Employment questionnaire

Product Guide

CONTENTS

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Revised 17th March 2014

1.   Introduction

The Employment questionnaire is designed to help with the selection of staff for front line roles which have little job discretion. It will select staff who will be loyal, work productively and effectively in teams and who will display integrity in their approach to their work, both on their own and with colleagues. Spin-off benefits will therefore include a reduced level of shrinkage etc.

It offers a range of questions for interviewees that analyse issues such as education, commitment, financial status, likely tenure, ambition, personal responsibility, social adjustment and attitudes to authority and theft. You decide what you want to know and the questionnaire provides the answers quickly and efficiently.

The Employment questionnaire requires around 20 minutes to complete and the applicant is compared with a database of over 3000 candidates for employment with subsequently known work records. The database contains candidates for employment in a range of hourly paid and low discretion activities. It is therefore appropriate for use with a wide range of job applicants.

A further section analyses where questions may be responded to in an inaccurate way, that is perhaps the candidate is trying to fake their responses and there is also a section which suggests questions to be raised at the interview.

The detailed approach of this package means it is also well suited for recruitment agencies.

For companies with a central organisation with a number of distributed branches/units spread geographically the product can be used to provide improved recruitment and selection on a local branch basis which will be undertaken by the local branch manager without removing control from the central human resource function or line manager. As a consequence, the manager still remains in charge but the central personnel functions ensure that a more effective employee is selected.

2.   Product Description

The Employment questionnaire provides candidates scores on 10 scales plus a queries scale. The scales are part bio-data and part personality measures. These scales are:

a)   Educational Attainments - an indication of each candidate's broad intellectual standing based on scholastic and college/university attainment.

b)   Job Tenure - to give an initial prediction of the likelihood that the candidate will stay in the post if appointed.

c)   Economic Status - which is a very broad indicator of the respondents level of current income and home ownership status. It provides an indication of whether the candidate's income expectation is realistic and whether they may financially over extend, therefore creating a risk.

d)   Security Risk - to show the likely degree of initial security risk associated with employing the candidate.

e)   Drive and Ambition - a measure of the extent to which the candidate is 'lean and hungry'.

f)   Personal Responsibility - does the candidate take responsibility seriously; will they finish what they begin?

g)   Social Adjustment - can the candidate work effectively as a member of a team?

h)   Attitude to Authority - will the candidate do what they are told?

i)   Attitude to Theft - will the candidate condone theft, or even commit theft at work?

j)   Faking Good - has the candidate responded honestly and consistently to the questions?

k)   Queries - this is a series of queries about specific candidates responses which may be used at the interview for additional questioning.

The results are provided on a 10 point scale and guidance is provided in sections 7 and 8 about how to interpret the various possible scores. Figures are based on an initial UK sample of 3000 people in appropriate employment, plus subsequent supplements.

Use of the questionnaire requires qualification at B.P.S Level A or attendance on a one day training course.

3.   Development

The product development began in 1988 with a major corporate client who employs 20,000 full-time and part-time employees. The presenting issues which triggered the development of the product were an alarmingly high cost of recruitment, a need to attract the most employable candidates even though the employment process took an average of 6 weeks from introduction to offer, which resulted in an urgent need to be able to offer people some employment whilst their application was being processed. In addition, there was a need to attract candidates for whom tenure was likely so that the cost of recruitment could be reduced over time. These needs were identified as a result of an attitude survey.

At that time 45,000 candidates per year were being interviewed in order for 10% of that number to be hired. Ninety percent of the number of people who were hired would leave each year, although those hired and those who resigned were not the same people. In some branches of this organisation in inner city areas it had not been possible to fully staff the operation for some time due to the difficulties and slowness associated with recruiting the most attractive staff.

The result of various sampling in the organisation was the identification of 10 assessment dimensions which could be used as the basis for a revised recruitment procedure. These were developed over a lengthy period of time and sampled extensively with candidates who were seeking employment and those who were not. See the section on Reliability and Validity for a description of this data. The eventual result was the production of a questionnaire which contained 10 dimensions; 4 were bio-data based and 6 were personality measure based. These were developed from new and make up the current Employment questionnaire. It must be emphasised that this product is designed for people of a certain orientation: applying for jobs with low job discretion, may well be hourly paid, relatively little job security, relatively short cycle work activity, report to a supervisor or junior line manager, the organisation probably has a large branch network.

