

Administrator's Report

# The Memory and Attention Test

Simon Sample

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# introduction

This report presents Simon Sample's results on the Memory and Attention Test (MAT). The MAT assesses a person's ability to memorise a set of rules and then apply these rules as accurately as they can, while maintaining their speed of work at the same time.

At the start of the test, the rules used are fairly simple and straight-forward (e.g. "Click on all blue triangles"). But as the test progresses, the rules become more complex, making them increasingly difficult to remember.

The skills assessed by the Memory and Attention test are important in areas of work where a good memory, attention to detail and accuracy are needed: for instance, accounting, finance, scientific investigation, computer programming, air traffic control, archiving, surveying and quality control, to mention just a few examples.

There are other areas where, although less central, these skills are nevertheless important for at least some of the time. Examples of such jobs include healthcare, the emergency services, the armed forces, production monitoring, pharmaceutical dispensing, administrative work and so on.

Remember that Simon's results on this test will have been influenced by both his natural skills and also the strategy he used when taking the test: (i.e. whether he chose to concentrate mostly on speed of working or on making sure his responses to the test were accurate).

Remember also that skills assessed by the Memory and Attention test may form only part of what might be required for any given job and other skills not assessed by this test may also be important.

# how the memory and attention test is scored



Simon's responses to the MAT were analysed in the following way.

Firstly, for each screen of the test, his responses were marked as either correct or incorrect. For an item to be marked as correct, all the shapes and letters required by the rules for that item must have been clicked and no additional shapes or letters should have been clicked. The number of screens Simon responded to correctly was used to calculate his 'accuracy' score.

Secondly, the amount of time he spent on each screen was also recorded, as was any time spent reading the Help screen to remind himself of the rules for that screen. The test program also recorded the number of times he changed his mind as to whether one of the shapes should be clicked or not.

The data was then analysed to produce the following five scores:

<b>Accuracy</b>	The number of screens he answered correctly
<b>Speed of working</b>	How quickly he worked (based on the total amount of time he spent working on the entire set of screens)
<b>Memory</b>	The number of times he clicked on the Help button to remind himself of the rules for any of the screens. A high score indicates few clicks on the Help button.
<b>Changes</b>	The number of times he changed his mind as to whether or not a shape should be clicked. A high score indicates few changes made.
<b>Click speed</b>	How long it took him to complete the first set of very easy screens (used basically as a measure of capability in using a computer mouse). A high score indicates fast use of the mouse.

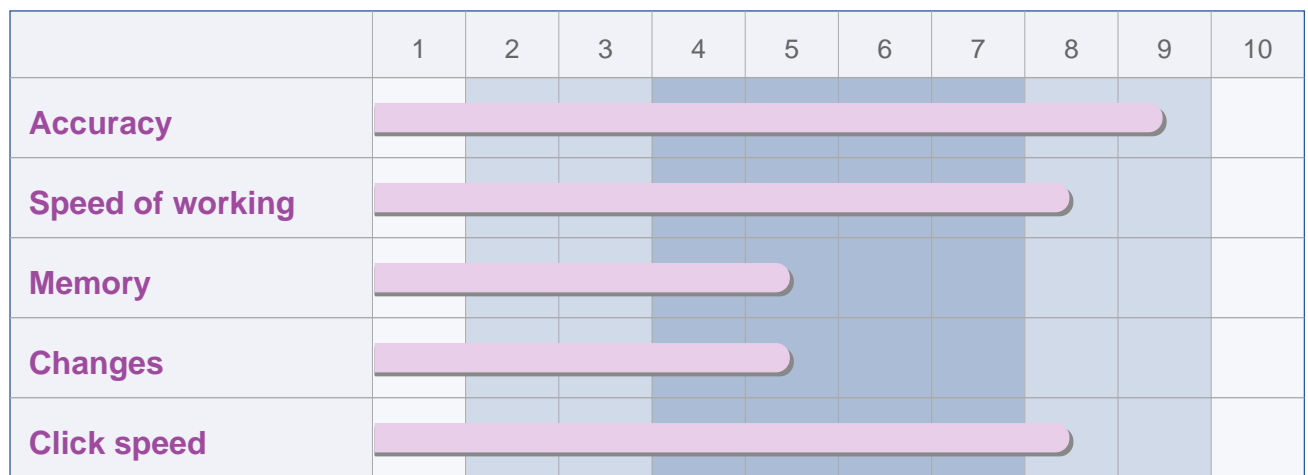
In the graph on the following page, the scores are presented on the standard 1 - 10 sten scale. The group of people with which Simon's scores were compared was 'Job Applicant Group (n=675)'.

Remember that in general, it is easier to interpret high scores than low scores. If all 5 scores are high, then the person has shown that they are good at this kind of mental processing. However, as the Accuracy score gets lower, the reasons for this become increasingly complex and more attention needs to be given to the remaining four scores in order to understand the set of scores as a whole.

# summary of results



Simon's scores on the MAT are shown in the following graph.



These scores are described in more detail in the tables below. Note that for Memory, Speed and Click Speed, lower raw scores indicate better performance. The percentiles and T-scores for these scales have therefore been reversed so that on each of the five scales, higher standard scores indicate better performance.

## Accuracy

Number of correct screens	Percentile	T-score	Sten	68% T-score confidence band	80% T-score confidence band
40	95	66.5	9	63 - 69	62 - 70

## Speed of working

Total test time in seconds	Percentile	T-score	Sten	68% T-score confidence band	80% T-score confidence band
446	93	65	8	62 - 67	61 - 68

## Memory

Use of instructions screen	Percentile	T-score	Sten	68% T-score confidence band	80% T-score confidence band
16	49	50	5	61 - 67	60 - 68

## Changes

no. of changes	Percentile	T-score	Sten
7	35	46.5	5

## Click speed

Speed of responding in seconds	Percentile	T-score	Sten	68% T-score confidence band	80% T-score confidence band
16	92	64.5	8	43 - 49	42 - 50

## Summary

The main characteristics of Simon's performance on the MAT are as follows:

- Highly accurate and very efficient responding
- Used the facility to check the rules but not to an undue extent
- Evidence of checking his work from the number of changes made which probably helped to achieve high accuracy

Date of test: 3/9/2014