

HSRC RESEARCH OUTPUTS

3410

# SAIOPSA CONFERENCE

24 – 25 JUNE 04

## **Analysis of Psychological Assessment needs in Industry: Current patterns and future trends**

A comprehensive survey of the needs of psychological practitioners and has not been conducted to date in South Africa. The HSRC became aware of this void and conducted a needs analysis in the field of psychological assessment to determine the current state of psychological testing in South Africa, as well as future needs and trends. The research project covers aspects such as which tests are most frequently used and whether they should be updated or adapted, as well as what types of additional tests are required in practice. The study was designed to include a national survey of all registered psychologists, focus group interviews with practitioners and individual interviews with key informants in the field. The quantitative and qualitative data were analysed separately and integrated in a comprehensive report. The focus of this presentation will be on the data gathered through the survey and individual interviews. These findings illustrate issues such as: (ii) importance of psychometric properties such as reliability, validity and norming, (iii) profile of testees, (iv) ethical use of tests, (iv) suggestions and requirements for the development of new tests and (v) monitoring and management of the quality of psychological services and tests.

Heidi Paterson<sup>1</sup>, Natalie Le Roux, Cheryl Foxcroft

### **Introduction**

In 2004 industry in South Africa faces challenges in terms of psychological test use, adaptation and development. A comprehensive survey of the needs of psychological practitioners and key stakeholders regarding which tests are most frequently used and whether they should be updated or adapted, has not been conducted to date. Basic information is not available about the preference for instruments or needs in terms of the development of new measures.

The Psychological Assessment Needs Analysis conducted by the HSRC under the leadership of Prof Cheryl Foxcroft, took place over a 5-month period and followed a multi-discipline, multi-pronged approach to collecting data included a national survey, focus group interviews and individual interviews.

The findings from the survey and individual interviews relevant to psychological assessment in Industry will be discussed.

This research aims to encourage discourse on the use of psychological assessment in Industry, as well as the future direction of testing in South Africa. The study should thus provide an accurate valid picture of the tests currently in use in Industry and the testing practices favoured and will not only focus on determining the gap, as this is

---

<sup>1</sup> Correspondence to Heidi Paterson, HSRC, Private Bag X41, Pretoria, 0001

already known in many cases. Based on this information, trends in psychological assessment in Industry will be identified and discussed.

## **Methodology**

### ***Survey***

A quantitative study was carried out by developing a questionnaire that was posted to all registered psychological practitioners in South Africa.

### ***Population***

The full population of registered psychological practitioners was targeted for this study. Six thousand six hundred and fourteen (6614) questionnaires were sent to all practitioners and a total of 881 questionnaires were returned by the due date for data capturing. This is a 13.3 % return rate. According to Magione (1998) if you have a response rate less than 50% then the results are not scientifically acceptable. This return rate is barely satisfactory and could have implications for generalisability.

### ***Descriptions of the respondents***

The most common language of communication, as reported by participants, between a practitioner and his/her client is Afrikaans and English. Thirty-six percent of the practitioners communicated with their clients in Afrikaans and just over 50% of the practitioners communicated with their clients in English. About 2.7% of practitioners used isiZulu and 2.2% of practitioners used isiXhosa as the medium of communication.

In the survey, 33.9% of the respondents were male and 64.4% female, with 1.6% non-response.

Of the sample 55.1% were employed in private practice, 12.3% at universities, 10.9% in industry, 14.5% in government departments. The remainder was made up of people working in consultancies, or private schools, unemployed or retired.

The categories of registration varied and 24.5% of practitioners were registered as clinical psychologists, followed by 22.5% educational psychologists, 19% counselling psychologists, 12.9% industrial psychologists and 13.3% Psychometrists. Just over

3% were registered as research psychologists. Table 1 shows the distribution of the practitioners in the various categories.

**Table 1. Distribution of respondents by registration.**

Category of registration	Frequency	% of cases	Average years of practising
Clinical	238	24.5	12.0
Counselling	185	19.0	11.6
Industrial	125	12.9	10.0
Educational	219	22.5	10.1
Research	33	3.4	8.7
Psychometrist	129	13.3	6.4
Psychotechnician	2	0.2	5.0
Registered counsellor	15	1.5	9.4
Student	5	0.5	2.5
Student intern	11	1.1	1.5
Other	10	1.0	8.3
Total	972	100	85.5

### ***Individual Interviews***

#### ***Participants***

Participants were purposively sampled to obtain views from relevant experts, knowledgeable in the current trends in psychological testing. The participants practise at different levels in the field, as well as in different institutional contexts. The sampling was not designed to achieve representivity, but to ensure that all participants selected were familiar with the subject matter. The aim of the study was not to replicate or transfer the findings to a broader population, but to provide an accurate account of the perceptions and opinions of the particular participants.