The product was developed for administration exclusively through a personal computer, because this would elicit the most reliable and candid answers and would be far quicker to complete than other forms of questionnaire. In addition, this medium was particularly suitable for people who are not comfortable with writing large amounts in response to questions. It was taken into account that large numbers of members of ethnic minority groups and those with low educational attainment may well have to complete this questionnaire and this medium was thought to be the most reliable.

The data gathering could be highly secure and there was little fear of leakage and dilution of the question items if they were only available through a PC. In addition, this provided considerable confidence about the quality of questionnaire administration, since the questionnaire would always be administered in an identical way via the instructions which appear on the screen at a speed which is determined by the candidate.

These design features also contributed towards an improved selection procedure by eliminating sources of human error and bias at the front end of the activity. In fact, confidence grew to be such that completion of the application form was deferred until after the interview, which occurred following the completion of the assessment procedure. The early questions in this assessment procedure substituted for various aspects of the application form in any case. There were initial concerns that many people who had never encountered a computer before might find the process sufficiently intimidating to wish to end their application at that stage, but this did not prove to be the case.

In 5 years of trials and further development, only 1 person has declined for reasons which can only be attributed to the presence of a computer. This has been monitored carefully as is evidenced by some examples of exit interviews and the computer in fact enhances the experience for the candidate. The 10 measurement dimensions which are the major component of the Employment questionnaire were selected because they appeared to distinguish high performers from marginal performers during the development phases. In other words, effective performers and those who were rated highly by managers (usually the same group), were differentiated from the rest by some if not all of these assessment dimensions. In addition, most of these can not be learned but are something which the individual brings to their work or does not.

4.   When to use this product

This product has been designed for a wide range of uses, but the dominant one is likely to be in the context of employment selection. However, it will also be appropriate for some assessment contexts in the areas of career development, counselling and performance review evaluation. Each of these areas of possible use is described in further detail below.

Employment Selection

This is likely to be the major area of use for this questionnaire because it evaluates aspects of the individual's behaviour which are likely to be of most concern when initial employment is being considered. For example, educational attainments which is the first measurement scale which is recorded following assessment, is only likely to be relevant when the person seeks initial employment.   However, a number of points should be borne in mind when considering using the Employment questionnaire in the selection context.

- The questionnaire is designed to be used with potential employees who have relatively low discretion in their job activity. This means that they will typically not be allowed much decision making authority and their work will be tightly controlled, perhaps involving clocking on and off or other forms of relatively close monitoring of their hours of work. It is likely that they may be hourly paid, although if they are salaried staff they will still have relatively little job discretion and all their work transactions will probably be recorded. This would obviously imply that it could be used with staff who work in bars, hotels, delivery staff of any kind, counter staff, retail shop staff, manufacturing staff and those whose jobs involve a large number of brief encounters, be it with the product or the customer.

- Such staff are likely to have a short cycle associated with their work activity. This means that they would do the same thing many times during the working day and it is important to be able to identify the stability and equanimity with which they communicate this work, if not enthusiasm.

- It is also appropriate for staff for whom there is no attainment data, where it is necessary to know something about their previous history of work, education and other activities. This information can provide an alternative indication of their likely productivity to the more formal record which may be available from other people.

- It is also appropriate for staff with whom it is difficult to establish a track record, perhaps because they have recently changed domicile or recently come to this country to live and work.   The procedure is designed to provide a reliable prediction of work stability, productivity and behaviour if used in conjunction with an interview which follows up areas of questioning arising from the use of this product.

Career Development

The product has not been specifically designed for career development use, although the use of certain selected dimensions, such as personal responsibility, attitude to authority, drive and ambition and social adjustment, may provide a fruitful basis for discussion with the employee. However, because the report is not designed to be provided to the employee for feedback purposes, using the questionnaire in this way will result in the assessment manager having to guide and lead the candidate substantially, since the candidate will not have received any written feedback from completing this questionnaire. Whilst use of the questionnaire may provide valuable indications of likely career direction and possible development needs with respect to the assessment dimensions, these should be treated with caution and should have the full agreement of the candidate before career development activity is pursued.

Counselling Uses

This questionnaire could well be the basis of a counselling and feedback session to someone who is applying for employment, or who has completed it as some kind of developmental activity. In such a situation it is not advisable to provide the report, but to talk through the issues raised as queries in the text of the report and to explore the extent to which the person would concur with the profile which they have produced. This could then result in various prognoses for work activity. For example, if someone shows a very low profile with respect to social adjustment, it is likely that they may be more solitary than a team player. This would have obvious consequences for their future career direction and should be checked out with them before any action is undertaken. However, this is an appropriate use of the material.

