

NECESSITY FOR A COMPREHENSIVE PSYCHOMETRIC POLICY WITHIN AN ORGANIZATION

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SUMMARY

Psychometric testing is an important, valuable, widespread and legally protected activity in South Africa. Within the ambit of the organizational context a psychometric policy is required to guide and direct this activity. The purpose of this article is to show how the need for such a policy within an organization can be fulfilled. The article proceeds as follows: *firstly*, the positioning of a psychometric policy within the overall human resource management of an organization is discussed; *secondly*, a definition of the term 'psychometric policy' and the aims thereof are given; *thirdly*, a suggested content for such a policy is outlined; *fourthly* a method of generating this policy is proposed; and *lastly*, the role of the psychologist in this regard is indicated.

OPSOMMING

Psigometriese toetsing is 'n belangrike, waardevolle, algemene en wetlik beskermde aktiwiteit in Suid-Afrika. Binne organisatoriese verband word 'n psigometriese beleid benodig om hierdie aktiwiteit te lei en rig. Die doel van hierdie artikel is om aan te toon hoe die behoefte aan sodanige beleid in 'n organisasie vervul kan word. Die artikel verloop soos volg: *eerstens*, word die plasing van 'n psigometriese beleid binne die algemene menslike hulpbronbestuur van die organisasie bespreek; *tweedens*, word 'n definisie van die begrip "psigometriese beleid" en die doelwitte daarvan gegee; *derdens*, word 'n voorgestelde inhoud vir sodanige beleid aan die orde gestel; *vierdens*, word 'n metode aangedui waarvolgens hierdie beleid daargestel kan word; en *laastens*, word die rol van die sielkundige in hierdie area aangedui.

There has been a growing realization that employees should not be viewed solely as a cost to the organization, but that they are first and foremost an asset which needs to be nurtured and protected like any other asset of the organization (Hartenstein, 1988; Manning, 1989; Spies, 1987; Torrington, 1988; Van Wyk, 1989; Zimble, 1989). This realization is further reinforced in the South African context with its simultaneous shortage of skilled manpower and oversupply of unskilled and semi-skilled manpower, which is expected to worsen even further in the future (Beukes, 1988; Parsons, 1986; Spies, 1987; Van Wyk, 1989), and the crucial role that the correct management of our human resources will play in the future (Zimble, 1989).

Psychometric testing can play an important role in ensuring the efficient and effective utilization of human resources as a valuable asset and can even go some way towards maintaining industrial peace. (Aptitude) testing still remains the most valid means of both entry and internal selection, whereas valid selection tests in turn is the selection technique with the highest utility in bringing about productivity improvements in organizations (Hunter and Hunter, 1984).

Testing is furthermore a widespread activity in South Africa. The degree to which tests are used in South African organizations is, however, difficult to estimate. Such estimates could

TABLE 1
 THE SCOPE AND FREQUENCY OF TESTING IN SOUTH AFRICA

NO. OF PERSONS WHO POTENTIALLY CAN TEST		PERCENTAGE AND NUMBER OF TESTS SOLD DURING 1988 ⁽³⁾			
Type of person	No.	Type	% sold: NIPR	% sold: IPER	No. of answer sheets sold ⁽⁴⁾
Psychologists	2 508 ⁽¹⁾	A-level	85	33	>95 000
Psychometrists	1 812 ⁽¹⁾	B-level	5	28	?
Psychotechnicians	591 ⁽¹⁾	C-level	10	39	> 10 000
A-level testers	About 800 ⁽²⁾				

Notes:

- (1) As at 31 December, 1988 (Price, 1989)
- (2) As during the first quarter of 1989 (Lombard, 1989)
- (3) Percentages and figures are rough approximations (Lombard, 1989; Venter, 1989)
- (4) NIPR only. Does not include frequency with which reusable test booklets are used. The number of answer sheets sold must thus be seen as a lower limit to the number of persons tested.

scope and frequency of testing in South Africa can be obtained from Table 1 which contains statistics on the number of registered psychologists, psychometrists, psychotechnicians and A-level testers at the end of 1988 or beginning of 1989, as well as the percentage and number of tests/answer sheets sold during 1988. At most this table indicates a testing 'potential' and reveals by no means the actual testing that has taken place/is taking place.