It should be noted that the participants included only test users, and non-users were not approached. The views and experiences of non-users were not probed. This could lead to a gap in the data, as the reasons why some people choose not to use tests, are not explored. This could be an area of interest to be explored by further research.

Before focussing on the specific areas of interest for industry, an overview of the general process of participant selection has to be provided. The participants included stakeholders working with people in all the critical life phases, e.g. young and preschool children, school-going children, youth and adults. The focus was on critical life events such as school readiness, career guidance, selection and placement, development, etc. in respective life phases, as well as understanding the link

between the different life phases. Certain crosscutting themes were also addressed, for example identification of psychopathology through the use of psychological instruments and the use of assessment tools for forensic purposes. These examples demonstrate that some psychological instruments can be used across the different life phases.

For the purposes of this presentation, the emphasis is on the findings obtained from interviews with stakeholders and decision-makers in Industry. The Sector Education and Training Authorities (SETAs) served as a selection criterion, and inclusion from all the different SETAs was considered. Because there are a large number of SETAs, a decision was made to group them together to cover broad areas of economic activity. At least one representative from each category was interviewed. The following categories were used: Services, Public, Social Services, Manufacturing, Communication and Technology and Resource-based

Twenty-two interviews were conducted with senior decision-makers and important stakeholders. Approximately half of the participants were female, and the majority of participants were white. The low representivity of black people in decision-making positions is of concern. An overwhelming majority of decision-makers with regard to psychological testing is still white. It should be noted that this report does not adequately reflect concerns of black people with regard to psychological testing.

All the interviews were conducted with registered psychologists across the registration categories (clinical, industrial, counselling, educational, and research), with the exception of two, where union representatives and decision-makers in the Department of Education were interviewed. In some cases more than one individual participated in the interviews. The demographic information of the participants are tabulated below:

**Table 2: Demographic information of participants**

Demographic information of participants									
Gender		Race /ethnicity		Number of participants per category					
Male	Female	Black	White	Services	Public	Social Services	Manufacturing	Communication and Technology	Resource-based

20	26	11	35	23	3	14	2	2	2
----	----	----	----	----	---	----	---	---	---

***Instrument design***

Data was gathered through structured individual interviews with experts in the field of psychological testing

The research questions were based on certain indicators that were identified as relevant to the current and ideal future state of psychological testing. These indicators are:

- psychological tests currently in use
- strengths and limitations of current psychological tests
- suggestions and requirements for the development of new tests
- importance of psychometric properties such as reliability, validity and norming
- monitoring and management of the quality of psychological services and tests
- the functions, powers and responsibilities of a central test agency

**Data analysis**

***Survey***

Only descriptive analysis was done on the survey questionnaire. Data were represented in terms of frequencies and percentages, and needs were rank ordered. Frequencies were cross-tabulated to determine the relationship between test use and the different categories of registration.

***Individual interviews***

Analysis commenced as soon as the bulk of the interviews were conducted. Through the analysis, certain themes and areas of interest were identified that required further exploration. These additional themes were included in the last round of interviews conducted and the information integrated into the report.

Data from the interviews and the survey were triangulated. The data is also compared to and enriched by a literature review that was done at the end of the study.

## Findings

### ***Theme 1: Use of psychological tests***

This theme covers changes in the overall usage of tests with reference to volume and variety.

#### *Volume and application of tests*

Psychological tests are used in various fields and for a range of purposes. Testing is done on large scale (between 1000 and 35 000 people per organisation annually) and nationally. In most cases it is reported that psychological testing is done on a daily or weekly basis. In some cases the frequency of testing depends on the time of year, or the availability of certain specialist positions for which assessment is required. In other cases testing is done in a regular 18-month cycle where the same respondents are tested repeatedly.

A description of the tests used is provided in a later section.

### ***Theme 2: Purposes for which psychological tests are used***

Psychological tests are used for a range of purposes. The table below identifies the purposes, ranging from most to least frequently cited.