Performance Evaluation

It is quite possible that a member of staff might complete this questionnaire as part of a performance review in preparation for the annual review procedure. The profile which is produced could then be the basis of the performance review discussion, depending upon the extent to which the employee agrees with the picture which is produced. However, it has not particularly been designed for this purpose and it would be very important to check that the appropriate norms are being used for the comparison, because the employee could otherwise feel disadvantaged by the reference group with whom they are being compared.

Important - this questionnaire is not designed to decide whether people should or should not be interviewed or considered further for employment. It has been designed to assist the employment process by providing an assessment of the candidate's likely attitude towards employment in the context of an appropriate reference group. The information should be checked with the candidate who is, after all, the best judge of themselves if they are being honest and the candidate's responses should be checked for consistency with the information provided on the questionnaire. It is not a substitute for other forms of reference check or the interview and should not be promoted or treated as such. If used sensitively and appropriately it will provide valuable information which will assist with the reliability of the selection or other employment decisions.

This product has been prepared with every care and in good faith. Its development has been recorded so that an audit trail exists and the validation meets the highest current standards in professional psychology. However, the test publishers have no control over the way in which it is used and from time to time evidence of unscrupulous use or abuse does present itself. Therefore, if you know of any inappropriate use we would appreciate it if you would contact us so that we may provide coaching and support to organisations which may otherwise use the materials inappropriately.

5.   Description of Assessment Dimensions

The Employment questionnaire assesses candidates against 10 assessment dimensions. Each of these is described in further detail below. (See Table in Section 9).

Educational Attainments

This is an indication of each candidate's broad intellectual standing, based on school and college/university attainment. Many candidates will not have academic qualifications in the employment group with whom this is likely to be most appropriate and the report scale will indicate the extent to which the level of attainment compares with the reference group. If someone has an unusual educational record this may be identified and produced in the queries as one of a range of possible things to explore further in the interview. A high score on this scale indicates that the candidate has achieved a degree or post-graduate level of educational attainment. This should not cause rejection of the candidate, perhaps the opposite, although it has been clearly established that in many low discretion job activities the more highly qualified candidates can suffer some disadvantages.

Job Tenure

This provides an initial prediction of the likelihood that the candidate will stay in the post if appointed. This measure of employment stability is based upon the historical research which has identified that people who change domicile very frequently and change jobs frequently develop a pattern which is likely to be continued. This is a key assessment dimension. A high score indicates a low risk and a low score represents evidence of instability (see Section 9).

Economic Status

This is a very broad indicator of the respondent's level of current income and home ownership status. It gives an indication of whether the candidate's income expenditure is realistic and whether they may over extend themselves. Once again, a high score indicates a low risk, where as a low score indicates a relatively high risk. This assessment dimension evaluates whether the candidate's income aspirations may widely exceed the capacity of the organisation to satisfy them and whether their credit commitment may be beyond their capacity to repay. It is a relatively reliable indicator of employment performance if coupled with an effective interview.

Security Risk

This is an initial indication of the security risk which may be associated with employing the individual. If they have confessed to a criminal record and they have motoring offences also recorded against them, this is likely to raise their score to a level which would suggest that they represent a significant risk. If, on the other hand, they indicate a response to a wide range of questions that they have never had serious legal problems of any kind, then they are likely to produce a low score on this dimension. This may be of interest to organisations with a particular concern about security, shrinkage, wastage and other forms of counter-productive behaviour.

Drive and Ambition

This is a measure of the extent to which the candidate is 'lean and hungry'. Candidates who produce a low score on this dimension are likely to lack drive and ambition and to display a wish for a 'quiet life'. Candidates who produce a high score are likely to display a lean and hungry orientation. This is useful when supervisors are being sought and others who will provide a positive example to their colleagues.

Personal Responsibility

This is a measure of the candidate's attitude towards responsibility, whether they take it seriously and whether they will finish what they begin. Once again, a high score equals a low risk in that the person has indicated in response to several questions that they are particularly concerned to finish what the begin and that responsibility is a highly valued commodity to them. Such people are not likely to take a 'devil may care' attitude to their working life and may set an impressive example to their colleagues. Therefore, high scores indicate a low risk because of the person's attitude to responsibility, where as low scores are more questionable.

