PSYTECH INTERNATIONAL

Samantha Sample
27 Mar 2013

EXPERT

STANDARD REPORT

GRADUATE REASONING TEST

ABILITY
GRT1

REPORT STRUCTURE

The Standard Report presents Samantha Sample's results in the following sections:

DISCLAIMER

This is a strictly confidential assessment report on Samantha Sample which is to be used under the guidance of a trained professional. The information contained in this report should only be disclosed on a 'need to know basis' with the prior understanding of Samantha Sample.

The results must be interpreted in the light of corroborating evidence gained from feedback and in the context of the role in question taking into account available data such as performance appraisals, actual experience, personality preferences, motivation, interests, values and skills. As such the authors and distributors cannot accept responsibility for decisions made based on the information contained in this report and cannot be held directly or indirectly liable for the consequences of those decisions.

GUIDE TO USING THIS REPORT

INTRODUCTION

The Graduate Reasoning Test (GRT1) assesses the ability to reason using words, numbers and abstract concepts. It has been specifically designed to discriminate between candidates of above average ability, whose aptitude is being assessed for graduate level employment or higher level training. Reasoning Tests in the format of the Graduate Reasoning Test have consistently been found to be the best single predictor of job performance and trainability in roles that require a high level of general mental ability. Combining reasoning test scores with the results from personality tests can further improve the prediction of job performance, as can the use of job sample tests and structured interviews. In roles where experience and acquired knowledge are central to effective performance, it may be particularly appropriate to combine information obtained from reasoning tests with that obtained from these latter sources.

The Graduate Reasoning Test assess the candidate's capacity (a composite of speed and accuracy) to perceive logical patterns and relationships in new material she has not previously encountered, and deduce the logical consequences of these (i.e. logical deductive reasoning). This incorporates the ability to: learn and understand complex new material; use logic to develop arguments that are rational and well-reasoned; deduce the logical consequences of a given set of rules, assumptions or relationships.

The Graduate Reasoning Test assesses serial deductive reasoning, rather than holistic deductive reasoning; namely the ability to understand the logical relationships that govern patterns that change along one dimension, rather than the ability to understand logical patterns that develop simultaneously over a number of independent dimensions. As such, the abilities the Graduate Reasoning Test assesses (verbal, numerical and abstract serial deductive reasoning) are most directly relevant to roles that require the candidate to make a series of rational decisions that follow sequentially, one after another. While being relevant to all jobs that require a high level of mental acuity, the abilities the Graduate Reasoning Test assesses are slightly less directly relevant to roles that might require the candidate to accurately perceive and understand logical patterns holistically (i.e. to understand patterns that change simultaneously over a number of different dimensions), and to think strategically, with these latter skills being more directly assessed by matrix reasoning tests such as the ART.

The additional diagnostic (raw) scores, which are provided after the profile chart for each of the Verbal, Numerical and Abstract Tests, enable assessors to establish the respondent's test taking style. These provide additional information which allows assessors to determine the trade-off the candidate has made between speed (Percentage Items Attempted) and accuracy when responding to the Graduate Reasoning Test items. Assessors should be mindful of the need to interpret these raw scores in the context of the candidate's scaled (stanine or percentile) score on each subtest, as **both** accuracy and speed will increase for higher scorers.

THE STANDARD REPORT

The Standard Report provides a detailed breakdown of the respondent's performance across the sub-scales using narratives and profile charts.

SUPPLEMENTARY REPORTS

The information gained from this report can be used in conjunction with other supplementary reports. The supplementary reports available for the Graduate Reasoning Test are:

Group Report

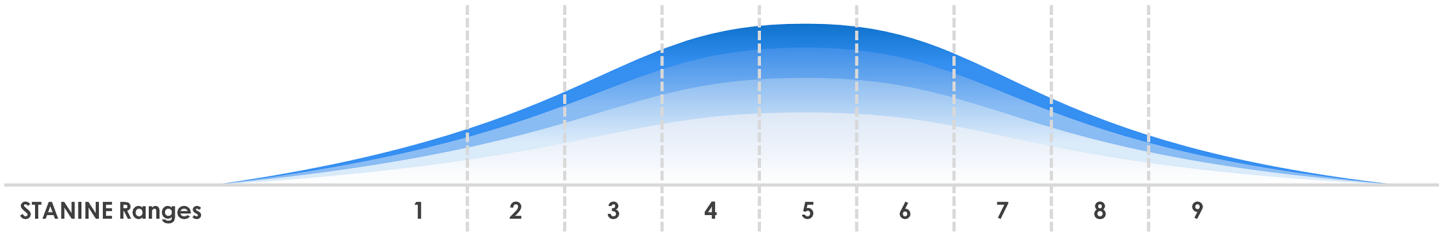
The Group Report provides a summary of the respondents' results across the sub-scales in the form of a spread sheet.