**Table 3: Purposes for which psychological tests are used**

<b>Most frequently cited</b>	<b>Cited to an extent</b>	<b>Least frequently cited</b>
<ul style="list-style-type: none"><li>• Selection and recruitment</li><li>• Training and development</li><li>• Team development</li><li>• Interpersonal skills and self-improvement</li><li>• Career counselling and development</li><li>• Succession planning</li></ul>	<ul style="list-style-type: none"><li>• Identification of potential</li><li>• Research</li><li>• Screening of large numbers of people</li></ul>	<ul style="list-style-type: none"><li>• Optimal fit and placement</li><li>• Retention</li><li>• Determining literacy levels</li><li>• Accreditation of qualifications</li><li>• Promotion</li><li>• Identifying behaviour problems</li><li>• Job analysis</li><li>• Development of leadership</li><li>• Bursaries and evaluation</li><li>• Training of users</li></ul>

Both the findings from the interviews with data from the survey, concur that psychological tests are used most frequently in Industry for selection, training and career development.

**Table 4: Purposes for which psychological tests are used by psychometrists and Industrial psychologists**

<b>Purpose</b>	<b>No of Industrial practitioners</b>	<b>Percent of industrial</b>	<b>No of Psychometrist</b>	<b>Percent of Psychometrists</b>
Employment selection assessment	108	86.4	75	58.1
Selection of people for training in employment setting	91	72.8	71	55.0
Career assessment or development	117	93.6	107	82.9

***Theme 3: Profile of testees***

Psychological testing is done across a broad spectrum of people and on all age groups. Males and females are included equally in the testing group. Different tests are designed to be used with respondents from all qualification levels, which makes it possible to test people with limited education (less than Grade 10) up to graduates and people with tertiary qualifications. Different test batteries are administered to all levels of workers in the organisation, from unskilled labour up to executive management. The testing population includes all race groups and testing is done in groups or on an individual basis. In most cases testing was done nationally, which implies that testing is done across urban and rural contexts.

It seems as if two groups of people are not catered for adequately in psychological assessment, i.e. people with disabilities and people with low literacy levels.

***Theme 4: Tests currently in use***

The participants cited the use of a range of psychological tests during the interviews. These tests were categorised according to the general purpose of use and the frequency in which it was cited from the most to the least cited per category of purpose of use.