Social Adjustment

This is a measure of whether the candidate can work effectively as a member of a team. Therefore, a high score indicates a team orientation and a low score is indicative of a private nature. People who score highly are likely to be oriented towards team work and may feel isolated if asked to work alone for long periods. Low scorers, by contrast, will probably prefer work which allows them to be substantially alone. In addition, it is likely that high scorers will value multi-task activities where as low scorers will prefer to work on one thing from concept to completion.

Attitude to Authority

This is a measure of whether the candidate will do what they are told. With jobs involving low discretion levels this is an extremely important dimension and research has clearly indicated that candidates with very positive attitudes to authority are more reliable employees than the rest. Therefore, employees who produce a high score on this dimension are likely to respond effectively whereas those who score low are more likely to go their own way.

Attitude to Theft

This is a measure describing whether the candidate condones theft by colleagues or may even commit opportunist theft themselves at work. Once again, a high score indicates that the risk is lower, whereas a low score suggests that risks are greater. This is a dimension which will be of interest to those where security, productivity and possible shrinkage or wastage are a genuine risk or where they wish to reduce that.

Faking Good

This measures whether the candidate has responded honestly and consistently to the questions and it is, in effect, a lie detector. Someone who produces a high faking good score is likely to have been presenting an artificially positive picture of themselves, where as someone who scores low is likely to be the opposite.

This is an important dimension because it indicates whether someone has presented an artificially positive picture of themselves and is therefore a key measure in this context. For a summary of possible results see section 9.

6.   Assessment with this product

This questionnaire is designed to be administered via the Internet to candidates who will respond through the keyboard to questions which appear on the screen. There are a number of steps which should be carefully followed by test administrators as part of the assessment procedure to ensure valid and fair use of the questionnaire. These will be known to qualified users.

When administering this product it is important to take great care to prepare the assessment environment so that the candidate will feel as relaxed as possible during the assessment process.

Please remember what you felt like the first time you were asked to complete some questionnaires and try to ensure that you treat the candidate exactly as you would have liked to have been treated at that time. This means that you should take care to ensure that the assessment environment is as conducive as possible to a relaxed, yet alert, activity and that there will be no interruptions during the period of the assessment procedure. This enables the candidate to focus on the questions which they are being asked and to answer as candidly as possible.

You should be available to the candidate throughout the selection process, but not be obviously watching the candidate since this will encourage interaction.

Explain clearly and succinctly to the candidate what the assessment procedure involves, why it is being used and how it is appropriate to the post for which the person is being considered or other use.

Respond directly and reassuringly to any questions which the candidate may ask, taking care to check out that the candidate has clearly understood.

Remember, whether the candidate understands what they are supposed to do is not part of the assessment task.

Once the candidate begins to answer the questions, you should quietly leave them and discourage further contact if you are still in the same room. The use of this assessment product can be dramatically devalued by poor assessment conditions and poor discipline on the part of the test administrator.

If the candidate appears uncomfortable you must have the discretion to ask them if everything is OK and to decide if and when to end the assessment session prematurely. This will   only   arise   extremely   rarely,   but   you   must   be   prepared   for   it.

Please remember that the assessed person will see you as an expert and whilst you should not encourage this point of view, you need to maintain some distance between the candidate and yourself in order to enable you to manage effectively in the assessment session.

At the end of the assessment session you should close the system down, explain to the candidate what happens next and ensure that they clearly understand you in this respect.

7.   Validity and Reliability

During 1988 the new assessment system was trialled on a group of 362 applicants for jobs. The information from this trial was used two ways: -

1)   **Analysis of Questionnaire Results**

To determine the performance of applicants on the various computer-based questionnaires and thereby indicate scores to be used to determine the selection of applicants for job offers based on these questionnaires. Candidates for whom English may not be a first language are also examined as a distinct group.

2)   **Point Biserial Correlation of questionnaires with current system**

To analyse the selection decisions made by the current selection method, on the applicants, and to correlate them with the results from the trials with the revised selection procedure.

7.1   ANALYSIS OF QUESTIONNAIRE RESULTS

All of the data was analysed which produced the following results

Table 1 - Total sample

SCALE	Number	Mean	Σx	Σx²	Variance	SD
Educational attainments	356	3.62	1272	11120	18.5	4.3
Job tenure	352	7.73	2724	24416	9.5	3.1
Economic status	307	-.25	-79	2065	6.7	2.6
Security risk	179	1.87	335	1247	3.5	1.9
Drive & ambition	356	66.06	23520	1716372	457.7	21.4
Personal responsibility	356	42.48	15123	687357	126.6	11.3
Social adjustment	356	65.89	23459	1695679	422.0	20.5
Attitude to authority	356	55.09	19614	1116522	101.1	10.1
Attitude to theft	356	54.25	19315	1171773	348.8	18.7
Faking good	356	36.83	13113	495557	35.4	6.0
x = scores						

Candidates for whom English may not be the first language

A similar analysis was performed for those people who it was estimated might not have English as their first Language.

