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The validity of psychometric testing

What is the most effective way of selecting the right candidate for the job?



“He is a lovely guy, can’t do enough for people. But he always seems to be one step behind. Takes him ages to catch on to a new idea.”

We all know from our own experience that what we need in the star employee is good interpersonal skills combined with mental ability. Interviews are by far the most widely used way of selecting people to fill vacancies (CIPD Annual Survey Report 2010) but are they the most effective way of selecting the right candidate for the job?

The effectiveness of an assessment is measured by its predictive validity. This describes the extent to which a score on an assessment predicts job performance - in other words how far will this test predict how well the candidate will perform in the role? Measured on a scale of 0 to 1, a correlation of 0 would mean that there is absolutely no relation whereas that of 1 represents a perfect prediction. A correlation of 0.3 or higher suggests that the relation is strong enough to be relied on in selection.

The predictive validity of the average unstructured selection interview is less than 0.2 (Source: Smith et al, 1989). However, a selection process that combines a personality questionnaire, a general reasoning test, a structured interview and job simulation exercises can increase the predictive validity yet again to between 0.7 and 0.8, giving you a high level of confidence that you are choosing the best person for the job.

Putting it into context, the correlation between psychometric test data and performance on the job is:

- About 15 times stronger than the relationship between taking aspirin and reduced risk of heart disease
- About five times stronger than the relationship between smoking and subsequent incidence of lung cancer
- The same as the effectiveness of Viagra on improved male sexual functioning

There are psychometric tests available that can identify

individuals who have the same characteristics as high performing individuals in similar roles.

Case Study: Psychometrics and Job Simulation in action

A major international bank initiated a fast track manager programme for ‘A’ level entrants selecting around 200 per year. The selection process was designed and run by the bank staff and consisted of a group exercise and three one-to-one interviews. It was felt to be cost effective since no external fees were paid but it was very resource intensive in terms of employees’ time.

The management was horrified when, at the end of year one there was a 45% drop out rate. This high attrition rate continued in year two and the bank decided to get some help.

HFI designed a one-day process incorporating psychometric assessment and a structured analysis of job simulation exercises. At the end of the third year, the attrition rate fell from 45% to three per cent. Through selecting appropriate assessment tools, we were able to raise the Predictive Validity of the bank’s selection process. This is a good example of how psychometrics and job simulations can be used as part of the selection process.

Selecting and administering tests

When selecting a psychometric test to use, you should need to be sure that the test(s) that you choose have been designed by qualified psychologists skilled in test development. There is no formal body for the control of test publishing but you can get information on the reliability and validity correlations from The British Psychological Society.

It is up to the psychologist or qualified test administrator to use the appropriate quality of test. If you want to know whether the tests you are using are useful predictors of performance ask the suppliers for data on their predictive correlation – or give HFI a call.

For further information please visit

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