In the South African mining industry, which has traditionally been a big tester and may be added in some respects a pioneer in the field of testing, there are about 40 aptitude test centres, each manned by 2 to 3-level testers (i.e. approximately 200 testers in total in the industry currently), testing in the order of 6 300 lower level employees per month on the Industrial Test Battery under the current situation of high labour stability. In previous years (viz. the 1970s), when a much higher turnover rate was prevalent, some 10 000 employees were tested monthly on the Classification Test Battery (CTB). At least 10 to 14 psychologists oversee testing in the industry.

Testing has been seen, furthermore, as such an important and core activity within the repertoire of the psychologist as a professional, requiring specialist background training, that legal and statutory control was thought necessary in order to protect it and guide its use.

The above introductory comments serve to show that psychometric testing is an important, valuable, widespread and protected activity. If these statements hold water, then the need for a comprehensive psychometric policy within an organization in order to ensure the correct use of tests becomes apparent, and indeed becomes compulsory in view of the legal and statutory control imposed on testing.

The purpose of this article is to show how the need for such a policy can be fulfilled. The article proceeds as follows: *firstly*, the positioning of a psychometric policy within the overall human resource management of an organization is discussed; *secondly*, a definition of the term 'psychometric policy', and the aims thereof are given; *thirdly*, a suggested content for such a policy is outlined; *fourthly*, a method of generating this policy is proposed; and *lastly*, the role of the psychologist in this regard is indicated.

In the first instance then, the positioning of such a policy within the overall human resource management of an organization.

POSITIONING OF A PSYCHOMETRIC POLICY WITHIN THE OVERALL HUMAN RESOURCE MANAGEMENT OF AN ORGANIZATION

Consistent with the modern view of employees as an asset and not a cost, and an accompanying change in the role of the human resources specialist (Dyer & Holder, 1988; Spies, 1987; Templer & Hofmeyer, 1989; Walker, 1989; Zabriskie & Huellmantel, 1989), three levels of human resource (HR) management are distinguished, viz. strategic, managerial and operational (Director, 1985; Fombrun et al, 1984; Nkomo, 1988). Table 2 contains definitions of the respective levels and depicts their interrelationship.

The specific functional areas mentioned in Table 2 are interdependent and form an integrated whole. This interdependency can diagrammatically be illustrated in the form of a human resource cycle as given in Figure 1 (adapted and expanded from Fombrun et al., 1984, p 41; Schuler & Jackson, 1987).

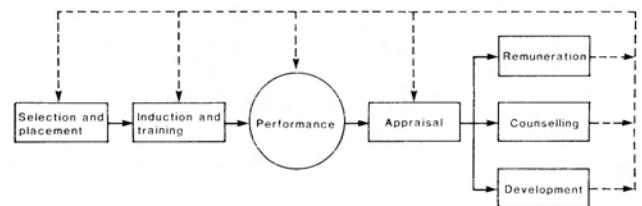


Figure 1. Human resource cycle.

At the least the following four implications flow from the above discussion regarding the three levels of HR management and the human resource cycle:

TABLE 2
DEFINITIONS OF THE RESPECTIVE LEVELS OF HUMAN RESOURCE MANAGEMENT

LEVEL OF HUMAN RESOURCE MANAGEMENT	DEFINITION
Strategic (Where are we going to?) ↓	Determination of what types of staff in what numbers at what points in time are necessary to enable the organization to meet its strategic business objectives within the context of current and future expected trends in the organization's environment. Formulation of strategic HR objectives, as well as overall HR strategies and policies to satisfy this need.
Managerial (What do we need to do to achieve what we want to achieve?) ↓	Designing and implementing specific HR functional policies and programmes as the means of achieving the strategic HR objectives. The specific functional areas usually are: recruitment; selection and placement; induction and training; performance appraisal; remuneration; development; and counseling.
Operational (How are we going to do what we need to do?)	Daily execution of HR plans with their related techniques and procedures in support of the ongoing business activity.