The results were as follows, and though the group had lower ability scores there were also some other useful indicators. The group as a whole showed less drive and ambition, and social adjustment but on the responsibility and attitude to theft scales there were significantly superior scores.

The study did not provide data which would warrant using a different procedure for non English first language speakers.

Table 2 - Candidates for whom English may not be the first language

SCALE	Number	Mean	Σx	Σx²	Variance	SD
Educational attainments	17	7.76	132	1302	17.3	4.2
Job tenure	68	8.23	560	5218	9.0	3.0
Economic status	56	-.39	-22	352	6.2	2.5
Security risk	26	1.61	42	86	0.7	0.9
Drive & ambition	68	62.35	4240	296832	484.4	22.0
Personal responsibility	68	44.73	3042	143236	106.7	10.3
Social adjustment	68	57.83	3933	253655	390.7	19.8
Attitude to theft	68	58.60	3985	249429	237.3	15.4
Faking good	68	36.83	2505	939947	24.9	5.0
x = scores						

Comparison of tests: candidates offered employment v. rejects.

Test scores are derived by adding together the number that each person has correctly answered. This score is called a Raw Score. It is not of great value when interpreting the results since the interpreter has no idea what the score means. A score of 20 on a hard maths test may be very good whilst a score of 50 on an easy History test may in fact be quite poor. In order to make sense of the results a number of simple statistical methods are used.

The first is the mean or average. The mean score when calculated is in a sense the score in the middle. Half of the candidates score above the mean and half below. So if the mean on the maths test mentioned earlier was 15 a score of 20 would be quite respectable.

Knowing the mean score does not tell us enough however to evaluate a score of 20. It could be the case that everybody scored very near to the mean score between 13 and 17 - in which case a score of 20 is brilliant. If the scores are a long way from the mean at around 5 or 6 at the bottom end and 25 or 26 at the top end then a score of 20 begins to look average.

The second statistic used in test interpretation is the standard deviation(SD). The larger the SD the greater the spread away from the mean. A small SD means that the scores are clustered around the mean.

These two statistics provide us with a method of comparing groups as well as individuals. In the following table three groups or samples were compared. Group 1 consists of the 26 people in the sample who were appointed. Group 2 includes all group 1 plus 12 people who were made offers but did not accept. Group 3 were those who were sent reject letters.

From the table you will see that the means for the majority of those offered employment are higher than those of the rejected group. When comparing two means in this way it is usual to use a Test analysis to examine whether the differences in scores are "real" or have occurred by chance. The results of this test are shown on the right side of the table. A figure of .001 means that the difference is clear .01 less clear and NS or not significant where the difference is not real.

The differences tend to go in the direction one might expect with the selected group showing superior scores. The main exception to this is the Attitude to Theft scale where this group score lower.

Table 3 - Comparison of tests: candidates offered employment v. rejects

SCALE	Commenced work (N=26)		Commenced & offered (N=38)		Rejected (N=163)		Significance
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Educational attainments	4.00	3.8	3.52	3.7	2.95	4.3	.001
Job tenure	7.84	3.1	7.65	3.5	6.95	3.2	.05
Economic Status	0.69	1.9	0.23	2.1	-.44	2.2	.05
Security risk	0.57	0.8	0.52	0.8	0.98	1.7	NS
Drive & ambition	64.42	23.7	61.34	25.9	62.98	25.6	.01
Personal responsibility	39.76	13.9	39.78	15.6	39.79	15.4	NS
Social adjustment	72.34	20.0	67.73	25.2	59.70	24.5	.001
Attitude to Authority	52.88	15.1	50.73	17.8	53.03	16.0	NS
Attitude to Theft	48.00	22.2	48.55	23.5	51.79	21.5	.01
Faking Good	35.69	9.7	34.86	11.8	34.95	9.8	NS

Decisions concerning the appointment of the personnel during the trial phase was carried out without using the test results. Subsequent analysis shows some interesting factors arising from the present selection method. In table 4 the high scorers on the tests have been separated from the low scorers. It was found that there were as many and in some cases more high scorers in the group who were not selected as in the rest.