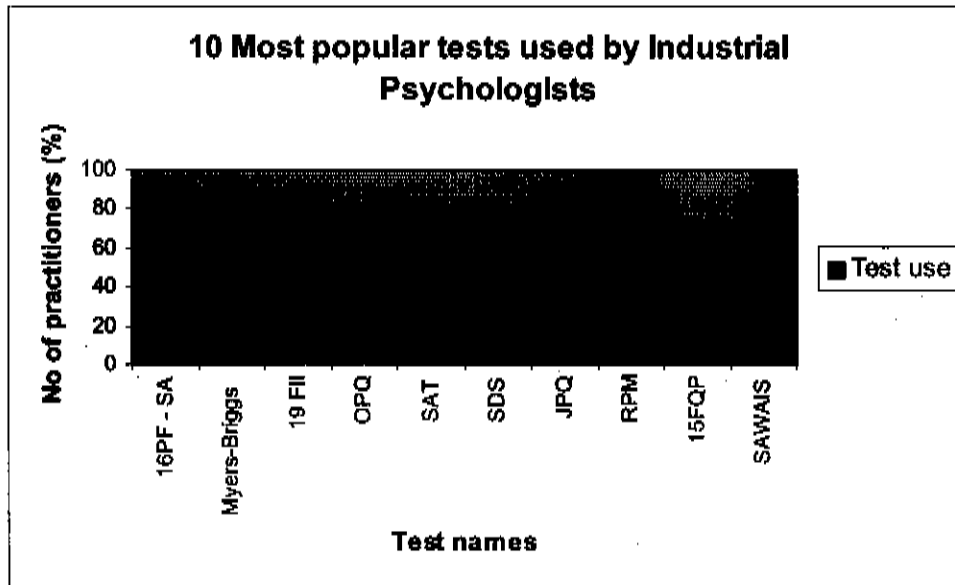


**Table 5: Tests currently in use**

Purpose of use	Psychological test
Cognitive tests	Potential Index Batteries (PIB) Situation-specific Evaluation Expert Batteries (SpEEX Batteries) South African Wechsler Adult Intelligence Scale (SA WAIS) Cognitive Process Profile (CPP) Wechsler Adult Intelligence Scale (WAIS-III) IRIS* Ravens Progressive Matrices
Aptitude and ability	Differential Aptitude tests (DAT) and Senior Aptitude Test (SAT) Clerical Test Battery (CTB) Academic Aptitude Test (AAT) Various instruments measuring spelling, language proficiency and reading comprehension*
Personality	16PF Meyers Briggs Type Indicator (MBTI) Occupational Personality Questionnaire (OPQ) 15 Factor Personality Inventory (15 FQPlus) Minnesota Multiphasic Personality Inventory (MMPI) Jung Personality Questionnaire (JPQ) California Psychological Inventory (CPI) Giotto Integrity Questionnaire Mullins Clinical Multi-Axel Inventory (MCMI)*
Interest	South African Vocational Interest Inventory (SAVII) Advanced Occupational Interest Inventory (AOII)* Self-Directed Search (SDS) Meyer Interest Questionnaire (MB10)
Judgment	CPA (Career Path Appreciation)* Career Anchors
Potential	Learning Potential Computerised Adaptive Test (LPCAT) APIL TRAM I and II
Projective techniques for a range of purposes including personality, interpersonal functioning, diagnosing emotional disturbances, etc.	Rorschach Inkblot Test Thematic Apperception Test (TAT)
Interpersonal relationships and emotional intelligence	BarOn Emotional Quotient Inventory (BarOn EQ-i) Belbin Team Role Inventory*
Simulation exercises	Vienna Test System Simulation exercises developed by the users themselves*
Other	Assessment centres* Role Play* In-tray* 360 Assessment*

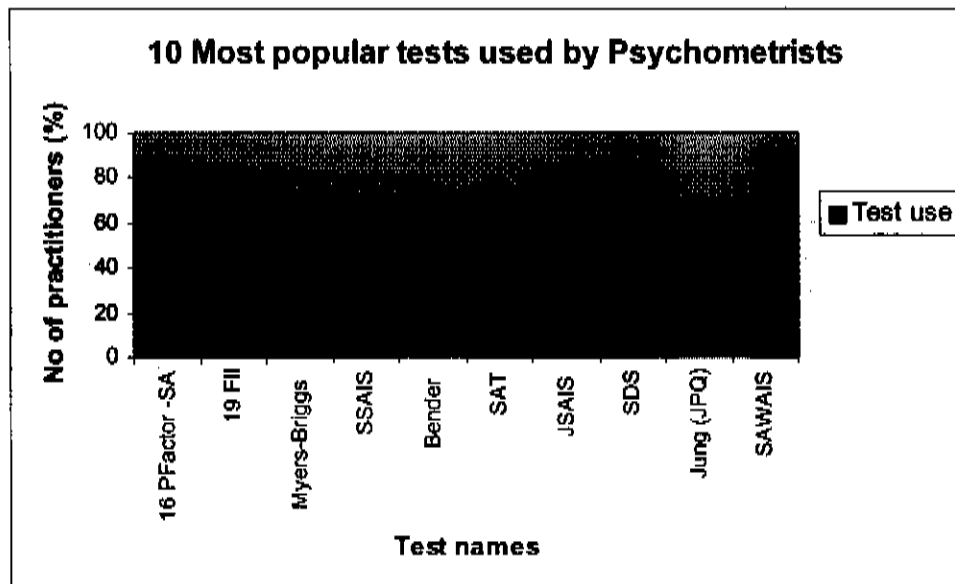
\* Instruments not classified as psychological tests by the Psychometrics Committee of the Professional Board of Psychology for the Health Professions Council of South Africa as on Feb 2004-02-23. These instruments might either be under consideration for classification or they might not have been submitted for classification.

The data from the interviews were triangulated with information from the survey. Figure 1 provides a description of the ten tests most frequently used by psychometrists (This includes all areas of psychology and is not limited to Industrial Psychology)



**Fig 1: Tests most frequently used by psychometrists**

The next figure illustrates the ten tests most frequently used by Industrial Psychologists



**Fig. 2: Tests most frequently used by Industrial Psychologists**

From the survey, information was gathered indicating that Industrial psychologists use 199 tests (82.2%) from the list of 242 tests registered with the HPCSA. Psychometrists use 213 (88.0%) of these tests.

### *Reasons for excluding certain tests*

Participants cited many reasons why some tests are no longer used and excluded from the test battery. These reasons include: (i) the test becoming outdated, (ii) the test not being culture friendly, (iii) poor research on the application of the test, (iv) insufficient support from the distributor (v) exorbitant prices, and (vi) a changing population.