- (i) the types of testing that take place in any organization must be congruent with its strategic HR objectives, as well as its overall HR strategies and policies. If not, testing will not be a means to an end as it should be, i.e. the achievement of the strategic HR objectives, but an end in itself. Under these conditions ad hoc testing, testing for the sake of testing, a shotgun approach to testing and a 'have test, will travel' attitude will permeate the organization. Organizations can no longer afford this approach to testing and psychologists can no longer ethically support such a view. I.e., an unintegrated activity performed without a clear cut contribution to the organization's HR management. Psychologists must thus question organizations on the rationale for their testing and its expected contribution.
- (ii) if testing is *one* of the means of achieving the strategic HR objectives, then a psychometric policy with a commensurate psychometric programme must be formulated at the managerial HR level to direct and guide this activity. This policy and programme will specify the aims and nature of the testing. On the one hand this policy and programme must be based on the same scenario from which the strategic HR objectives, as well as the overall HR strategies and policies have been derived. On the other hand, the psychometric policy and its commensurate programme must be founded on an analysis of the more limited context (i.e. the external and internal organization environments) relevant to testing.
- (iii) the psychometric policy and its accompanying programme must not only be contained to selection and placement (i.e. aptitudes and proficiencies), according to the human resource cycle, but must be expanded to cover all functional areas where testing can, and indeed, does occur: induction and training (e.g. assessment of the degree to which deficiencies have been remedied or proficiencies developed); counselling (e.g. determining the causes of underperformance at the cognitive, emotional and interpersonal levels); and development (i.e. vocational guidance).
- (iv) the psychometric policy and its accompanying programme must be in consonance with and in support of the other functional HR areas both at the managerial and operational levels. Only in this way will the integrity of the human resource cycle as cycle be maintained and synergistically enhanced.

It is thus the contention of this section that the testing activity in an organization must be founded upon a properly formulated psychometric policy and a commensurate psychometric testing programme. If this is so, then the next question that comes to the fore is: what is meant by the term 'psychometric policy' and what are the aims of such a policy?

DEFINITION AND AIMS OF A PSYCHOMETRIC POLICY

A psychometric policy can be defined as a framework of principles to guide and direct all testing within an organization in order to ensure that testing contributes towards the achievement of the strategic HR objectives of the organization and is in consonance with the other functional HR areas.

The aims of such a policy are twofold:

- (a) to ensure that the organization has the right people in the right place at the right time who are performing in accordance with their potential. I.e., testing must be context relevant and be based on the premise of people as an asset of the organization who must be nurtured and well cared for.

- (b) to ensure that the testing activity conducted, and the psychometrically related decisions made along the way, are done in an effective and efficient, as well as an ethical and legal manner.

What do these respective terms refer to? 'Effective' pertains to doing testing for the right reasons; 'efficient' to doing testing right; 'ethical' to treating the testee and his/her test results correctly; and 'legal' to having appropriately qualified testers and controlling the test material as prescribed.

Given the above definition and aims of a psychometric policy, the issue of the possible content of this policy will next be discussed.

POSSIBLE CONTENT OF A PSYCHOMETRIC POLICY

It must be stated at the outset that the content of a psychometric policy is a function of the strategic HR objectives, as well as the overall HR strategies and policies, of the organization under consideration. What is thus given below, will merely be a suggested skeleton for such a policy where even the skeleton may not be similar across all organizations. The way in which this skeleton and its flesh is arrived at, will be discussed in the next section.

Table 3 gives an overview of the areas with their related topics that could be covered by a psychometric policy.

Given the above content, attention must next be given to a means to generate a psychometric policy.

SUGGESTED METHOD FOR GENERATING A PSYCHOMETRIC POLICY

To be viable, to have utility and credibility, a psychometric policy must be relevant to the context within which the testing will occur. I.e., the policy must ensure that testing serves as a means to achieve the organization's strategic HR objectives. This implies an environmental analysis (or scanning): the systematic determination and analysis of current and future expected trends and forces inside and outside the organization which will (or can potentially) affect the organization (e.g. Dyer & Holder, 1988; Murphy, 1989; Nkomo, 1988; Zabriskie & Huellmantel, 1989).

Such an analysis usually is done at the strategic HR level for the overall human resource function. The only step that remains in this case is to draw out the implications for psychometric testing in order to arrive at a psychometric policy. If such an analysis has not been conducted at this macro level, then it must be conducted, albeit in a more limited form, to enable one to formulate a context relevant psychometric poli-

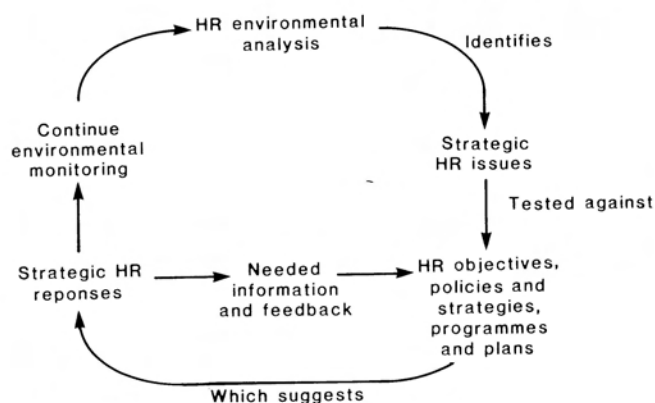


Figure 2. Total process in which an environmental analysis is embedded.