Table 4 - High scorers

SCALE	TOTAL NUMBER	HIGH SCORERS SELECTED	HIGH SCORERS REJECTED
Educational attainments	120	13	17
Job tenure	246	25	5
Economic status	212	16	14
Security risk	131	5	25
Drive & ambition	246	14	16
Personal responsibility	246	16	14
Social adjustment	246	21	9
Attitude to Authority	246	17	13
Faking Good	246	19	11

Similar figures were produced when educational attainment level was taken into account. In the table below the selected group had high scores and low educational attainment. As can be seen there is little difference between that group and the low educational attainers who were rejected.

Table 5 - High scorers with low educational attainment

SCALE	TOTAL NUMBER	SELECTED	REJECTED
Educational attainments	120	10	4
Job tenure	246	19	5
Economic status	212	11	13
Security risk	131	2	22
Drive & ambition	246	12	12
Personal responsibility	246	14	10
Social adjustment	246	17	7
Attitude to Authority	246	13	11
Attitude to Theft	246	15	9
Faking Good	246	14	10

These studies are helpful in assessing which factors are important. In the tables above a very crude cut off was applied. It is possible to make more accurate judgements when this type of information is organised into frequency tables better known as Norm Tables.

A Norm Table is a standardised frequency table with which individuals may be reliably compared. These tables are constructed by using the mean and SD to iron out crinkles in the data to provide a uniform set of scores with which individual scores can be compared.

Using Norm tables allows cut offs to be established which enable firm decisions to be made based on objective measures. In the table below are the upper and lower cut offs which represent a band of uncertainty. Below the lower cut off reject, above the upper cut off accept. In between the two care has to be taken to examine evidence available from elsewhere to help in the decision. An indication of the way the method operates is given in the table. If the cut off score on the left of the table were applied then in the case of Educational Attainment 4 people who were originally accepted would be rejected in the Exclude column. Similarly a further 62 people who were originally rejected would score high enough to be considered and are in the include column. The remaining two columns are the actual recommended sten scores.

Table 6 - Cut off scores

NAME	Raw Score	E	I	R	A
Educational attainments	3	4	62	2	4
Job tenure	7	4	61	5	7
Economic status	1	6	37	1	2
Security risk*	2	9	60	3	4
Drive & ambition	60	7	74	5	6
Personal responsibility	40	11	62	5	7
Social adjustment	58	4	100	5	6
Attitude to Authority	52	10	107	4	6
Attitude to Theft	47	11	87	5	6
Faking Good*	37	12	91	6	8

KEY
E =   People previously selected who would now be rejected.
I =   People previously rejected who would now be selected.
R =   People scoring below this Sten: Reject.
A =   People scoring above this Sten: Accept.
* =   These scales are reversed. A high Sten is negative, a low Sten is positive.

Just as you were beginning to think this is very simple you have to consider a new factor. Each test gives you a little information but not sufficient to reach a decision. Each test interrelates with others. Where two tests are working effectively they would have a low relationship with each other. If two tests provide the same results you may as well use one of them. To measure the relatedness of tests correlations are calculated. A correlation has a mean of 0 and ranges from +1 at the top end to -1 at the lowest end. When a correlation is +1 it means there is a perfect relation between the two tests. In other words if you were to prepare a rank ordered list of people on one test it would be identical to the second test. When a correlation = 0 there is no obvious relationship and at -1 the rank orders would be reversed so that the person who came first on the first test would be last on the second.

The correlation matrix below shows the relationship between the tests. As an exercise it is useful to mark all the correlations which are greater than +.2 or -.2 and then try to explain them. There are some obvious relationships. Job tenure produces some interesting negative correlations with social adjustment for example. A negative correlation occurs when the relation between two variables is inconsistent i.e. a low score on one links with a high score on another.

Table 7 - Correlation matrix between tests

	JT	ES	SR	DA	PR	SA	AA	AT	FG
Educational attainments	-.3	-.06	-.05	.07	.06	.3	-.08	-.01	-.0
Job tenure (JT)		.2	-.06	-.07	.05	-.3	.08	.06	.09
Economic status (ES)			.01	.07	.07	.07	.04	.08	.2
Security risk (SR)				.08	-.1	-.01	-.01	.01	-.04
Drive & ambition (DA)					.2	.09	.09	.1	-.1
Personal responsibility (PR)						-.01	.2	.2	.04
Social adjustment (SA)							-.2	-.2	-.1
Attitude to authority (AA)								.3	.1
Attitude to theft (AT)									.3
FG = Faking good									

7.2   POINT BISERIAL CORRELATIONS OF QUESTIONNAIRES WITH CURRENT SYSTEM

Point biserial correlations were calculated to test whether the existing procedure selected candidates on the basis of the competences sought by the questionnaires. Studies were carried out on the questionnaires.