Respondent Feedback Report

The Feedback Report is intended for sharing directly with respondents for their personal insight. It provides a breakdown of the respondent's performance across the sub-scales using simplified narratives.

REFERENCE GROUP (NORMS) USED

A reference group is used to evaluate Samantha's results. Her results are presented as standardised STANINE scores with Mean=5 and SD=2 as demonstrated in the following chart.



The following norms were used to generate this report:

Test	Norm Used	Sample Size
Verbal Graduate Reasoning (VR1)	Undergraduates	354
Numerical Graduate Reasoning (NR1)	Undergraduates	354
Abstract Graduate Reasoning (AR1)	Undergraduates	354

UNDERSTANDING THE CHARTS AND TABLES

Much of the information presented in this report is presented in the form of charts or tables, which is why it is important to be able to read them accurately and make use of the information contained within them. The following elements are used to present the data in the charts and tables:

Element	Description
Raw	The Raw score is simply the (unscaled) sum of correct responses the respondent recieves on the test scale.
Attempted (Att.)	Is the number of questions the respondent has attempted to answer regardless of whether the answers were correct or not.
STANINE Score	Is a standardised scale used to compare respondent results. The STANINE Score has a Mean of 5 and Standard Deviation of 2. This score is presented as a 9-point scale in the results chart.
Standard Error of Measurement (SE*m*)	The Standard Error of Measurement is a measure of the range within which an individual's hypothetical 'true' score is likely ot fall within 68% probability. It is presented as blue error bar surrounding the respondent's obtained STANINE score in the results chart.
T Score	Is another standardised score used to compare respondent results. It is similar to the STANINE score, though has a Mean of 50 and Standard Deviation of 10. This score is presented as a numerical value in the results chart.
Percentile Score (%ile)	A value which reflects the percentage of people in a sample who score below a given raw score. This score is presented as a numerical value between 0 and 100 in the results chart.
Percentage Items Correct	Is the percentage of the number of correct responses over total number of items.
Percentage Items Attempted	Is the percentage of the number of items attempted over total number of items.
Percentage Accuracy	Is the percentage of the number of items attempted over the number of correct responses.

VERBAL GRADUATE REASONING

Scale Description

The Verbal Graduate Reasoning Test assesses a person's ability to use words in a logical way. Consisting of items which involve an understanding of vocabulary, class membership and the relationships between words, this test measures the ability to perceive and understand concepts and ideas expressed verbally. While this test is a measure of reasoning ability rather than educational achievement, it is nonetheless generally recognised that verbal reasoning test scores are sensitive to educational factors.

Result Description

Compared to the chosen reference group, Samantha Sample's performance on the Verbal Reasoning Test indicates that she has a 'well above average' level of ability to understand complex verbal concepts and ideas, to perceive the relationships between these and deduce their logical consequences. Such a score suggests that her verbal reasoning ability is likely to exceed that of many graduate calibre staff. She has demonstrated a good ability to use words in a logical and rational way, and to able to perceive the logical relationships that link different verbal concepts.

Samantha Sample's performance on the Verbal Reasoning Test indicates that she has a good command of language and an ability to formulate logical, reasoned arguments. Having a 'well above average' level of verbal reasoning ability, she should be able to understand the logic of fairly subtle arguments and use words in quite a rational and well-reasoned way. Consequently, she would be expected to be able to understand complicated instructions and explanations with relative ease and be able to explain quite difficult concepts and ideas to others with clarity. She is likely to be able to learn complex verbal material more quickly than many graduate level staff and to grasp new ideas relatively quickly. As a result, she should be able to benefit from training and development programmes that require quite a high level of verbal ability, and which require participants to learn fairly complex verbal material.

RESULTS CHART

Scale	Description	Raw	Att.	1 2 3 4 5 6 7 8 9	T Score	%ile
VR1	Verbal Graduate Reasoning	23	30	7	60	83

Norm Used:
Verbal Graduate Reasoning = 354 Undergraduates

Scale	Description	Percentage Items Correct	Percentage Items Attempted	Percentage Accuracy
VR1	Verbal Graduate Reasoning	66	86	77

NUMERICAL GRADUATE REASONING

Scale Description

The Numerical Graduate Reasoning Test assesses a person's ability to use numbers in a logical and rational way. The test consists of items which assess the candidate's understanding of number series, numerical transformations, the relationships between numbers and their ability to perform numerical computations.

Result Description

Samantha Sample's performance on the Numerical Reasoning Test indicates that she has a 'below average' level of numerical reasoning ability when compared to the chosen reference group. This suggests that she is likely to experience somewhat more difficulty than many graduate calibre staff in perceiving the logical patterns and relationships between numbers, in understanding the rules that govern these patterns and in deducing the consequences of them. In a broader context, this suggests that she is likely to experience some difficulty understanding particularly difficult numerical/mathematical concepts and is unlikely to be quite as proficient working with numbers as many graduate calibre staff.