TABLE 3
OVERVIEW OF SUGGESTED AREAS WITH THEIR RELATED TOPICS
MAKING UP A PSYCHOMETRIC POLICY

AREA	TOPICS
1. Expected contribution of psychometric testing towards the achievement of the organization's strategic HR objectives	1.1 Overall purpose(s) of testing as related to strategic HR objectives, i.e. rationale for testing in the organization (e.g. 'right people in the right place at the right time . . .') 1.2 Kind of test mix which is appropriate to strategic HR objectives (e.g. relative mix of proficiency/achievement vis a vis aptitude/potential vis a vis diagnostic/remedial) 1.3 Ensuring of test fairness at all times (e.g. subscribing to a particular fairness model).
2. Appropriate positioning of psychometric testing within HR cycle	2.1 Functional HR areas to which testing is expected to make a contribution and the nature of the contribution in each area. 2.2 Weights to be assigned to testing information relative to other types of information regarding the employee (e.g. work history, training record, attendance record) and other forms of assessment (e.g. performance appraisal). 2.3 Manner in which these different types of information must be combined/integrated (e.g. hurdle vs compensatory approaches). 2.4 Integration of testing information into overall HR management information system to ensure exhaustive use. 2.5 Expected life span of testing information and the relevancy of such information at different points during its life span and the careers of employees.
3. Efficient use of psychometric testing	3.1 Specification of the conditions under which the use of tests would be: (a) more appropriate (e.g. organizational entry, moves across disciplinary boundaries within the organization, underperformance, succession planning). (b) less appropriate (e.g. in some instances organizational design/re-design could be more appropriate in order to fit jobs to people rather than using testing to fit people to jobs).
4. Maintenance, upgrading and monitoring of professional standards	Prescribing inter alia the following: 4.1 the proper standardization and validation of tests for their intended use in the organization. 4.2 the use of only appropriately qualified testers in sufficient numbers. 4.3 the maintenance of acceptable standards of testing facilities, materials and administration at all times to ensure that testees are tested under the best possible conditions. 4.4 the maintenance of a high standard of test material security. 4.5 the maintenance of test score confidentiality. 4.6 the continuous monitoring of test scores, with their accompanying psychometric properties, to ensure that tests function as intended and to detect possible test administration deviations. 4.7 the existence of a testing policy manual which must be updated on a regular basis. 4.8 the supervision by a registered psychologist over the psychometric policy, programme and testing policy manual.
5. Assessment of future psychometric testing needs timeously	5.1 Continuous and close monitoring of current and intended organizational changes in order to ensure that current testing remains valid and that new testing needs are detected at an early stage. 5.2 Close liaison with those disciplines in the organization where changes are most likely to originate or will be detected because of their continuous scanning of the organizational environment.
6. Relationship between testing staff and supervising psychologist (who may be inhouse)	6.1 Nature of relationship between testing staff and supervising psychologist. 6.2 Allocation of the above areas of responsibility between testing staff and supervising psychologist.
AREA	TOPICS

- (c) *the accelerated rate of technological and skills obsolescence because of more rapid technological change (economic and technological dimensions)*: the necessity for the means to identify employees with the aptitudes for advanced technologies, as well as those with surmountable cognitive deficiencies and ways to assess the successfulness of the remediation of such deficiencies.
- (d) *an organization in the "start up" phase (organizational life cycle)*: selection and placement of employees with profiles congruent to this phase whatever that may be.
- (e) *steep, centralized and formalized structure with narrow jobs (organizational structure)*: placement (rather than selection) of commonly available semi-skilled and semi-literate employees into lower category jobs.

In a similar fashion all of the expected present and future trends and forces, internally and externally to the organization, can be delineated via an environmental analysis and can implications be derived for inclusion into the policy. The implications must, however, also be tested against the strategic HR objectives to ensure that the way in which they are accommodated in the policy make a contribution towards the achievement of these objectives.