From the data in tables 8, 9 and 10 it can be seen that Educational Attainment showed a small difference between the two groups - the appointed group were marginally more qualified than the fail group. This relationship, however, was not observed in studies 9 and 10 when the whole selection group was considered.

The Social Adjustment factor also shows a significant difference where the selected group were better socially adjusted than the fail group. This relationship becomes more marked when the whole selection group were considered in table 10.

The small negative correlation between the selected and fail groups in the factor Security Risk are to be expected since the scale is interpreted in the opposite direction to the other scales. The differences however, given that there is a security procedure are surprisingly small.

The remaining factors show little or no relationship between success or failure with the possible exception of job tenure and economic status which appear to have some influence on the procedure.

Table 8 - Comparison of personnel appointed or rejected

Educational attainments	.10*
Job tenure	.08
Economic status	.11*
Security risk	-.10*
Drive & ambition	.02
Personal responsibility	-.01
Social adjustment	.16**
Attitude to authority	-.03
Attitude to Theft	-.06
Faking Good	.03
N = 180 ** Significant at the .05 level * Significant at the .10 level	

Study 9 indicated some trends but no significant differences between the two groups. The small numbers in the two groups make such comparisons somewhat difficult. In the case of the Personal Responsibility factor the difference narrowly failed to attain significance. What is indicated here is that individuals who fail to take up appointment tend to be more personally responsible.

Similar trends are to be observed with faking good and attitude to theft.

Table 9 - Comparison of personnel appointed and those rejecting offers

Educational attainments	-.04
Job tenure	.15
Economic status	-.06
Security risk	.00
Drive & ambition	-.14
Personal responsibility	.25
Social adjustment	.06
Attitude to authority	.09
Attitude to Theft	.17
Faking Good	.14
N = 35	

Table 10 - Comparison of all failures and all successful candidates

Educational attainments	.7
Job tenure	.11*
Economic status	.11*
Security risk	- .10*
Drive & ambition	.01
Personal responsibility	-.05
Social adjustment	.18***
Attitude to authority	-.01
Attitude to Theft	-.02
Faking Good	.05
N = 188	
*** Significant at the .02 level * Significant at the .10 level	

8.   The Interpretation of Results

Please see the sample report at the back of this Guide.

This product is normative, and this enables a valid comparison to be made between an individual's scores and those of a reference group. As a consequence, it is possible to change the reference groups with which an individual is being compared. You must feel able to do this with our assistance in order to maintain valid use of these materials. As a rough guide to the meaning of the scores when carrying out interpretation please note the following:

Meaning of Scores	Questionable Candidate	Marginal or Unclear Candidate	A Positive Result
Educational Attainments	1	2, 3, 4	5 to 10
Job Tenure	1 to 4	5, 6, 7	8 to 10
Economic Status	-	1, 2	3 to 10
Security Risk	5 to 10	3, 4	1 to 2
Drive and Ambition	1 to 4	5, 6	7 to 10
Personal Responsibility	1 to 4	5, 6, 7	8 to 10
Social Adjustment	1 to 4	5, 6,	7 to 10
Attitude to Authority	1 to 3	4, 5, 6	7 to 10
Attitude to Theft	1 to 4	5, 6	7 to 10
Faking Good	9 to 10	6, 7, 8	1 to 5

Figures based on initial UK sample of 3,000 people in a range of employment

This Guide should serve as an initial indication of how to interpret the scales. Far more detail is provided about validity and reliability in Section 7.

As a general guideline it is not appropriate to make a decision about a candidate based upon their numerical results alone. An interview is necessary which explores these results in further detail and the candidate's judgement about their accuracy.

In addition the query section of the report displays questions which the candidate has answered in ways which indicate a query about their suitability for employment/development. Therefore, it is important to use this information in order to identify their likely suitability through the interview.

In the sample report a range of reasons why the candidate should be questioned further on various aspects of their responses to the questions are provided. These are presented in the form of the question with which the candidate was presented in the questionnaire and the answer they provided, which raises a query about their suitability for employment. In most cases, only a few queries will be raised and this could provide the basis for a valuable and

lively interview. In some cases the candidate may clearly be unsuited to the role for which they are being considered, so long as the procedure has been checked against high and marginal performers. Nevertheless an interview is necessary to check the accuracy of their responses.