While Samantha Sample has demonstrated an ability to carry out numerical operations with a reasonable degree of accuracy, she would nonetheless be expected to experience some difficulty fully appreciating the logic underpinning the more complex numerical problems. While she should be able to cope reasonably well with the routine numerical work that is typically undertaken by graduate level staff, it is likely to take her somewhat longer to acquire numerical skills than it would take the typical person of graduate level ability. Although she should be able to benefit from further training in this area, in order for her to gain most benefit from such training it will need to be relatively well structured and focused on teaching specific skills and ideas rather than on fundamental mathematical/numerical principles; which she may have difficulty fully grasping.

RESULTS CHART

Scale	Description	Raw	Att.	1 2 3 4 5 6 7 8 9	T Score	%ile
NR1	Numerical Graduate Reasoning	10	15	3	40	15

Norm Used:
Numerical Graduate Reasoning = 354 Undergraduates

Scale	Description	Percentage Items Correct	Percentage Items Attempted	Percentage Accuracy
NR1	Numerical Graduate Reasoning	40	60	67

ABSTRACT GRADUATE REASONING

Scale Description

The Abstract Graduate Reasoning Test assesses the ability to understand complex concepts and assimilate new information outside of previous experience. The test consists of items which require the recognition of patterns and similarities between shapes and figures. As a measure of reasoning it is independent of educational attainment and can be used to provide an indication of intellectual potential. Assessing the ability to quickly understand and assimilate new information it is likely to predict how responsive to training the person will be.

Result Description

Samantha Sample's score on the Abstract Reasoning Test indicates that, with respect to the chosen reference group, she has a 'well below average' level of fluid or 'natural' (i.e., untutored) reasoning ability. This suggests that she is likely to experience more difficulty than most graduate calibre staff in correctly identifying logical patterns and relationships between novel material she has not previously encountered. She is similarly likely to experience rather more difficulty than most graduate calibre staff in being able to use pure logic (i.e., without calling upon other knowledge/information such as her vocabulary, knowledge of mathematical operations, etc.) to deduce the consequences of such patterns. As a consequence, she would be expected to have some difficulty fully appreciating new, abstract concepts which are outside of her previous experience.

While Samantha Sample should generally be able to cope with the level of training that is routinely undertaken by graduate calibre staff, it is likely to take her longer than it would take most graduate level staff to fully understand complicated logic and very abstract concepts. As a result, she is likely to require a rather more structured approach to learning than the typical person of graduate level ability in order to ensure that she fully understands the material she is being taught. Even then however, she might be expected not to always fully appreciate the more subtle abstract logic underpinning the skills she has acquired.

RESULTS CHART

Scale	Description	Raw	Att.	1 2 3 4 5 6 7 8 9	T Score	%ile
AR1	Abstract Graduate Reasoning	8	20	2	34	5

Norm Used:
Abstract Graduate Reasoning = 354 Undergraduates

Scale	Description	Percentage Items Correct	Percentage Items Attempted	Percentage Accuracy
AR1	Abstract Graduate Reasoning	32	80	40

RESULTS SUMMARY

GRADUATE REASONING PROFILE

Scale	Description	Raw	Att.	1 2 3 4 5 6 7 8 9	T Score	%ile
VR1	Verbal Graduate Reasoning	23	30	7	60	83
NR1	Numerical Graduate Reasoning	10	15	3	40	15
AR1	Abstract Graduate Reasoning	8	20	2	34	5

GENERAL MENTAL ABILITY PROFILE

Scale	Raw	1 2 3 4 5 6 7 8 9
General Mental Ability	3.7	3.7
Crystallised Intelligence	5.4	5.4
Fluid Intelligence	2.3	2.3

General Mental Ability – often termed 'g' – is defined as a person's capacity to: understand logic; comprehend and learn complex new material; think abstractly; solve problems; plan and respond to the environment in an adaptive, rational and flexible manner. It is termed General Mental Ability because it assesses the person's mental capacity across a wide range of different intellectual functions and modalities (i.e. it is not specific to that person's verbal, abstract or numerical reasoning ability, etc.). It is a composite of the speed and accuracy with which the person performs mental tasks, and can therefore be viewed as a measure of a person's 'mental power'.

Crystallised Intelligence – often termed 'Gc' – is defined as a person's capacity to accumulate knowledge and intellectual skills, and learn from experience. It involves acquiring new ideas, information and mental skills, and using these to understand the environment and respond to it in a logical and rational way. It is a function of the speed and accuracy with which the person can perform such mental tasks and use acquired knowledge and competencies in an adaptive manner.

Fluid Intelligence – often termed 'Gf' – is defined as a person's capacity to create meaning out of confusion. It involves the ability to: solve novel problems in a rational way, perceive patterns and relationships in new material and deduce the logical consequences of such patterns. It is a function of the speed and accuracy with which the person performs such mental tasks, with this ability being used whenever a person is required to respond to a novel intellectual task or problem.