## ***Theme 6: Issues relating to psychological testing***

### *Ethical use of tests*

#### **Defining ethical use of psychological tests**

The ethical use of psychological tests is defined as:

“... it must be a responsible test and it should be responsibly used. It must be relevant firstly and interpretation must be done responsibly by suitably trained people.” Participant, Services

Psychological tests should not be used in isolation, but can be utilised in conjunction with other methods such as interviewing, reference checking and clinical insight, and should meet the requirements and objectives of the assessment. Basing decisions on results obtained from tests which are irresponsibly utilised, can lead to the loss of money and trust in the practice.

Users are guilty of unethical practise when:

“...they use it simplistically, mechanistically, without understanding the full context. It is irresponsibly used – it's like using a medicine that you are not trained to use.” Participant, Services

### *Unregistered tests*

The use of tests not registered with the HPCSA happens not only because of wilful malpractice, but links to difficulties experienced in terms of testing and is a symptom of a wider problem. The reasons for using unregistered tests can be because of its accessibility, a lack of awareness amongst users for responsive, updated tests. These themes are more fully explored below.

- Many test-users utilise tests not registered with HPCSA because these tests are more easily accessible. The test-user does not have to be a registered psychologist. A wider range of people can thus administer these tests and the organisation can save money by not employing a psychologist.

- Many test users move away from old HSRC tests that have been registered with the HPCSA, because the perception exist that these tests are outdated and discriminatory in nature.
- There exists a lack of awareness and knowledge about which tests are registered and which not.
- There is a need for tests that cover specific areas, which are not included in the list of tests registered with the HPCSA. The user is then forced to use other available measures, which might not be registered by the HPCSA. In some cases, test users develop tests themselves to suit their unique needs and circumstances.
- Tests with an international reputation and solid base of research are used in South Africa, without considering the fact that the test is not standardised for use in South Africa.
- Some organisations are constantly searching for cutting edge tools to enhance their competitive advantage. These tests are new on the market and have not been through the registration process.
- Before test registration can take place, instruments have to be piloted in the field to ensure reliability, validity and minimising of bias. Test users administer these tests and feed the information back to the distributors for developmental purposes.

Most companies feel very uncomfortable using unregistered tests, as this leaves them open for litigation according to the Psychometrics Act.

Test users should also not be blinded by test registration. If a test has been registered with the HPCSA, it does not imply that the test is of high standard. The HPCSA only deals in the registration of tests, and not quality assurance of tests. There is thus a possibility that tests of high quality may not be registered and all registered tests are not necessarily good tests.

The registration process with the Psychometrics committee is viewed as very stringent, bureaucratic and in many ways confusing. It is also expensive to submit tests for registration. The thoroughness of the process is questioned. There should be independent studies to validate results. The decision about which tests to table for registration should not be left to the test developer.

*Inadequate policy implementation and monitoring*

There is a low awareness among test users of the requirements and regulations guiding the use of psychological tests. The absence of clear guidelines, control and

governance may lead to abuse. Respondents are not aware of their rights and may be abused through irresponsible test usage. There are no measures in place to ensure that policy is implemented and adhered to, and not enough evidence is seen of enforcement of regulations. The test developer should ensure that all criteria for a well-developed and researched testing measure are met. The test user has a responsibility to ensure that the instrument is valid for the purposes for which they use the tests and should review issues such as reliability and norming. Ensuring the ethical use of instruments is therefore a shared responsibility between the test developer and user.

A policy document stating when, where and how psychological tests can be used should be available and easily accessible. The participants observe that they don't get enough support from the HPCSA:

"I can't see that I'm getting any value from the HPCSA in terms of assessment... That they address the matter, have debates about it, do training, have workshops or develop guidelines [and] regulations..." Participant, Services

#### *Inadequate training*

Some participants feel that the negative connotations around psychometric testing could be ascribed to unqualified, incompetent administrators, and not the tests themselves.

"The weaknesses here are not bad tests, but bad psychologists that use things incorrectly, or that use it exclusively, as if tests always give the complete picture. That is not true – it is only a tool." Participant, Manufacturing

Participants feel that distributors are inconsistent with their requirements for the use of their instruments. They are expected to attend training, which is expensive, although the criteria of who are allowed to attend the training are lax. The Health Professions Council of South Africa (HPCSA) should regulate the training provided.

