

CHAPTER 5

SELECTION TECHNIQUES

5.1 Introduction

Predictive validity lies at the heart of the issue of fairness in testing. If identical distributions existed on predictor and criterion variables for all possible groups with equivalent correlations, there would be no dispute about the fairness of using scores on the predictor variables as a basis for selecting candidates across the board with a view to maximising achievement on the criterion variable, provided the same decision rule has been used. However, these ideal circumstances do not exist.

5.2 Traditional tests as selection techniques

Organisations use psychometric tests to assist in making decisions about the prediction of future work success according to Taylor and Radford (1986:79). These tests are defined as traditional tests.

Saunders (1995:7) declares that traditional psychometric tests measure such aspects as:

- general reasoning;
- abstract thinking;
- algebraic ability;
- arithmetical ability; and
- ability to comprehend written English.

Taylor & Radford (1986:84) suggest that South African population groups obtain significantly different mean scores on a variety of psychological tests which are not necessarily reflected in relevant criterion measures. It is

generally accepted that tests should not be used as the only method of selection, but there are few alternatives left to assess potential applicants as accurately.

"Most test makers acknowledge responsibility for providing general evidence of the instrumental value of the test. The terminal value of the test in terms of the social ends to be served goes beyond the test maker to include as well as the decision-maker, policymaker and test user, who are responsible for specific evidence of instrumental value in their particular setting and for the specific interpretations and uses made of the test" alias Messick (1980:1025).

Many South African psychometric test manuals reveal a lack of information on the development of the test and the biographical details of the norm groups. As the norms are not applicable to all relevant groups this questions the use of the same material according to Taylor and Radford (1986:86). In addition Saunders (1995:6) advocates a radical movement away from traditional psychometric tests.

South African research on a cross-cultural bias in testing has included the investigation of item bias and construct and predictive validity. Not only does ethnicity account for variations in personality tests performance, but the language spoken by the testees and language of test administration also influence results according to van Eeden (1997:151).

Owen (1998:37) and Prinsloo (1998:41) state that the Employment Equity Bill prohibits psychometric tests unless the test used meets the following requirements:

- validated through scientific research to be applicable for the objective;
- fairly utilised on employees irrespective of culture; and
- not biased towards designated groups or previously disadvantaged people.

5.3 Traditional tests in the United States

Testing in the United States is included because of the cultural diversity that is present in South Africa.

Testing is considered to be far more objective than other selection techniques and has often proved to be the most valid selection procedure. Research in the United States confirms that, in general, standardised tests do not discriminate against blacks, although blacks, Hispanics and Native Americans as a group do not score as well as white applicants. The reasons for this, Carrell *et al* (1995:317) explain, are a lower level of education as well as social factors. Manufacturers in the United States are increasingly turning to tests for selection.

DeCenzo and Robbins (1988:151) declare that organisations in the United States historically relied on traditional tests such as intelligence, aptitude, ability and interest to assess applicants. As these tests did not deliver graphology and polygraphology have been used to gather more information about individuals. In recent years the use of traditional tests has decreased considerably for various reasons such as legal considerations, time constraints and costs. Many organisations have eliminated testing as a selection device.

Tests are clearly discriminatory against those who have not been exposed to a specific culture, entrance to which is guarded by the tests according to McClelland (1973:6).

Fleming and Garcia (1998:493) report that the mean senior aptitude test (SAT) scores of white students, in the United States, were significantly higher than those of black students in white schools; and these were significantly higher than those of black students in black schools. This is contrary to psychometricians results in general regarding standardised tests.

The use of personality tests has declined considerably in the United States and Carrell *et al* (1995:319) identify three problems related to personality tests:

- they are usually not valid or reliable predictors of job performance;
- to be of use the job applicants must have sufficient insight to describe themselves accurately. This is generally an unjustified assumption;
- applicants' desire to do well although there are no right or wrong answers means they may give false responses.

Linn (1973:151) compares various studies on test scores of college students, from different cultural groups in the United States, and concludes that differences do not exist between these cultural groups only but between males and females as well. Traditional psychometric testing should therefore be handled with the utmost care.

McClelland (1973:3) debates whether intelligence tests tap abilities that are responsible for job success and concludes that no consistent relationship exists between scholastic scores (school grades and tertiary grades) and actual accomplishments in social leadership, the arts, science, music, writing and, speech and drama.

Thorndike and Hagen (1959) as cited by McClelland (1973:3) obtained 12 000 correlations on over 10 000 respondents between aptitude test scores and various measures of later occupational success and concluded that the number of significant correlations did not exceed what would be expected by chance. The tests were rendered invalid. Yet psychologists continue using them, thinking that the poor validities must be due to restriction in range due to the fact that occupations do not admit individuals with lower scores. But even here it is not clear whether the characteristics required for entry are, in fact, essential to success in the field. It is assumed that manual dexterity is essential for dentistry therefore applicants should obtain a minimum test score for entry. However, Thorndike and Hagen (1959) found this related negatively to the income of a dentist.

On the other hand Ghiselli (1966) as mentioned by McClelland (1973:3) concludes after 50 years of research that general intelligence tests correlate 0,42 with trainability and 0,23 with proficiency across all the job spectrum. The basic problem with many job proficiency measures for validating ability tests is that they depend heavily on the credentials the person brings to the job (the habits, values, accent, interests etc), and whether the person is acceptable to management and to clients. Since it is common knowledge that social class background is related to higher test scores, as well as to possessing the right personal credentials for success, the correlation between intelligence test scores and job success may be an artifact - the product of their joint association with class status.