The procedure which is suggested in order to aid the interpretation of results is to carry out a small study in your own organisation in order to identify whether the selected dimensions for assessment will distinguish reliably between candidates who are rated as high performers and the rest. It is recommended that this is undertaken by identifying six or so high performing staff in jobs to which selection is occurring for example, and six who are marginally acceptable in their performance. If these small groups are assessed and the two groups cannot be distinguished, then it is worth reviewing whether the appropriate assessment dimensions have been selected, or whether the employment groups are indeed appropriate for use with these materials. **Remember, staff who have significant job discretion will probably produce a questionable result on this product.**

As a general guideline, the results which any individual candidate produces will vary according to the norms with which they are compared. Therefore, it is important to take care to check the appropriateness of the norms with which any individual is being compared. If somebody is assessed against all ten dimensions and produces a highly questionable result on half of those dimensions, it is unlikely that they will satisfy your job requirements, if validation has occurred.

9.   Norms and this product

If you would like any help or assistance with the creation and implementation of norms for this product with respect to your organisation in particular, please don't hesitate to contact us. We are happy to analyse and create your own norms and integrate them into the system, **FREE OF CHARGE.**

This service is provided in the interests of best practice and we do encourage you to take advantage of it. Without this two things may occur:

> First, the norms which you use may simply go out of date and be inappropriate. This means they will provide you with little information which is of value.

> Secondly, you will be missing the opportunity to assess candidates against the most reliable and valid benchmark which you have available, and that is the one provided by your own successfully employed staff.

Sample Report

Employment report

for

Sam Sample

Produced by Selby & Mills in partnership with

Example Organisation Name

Report Date **Thursday 4th November 2004**

Norm Group = **General Population**

This report has been prepared with every care and in good faith. However the interpretation arises from the sum of the candidate's choices and preferences in answering a series of self-report inventories, and should therefore be seen purely as indicative of certain trends in their attitudes at that time.

No liability can be accepted by the interpreter or by Selby & Mills Limited.

Introduction

You recently asked a candidate to complete this questionnaire and the report from that completion is provided below. It is partly the result of the candidate's responses to biographic questions and partly based on their responses to psychometric questions. In both cases you should use it to explore issues further in the interview.

For an explanation of the meaning of the 10 scales which are summarised here, see the User Guide which is available on our web site. You need to be clear about the meaning of the scales if you are to be able to use this report validly and reliably.

The report presents two kinds of information: first, the 10 scale scores are provided on a 1 to 10 (or STEN) scale. If the candidate scores highly (towards 10), this indicates that, on all the scales except 'Security Risk' and 'Faking Good, they responded to the questions consistently with those people in our database who subsequently were judged to be 'effective' and 'productive' employees. Those who score at the lower end on these 8 scales raised questions about their suitability or 'fit' with the job requirements. The reverse applies to 'Security Risk' and 'Faking Good', that is a low score is preferable to a high one. In either case you should explore the areas of doubt concerning their suitability in the interview.

Secondly, we provide below those questions and responses which are indicative of queries concerning their suitability.

Finally, please remember that the assessment is not intended to be used on its own as the basis for an offer or rejection and that it is only suitable for staff with little job discretion and who are working in low margin sectors, such as retail, construction and security, probably on an hourly paid plus overtime basis

Profile

Educational Attainments	7
Job Tenure	6
Economic Status	10
Security Risk	10
Drive & Ambition	5
Personal Responsibility	7
Social Adjustment	7
Attitude to Authority	4
Attitude to Theft	4
Faking Good	1

Questionable Responses

The following responses to some of the questions should be examined.

Question:- During this period of 10 years, how many separate periods of employment have been for less than 2 years?
Answer:- Two or three.

Question:- Do you have any educational qualifications? (for example GCSE)
Answer:- Yes.

Question:- Compared with your current weekly pay, how much would you wish to earn in a new job to feel really satisfied?
Answer:- £31 to £40 per week more.

Question:- How did you hear about employment opportunities with this organisation?
Answer:- From an advertisement.

Question:- Do you have a current driving licence?
Answer:- Yes, but only a provisional licence.

Question:- Have you ever been declared bankrupt, or made a deed of arrangement or composition with your creditors, or had goods repossessed?
Answer:- Yes.

This is the end of the report.
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Notes