#### *Language of test construction*

The most frequently cited hindrance to the administration of psychological tests is language. Language can be problematic on two levels: (i) the language of the test and (ii) the language competence of the testee.

It was strongly argued that, language should not prevent people from benefiting from psychological testing:

"But the most important thing is not to use it as a barrier. Not to say that it keeps the person away from training, but that it is an indication to him or the organisation that he first improves his language ability, because if he improves his language ability, he will perform better academically. Because if the language is bad, language becomes your barrier academically. Participant, Social Services

Language is tied closely to culture. Certain constructs and concepts are experienced differently in different cultures and become culturally unfriendly when applied cross-culturally. The cultural context particularly becomes a problem when doing personality assessment.

The participants stated that the language issue should be addressed as a matter of urgency:

"... where language and educational difficulties are a problem, we have to be creative in terms of how to measure it in a more tangible, concrete way." Participant, Services

#### *Lack of test for people with disabilities*

There seems to be a lack of instruments catering for people with disabilities. This is problematic, seeing that a significant percentage of the population is disabled, and will thus be excluded from assessment.

#### *Changing world of work*

Psychological tests do not keep up with a changing world. The tests are outdated and irrelevant.

" [I think those things have to be updated every 5 years] in this fast changing world in which we live. Because at present you are actually making inferences. You carry certain information over to other fields, because these fields are not being measured. And your population is changing." Participant, Manufacturing

### ***Theme 6: Test developers and distributors***

#### *Cost of testing*

Assessment is very time consuming, which requires a substantive investment from the client and end-user in terms of time and money. Some distributors link the price of the instruments to continued research, but this a counterproductive practise as this leads to exorbitant price increases.

The majority of participants feel that the instruments are very expensive, which makes it inaccessible to a large group of users. In some cases, testing is only done on senior management, and people from lower ranks are excluded.

### *Test distributors and questionable practices*

Many test developers approach clients with instruments that promise bogus results. These consultants market instruments as non-psychological and convince unsuspecting clients that they will be protected legally if they use it. Participants are very negative about this 'hard sell' approach.

Many managers in industry are not aware of the benefits and complications of using psychological tests. Test users are not skilled in choosing appropriate tests, and become confused when confronted with a wide variety of instruments. This lack of awareness should be addressed, so that they can make an informed decision. Test developers could also compile and formalise a code of practise for test developers, which will guide them in developing tests, and protect the public when purchase decisions have to be made.

Most test developers back their products with sound research and are trusted by users.

### *Market and competition and the effect on choice*

Participants feel that an increase of test developers and the consequent competition lead to an improvement in the quality of tests material, and keep the price under control. Competition in the marketplace ensures that distributors constantly upgrade and improve their instruments, as the client has the opportunity to compare products. A monopoly in test distribution is unacceptable, as this leads to bad service and exorbitant prices.

There is also a need for a wider range of instruments measuring the same constructs. More tests have to be developed in South Africa that is appropriate for our multi-lingual, multi-cultural society in rapid transition.

Competition between test developers have a negative consequence because it:

“... prohibits doing joint validity studies and thorough theoretical research. Because we all come from our own point of reference and I think it creates a bad image of the industry with the users.” Participant, Test Development

Participants complain that the distribution of tests has become too decentralised. It is very difficult to gather information on the range of tests available in South Africa, and the process is not customer-focussed. It is also difficult to get objective information on the strengths and weaknesses of tests from the developers themselves. There is tension between the need for centralised information on the one hand, and concerns that centralisation might lead to a monopolistic situation in the test development market. Although the participants are critical over the fragmentation of the test

development service, they feel that competition and clearly demarcated products results in higher quality and lower prices.

**Theme 7: Official policy regarding psychological testing**

Most institutions have official policies in place governing the use of psychological instruments in the organisation. These policies are based on the ethical code as prescribed by the HPCSA and comply with legislation in terms of the Employment Equity Act. In most cases, the policy has been developed, but has not been implemented widely. There are no strategies or measures available to enforce implementation. The policy ensures that the users are aware of their responsibility towards ethical application and utilisation of tests results – it also increases a sense of ownership in terms of the administrator.