Resistance to the use of psychological tests started in the United States in 1975 when the then president of the Association of Black Psychologists declared that a psychological test is a quasi-scientific instrument used to enhance racism on social and economic levels and to prevent the admission of black people to education, employment and housing. In 1968 the Black Psychologist Manifesto declared that psychological tests were inherently biased and this gave rise to the banning of group intelligence tests in schools in New York, California and Washington DC as cited in Owen (1998:37).

Employers for example, may have the right to select salespeople who have gone to the right schools and tertiary institutions because they do better, but psychologists do not have the right to argue that it is their intelligence that makes them more proficient in their jobs Owen (1998:38).

5.4 Testing for competence

McClelland (1973:7) suggests the following as an alternative approach to traditional tests:

- The best testing is criterion sampling

If you want to know how well a person can drive a car (the criterion), sample the individual's ability to do so by giving him/her a driver's test. There is ample evidence that tests, which sample job skills, will predict proficiency in the job. (Berry and Houston, 1993:178).

Criterion sampling means that testers have got to get out of their offices where they play endless word and paper-and-pencil games and into the field where they actually have to analyse performance into its components.

According to Arnold *et al* (1998:176) criterion sampling, in short, involves both theory and practice. It requires real sophistication. This is not an easy task as it will require new psychological skills not ordinarily in the repertoire of the traditional tester and moving away from word games and statistics toward behavioural analysis.

- Tests should be designed to reflect changes in what the individual has learnt

It seems wiser to abandon the search for pure ability factors and to select instead tests that are valid so that scores on them change as the person grows in experience, wisdom, and the ability to perform effectively various tasks that life will present.

- How to improve on the characteristics tested should be made public and be explicit

Traditionally answers to many tests are kept as well-guarded secrets, lest people practise in order to obtain better scores or fake high scores. How much simpler it is, both theoretically and pragmatically, to explain to the learner what the criterion behaviour is that will be tested. The psychologist, teacher and students can collaborate in trying to improve the student's score on the performance tests.

To do otherwise is to engage in power games with applicants over the secrecy of answers and to pretend knowledge of what lies behind correlations, which does not in fact exist. (Arnold *et al*, 1998:177).

➤ *Tests should assess competencies involved in clusters of life outcomes*
Some of these competencies may be traditional cognitive ones involving reading, writing and calculating skills. Others should involve what traditionally have been called personality variables, although they should rather be labelled competencies e.g. communication skills, ego development, patience, moderate goal setting etc.

➤ *Tests should involve operant as well as respondent behaviour*
One of the greatest weaknesses of nearly all the existing tests is that they structure the situation in advance and demand a response of a certain kind from the test taker. They are aimed at assessing the capacity of a person to make a certain kind of response or choice.

Respondents generally do not predict operants. Tests should require more lifelike operant behaviour in generating alternative solutions. Therefore these should have more predictive power in a variety of situations where, what the person is expected to do is not as highly structured as is the case in standard tests.

➤ *Tests should sample operant patterns to maximise generalisability to various action outcomes*

The profile of achievements should be reported not only on entry but also at various points throughout the schooling to give teachers and students feedback on whether growth in desired characteristics is actually occurring. Test results then become a device for helping students and teachers to redesign the teaching-learning process to obtain mutually agreed-on objectives. Only then will educational testing turn from the sentencing procedure it now is to the genuine service it purports to be.

5.5 Conclusion

Research concerning cross-cultural applicability of personality tests in South Africa is very limited. Taylor and Boeyens (1991:87) investigated the comparability of the scores of blacks and whites on the South African personality questionnaire and concluded that questionable construct validity on some of the scales was found.

Cronbach (1970) as cited in McClelland (1973:6) states that a traditional test for admission to a tertiary institution gives realistic information on the presence of a handicap. Those in power in a society often decide what a handicap is, and psychologists should recognise this and be more cautious about accepting as the ultimate criteria of ability the standards imposed by whatever group happens to be in power.

If a well-educated South African English-speaker visits Jamaica's poorer region he/she will find that the people speak a variety of English that is almost entirely incomprehensible to him/her. These Jamaicans will speak slowly so that one should understand but one feels like a slow-witted child. How well would he/she do in Jamaican society if this kind of English were standard among the rich and powerful (which, by the way, it is not) and therefore required by him/her to gain admission to better schools and tertiary institutions? He/she will feel oppressed, not less intelligent, as the test would doubtless decide he/she was too slow to comprehend and knowledge of the ordinary vocabulary too limited.

In future psychologists will have to account for their actions in a court of law as illustrated in a dispute between the South African Allied Workers' Union and the Continental China Group. The union objected to the use of psychometric tests as a basis for re-employing workers who had been summarily dismissed. This has focused the spotlight on the validity of tests. Organisations will have to be able to prove that their selection models are validated specifically according to the needs of their specific industry. Generic "old" psychometric tests developed by research institutions for

general testing of ability, personality, aptitude, cognitive ability, etc will not measure up in the new dispensation.

Mclelland (1973:6) concludes that neither tests nor school grades seem to have much power to predict real competence in many life outcomes, aside from the advantages that credentials bestow on the individuals concerned.

Making a paradigm shift from traditional selection tests to an approach blended with scientific and political facets, places the highest premium on identifying potential among those formerly deprived of opportunities in terms of access to education, training and better jobs. Modern psychological assessment should be applied to identify individuals who have the potential to benefit from equitable opportunities according to Prinsloo (1998:41).

Taylor (1992:12) as well as Rademeyer and Schepers (1998:33) emphasises that en route to a new South Africa, where equity is the goal, conventional psychometric tests will fail to provide the solutions to those questions that require answers.

Traditional psychological tests are clearly discriminatory against those who have not been exposed to the specific culture, entry to which is guarded by the tests. A wider array of talents should be assessed for tertiary entry and reported as a profile to the institutions.