Up to this point the role of the psychologist in satisfying the need for a psychometric policy within an organization has only been touched upon indirectly. Direct attention must next be given to this aspect.

ROLE OF THE PSYCHOLOGIST

The role of the psychologist in this regard includes at least the following:

- (i) the sensitization of the organization to the *strategic* contribution that psychometric testing can play in the overall HR process in the organization and the education of key staff in this regard.
- (ii) assisting the organization in the conducting of an environmental analysis on which to base a psychometric policy and facilitating the drafting of such a policy (or drafting the policy on behalf of the organization).
- (iii) operationalizing of the psychometric policy into a psychometric programme at the operational HR level to structure the daily testing activity undertaken in the organization.
- (iv) the drafting of a testing policy manual for the organization or assisting the organization in this regard (for an example of a possible content for such a manual, see Appendix A).
- (v) the overseeing of the actual testing activity in the organization at an operational HR level to ensure that it is in accordance with the organization's psychometric policy and programme.
- (vi) ensuring that the psychometric policy and programme, as well as the testing policy manual, remain up to date.

CONCLUSION

The major premise of this article has been that our organizations are in dire need of a psychometric policy to guide and direct the testing that takes place in these organizations. Only in this way will testing be of maximum value and utility to organizations and will the ethical and legal requirements attached to testing be more closely adhered to.

In the absence of such a policy, the following situation, as illustrated by a quote from "Alice in Wonderland," will hold:

"Would you tell me, please which way I ought to go from here?" "That depends a good deal on where you want to get to," said the Cat. "I don't much care where —" said Alice. (i.e. the psychologist and organization. THV) "Then it doesn't matter which way you go", said the Cat. "— so long as I get *somewhere*", Alice added . . . "Oh, you're sure to do that," said the Cat, "if you only walk long enough." "

(Carroll, L., *Alice in Wonderland*).

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APPENDIX A

SUGGESTED TESTING POLICY MANUAL *

1. SUGGESTED CONTENT

Introduction

Extent and relative importance of psychological testing in general and in organization specifically.

CHAPTER 1: PSYCHOMETRIC POLICY OF ORGANIZATION

CHAPTER 2: LEGAL AND STATUTORY REQUIREMENTS

Act 56 of 1974 as amended

Control and use of tests

Registration categories for test users

Types of tests: A, B, C tests

Test Commission of the RSA

Misuse of tests

Ethical aspects of testing

CHAPTER 3: CURRENT TESTS IN USE IN THE ORGANIZATION

For each test in use, this chapter would indicate:

- target group (i.e. job categories)
- attribute(s) the test is measuring
- language usage during test administration
- retesting policy
- order of testing where applicable
- classification of test, if applicable

A reverse table classifying the test available by target group (i.e. job categories) would also be useful.

CHAPTER 4: ORGANIZATIONAL STRUCTURE FOR TESTING

- psychologist in relation to organization
- place of the Test Centre in relation to the organizational structure of the organization
- organizational structure of Test Centre itself
- job descriptions for testers

CHAPTER 5: TRAINING OF TESTERS

- who will train testers with respect to each test?
- frequency of and usual venue for training
- nomination procedure for training

CHAPTER 6: TEST ADMINISTRATION

- physical requirements regarding test centre
- ordering procedure for test material
- security of material and results, as well as record keeping
- handling of scores and release of test information to parties concerned
- confidentiality
- border-line cases
- quality control
- updating of norm tables
- setting of cut-off points
- updating of testing practices

- handling of grievances regarding testing
- procedure for handling irregularities, e.g. unforeseen disruption of testing session

CHAPTER 7: USE OF TEST RESULTS IN CONJUNCTION WITH OTHER EMPLOYEE INFORMATION

- Interaction between tester/test centre and user of information

CHAPTER 8: TEST FAIRNESS

- Guidelines on how to ensure test fairness

CHAPTER 9: EXTERNAL LIAISON WITH TEST CONSTRUCTION AND DISTRIBUTION INSTITUTIONS

CHAPTER 10: NEW TESTING NEEDS AND TESTS

- future expected testing needs in the organization
- policy regarding the implementation of new tests
- preferred validation procedure for new tests

2. FORMAT

The format of the manual needs to be such so as to accommodate changes from time to time (e.g. loose leafed file).

*Drawn up in conjunction with W. Olivier, Dr. P.J.D. Lourens and A. McCartney of the Human Resources Division.