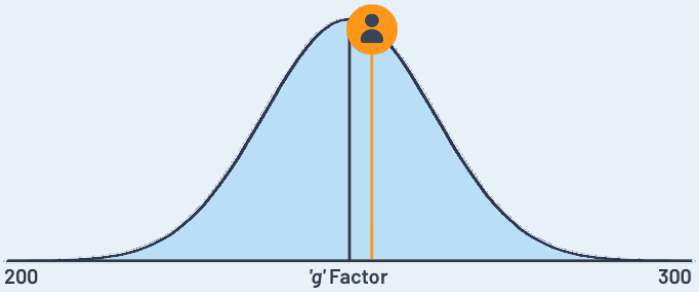


GENERAL INTELLIGENCE

GENERAL INTELLIGENCE

If we take the position that intelligence reveals itself as the ability to deal with the complex situations that arise in everyday life, then it becomes apparent why it has such functional and/or practical importance. It is scientifically acknowledged that *g* is a highly general information-processing capacity that facilitates problem solving, reasoning, decision making and other higher order thinking skills. It is not surprising then that *g* is a sound predictor of differences in academic achievement. Additionally, recent efforts to model job performance to further clarify the role of *g* has revealed that the core distinction between jobs is the mental complexity of the tasks workers perform.

Path models of training and job proficiency indicate that *g* not only influences academic achievement, but strongly predicts success in both training and acquiring job knowledge, which in turn strongly predicts task proficiency and overall job performance. The scores Philippa obtained on our Cognition games, which have been scientifically validated to provide a sound measurement of *g* are presented here. For ease of reference, Philippa's results are benchmarked against the average score of our highly-capable pool of candidates, which is likely to exceed those of the general population as a whole.



Philippa scored above average on these unfamiliar tasks which require abstract thought to solve novel problems and to process complex information. He/she performed the tasks well and was able to work out how to approach the problems better than most. In other words, he/she is well able to mentally manipulate information to fill a gap, turn something over in his/her mind, make comparisons and translate the acquired information to arrive at a logical decision. Philippa tends to think logically and clearly, and is able to learn routine reasonably quickly. He/she responds well to training, with a combination of written materials and on-the-job experience.

WORD OF CAUTION

Information contained in this report is private and confidential and is provided on the basis that recipients will use it responsibly. This report is based on the results of a set of assessments that provide insight on particular cognitive abilities. However other qualities relevant to suitability for a role may be best understood using additional selection methods, such as his/her PeopleHawk profile which includes a Personality Guide and Digital Interview.

RANKED RESULTS

WORKING MEMORY

The ability to plan how to solve a complex problem, identifying the most promising strategies, visualising solutions, multi-tasking, mental arithmetic, focused attention and working under time pressure.

INFREQUENTLY FREQUENTLY

How often candidate relies on ability compared to PeopleHawk population

Philippa performed well on this difficult task. The assessment principally measures working memory, but also measures a range of other cognitive skills such as planning, identifying strategies, mental arithmetic, visualising information, focused attention and working under time pressure. He/she obtained a score which was within the average range for our highly-able pool of candidates and is likely to exceed the average for the general population as a whole. This means that he/she is likely to frequently rely on this skill in the workplace. Working memory has been linked to the ability to focus one's attention and is likely to be a core feature of many tasks at work. Further, quickly identifying how a problem should be solved has obvious parallels in business, enabling candidates like Philippa to identify which routes are most likely to lead to a solution, and which will be dead ends.

LOGICAL REASONING

The ability to apply logic, develop and test problem solving hypotheses, identify patterns in sets of data, logical rule inference, abstract thinking and working under time-pressure.

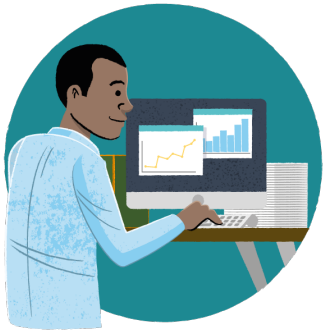
INFREQUENTLY FREQUENTLY

How often candidate relies on ability compared to PeopleHawk population

This assessment principally measures logical reasoning. The assessment also measures a range of other cognitive skills such as identifying a pattern in a set of data, following a rule to combine two pieces of information, abstract thinking (as many of the shapes are unfamiliar), applying logic to an unfamiliar type of problem, developing and testing hypotheses, quickly developing new hypotheses when necessary – "changing set", and working under time-pressure. Philippa performed well on this difficult task and obtained a score which was within the average range for our highly-able pool of candidates, and so is likely to exceed the average for the population as a whole. This means that he/she is likely to frequently rely on this skill in the workplace. Logical reasoning helps in establishing strategic objectives, developing project plans, monitoring progress, taking corrective action and programming for successful results.

MENTAL FLEXIBILITY

The ability to recognise when a strategy is not working, and develop a new one, "intuitive" problem solving, vocabulary and word structure, and working under time pressure.



INFREQUENTLY FREQUENTLY

How often candidate relies on ability compared to PeopleHawk population

Philippa performed well on this task and obtained a score which was within the average range for our highly-able pool of candidates. The assessment principally measures mental flexibility, but also measures a range of other cognitive skills such as familiarity with word structure (common sequences of letters), the ability to recognise when a strategy is not working, and develop a new one, vocabulary (unscrambling letter sequences and word association), working under time pressure and "intuitive" problem solving - where the correct answer emerges as a Eureka moment, rather than through pure logic. His/her score is likely to exceed the average for the population as a whole which means that he/she is likely to frequently rely on this skill in the workplace. The ability to recognise when a strategy is not working and switch to something different is likely to be very useful in management.