In general the policies cover the following areas:

**Table 6: Official policy regarding use of psychological test**

<b>Areas of interest</b>	<b>Description</b>
<b>Rational for usage of tests</b>	<ul style="list-style-type: none"> <li>• Justify the use of tests in a specified context</li> <li>• Explain and prove the relevance of using psychological tests. Doing a job analysis and compiling a profile that links with the job requirements can avoid irrelevant testing.</li> <li>• Specify the target population for testing</li> <li>• The instrument must have a clear demonstrable relation to the work behaviour that they are intended to describe or predict.</li> </ul>
<b>Psychometric properties</b>	<ul style="list-style-type: none"> <li>• Instruments must be constantly monitored and improved in terms of reliability, validity and fairness</li> <li>• If impossible to apply a test without any bias, the test should be then used in a responsible manner</li> </ul>
<b>Procedures</b>	<ul style="list-style-type: none"> <li>• Minimise unfair discrimination and strive towards equitable use</li> <li>• Cultural relevance and adaptation should be addressed. In most cases South African tests are used, or norming is done for a South African context.</li> <li>• Specify which tests and measures are appropriate and acceptable</li> <li>• Systems have to be in place to promote equitable use of tests</li> </ul>
<b>Storage</b>	<ul style="list-style-type: none"> <li>• Test material and results should be stored in a safe place</li> </ul>
<b>Rights of testees</b>	<ul style="list-style-type: none"> <li>• Address rights such as equitable and unfair treatment in terms of the application of tests</li> <li>• Right of the testee to feedback, provide by a suitably trained person (a qualified psychologist)</li> </ul>
<b>Application of test</b>	<ul style="list-style-type: none"> <li>• Test results is an additional source of information</li> </ul>



Areas of interest	Description
results	and should not be used in isolation
Access	<ul style="list-style-type: none"> <li>• State who are allowed to use it e.g. qualified psychologists and psychometrists under the supervision of a psychologists</li> <li>• State who has access to the results</li> <li>• Results and reports are treated as highly confidential</li> </ul>

**Theme 8: Existing tests**

Very little information was gathered around requirements of test users for the adaptation of existing tests. It is possible that the participants don't give the adaptation of existing tests enough thought in their ordinary day-to-day functioning. Users might not be aware of how the limitations of existing tests can be addressed, or they might be content with the tests they are using. Very little adaptation is done in organisations, and this is a gap that could be researched further. The participants' views cover two broad areas: underlying principles of test usage (cross-cultural validity and reliability) and practical limitations (time constraints and limited funding). This has to be taken into consideration when adapting existing tests in future.

In a business context proving predictive validity is of utmost importance. A test will only be used if it successfully predicts success in the job.

- Further research in areas such as cross-cultural applicability, influence of educational and socio-economic status on results and adaptation of language should be done. This implies complicated, time consuming research:

“ ... with all tests you have to do continuous research, the same for local and international tests. But to develop a test is a long process. Our dilemma is that our cross-cultural situation is so different from other countries, that basic matters such as language cannot be addressed easily. So the changes required will be radical and you will have to standardise the things again to ensure that it still does what it is supposed to.” Participant, Public Service

- The test manual should be explicit in defining the context, rationale, target group and applicability of the particular test. The norms should reflect our multi-lingual, multi-cultural society in rapid transition.
- In many cases the decision of which tests to house, has to be clarified in-house. This decision is influenced by personal preferences of users.

The participants made some suggestions regarding the adaptation of existing tests:

- Existing interest inventories should be reviewed every five years to keep pace with the changing world of work.

- Language issues have to be addressed, especially when doing personality and cognitive assessment.
- Psychological tests should be based on NQF levels and should taken into account qualifications not formally obtained.
- Although there is still a need for paper and pencil tests, computer-based testing has many advantages. There is a need for sophisticated technology and the software has to be network compatible and user-friendly.
- The practitioner should make a responsible decision with regard to the norms of the test. This is of special importance when using international tests.

“ ... the norms again may be an issue. We have international standards and there is the South African standard. We should have access to both standards and you decide, are we a global company or are we inwardly focused. Which ones do we use?” Participant, Services

- There is a view that in some instances existing tests should not be adapted, but new tests should be developed from scratch. Attention should be given to item format, construct validity, relevance of content and appropriate use of language within the South African context. It is believed that some personality measures, such as the 16 PF, can never be adequately adapted for South Africa.
- Participants feel comfortable using international tests, as long as it has been standardised for use in South Africa. International norms are important when a candidate has to be compared against a global standard, but situation-specific norms in the South African context are also meaningful. International tests have to be supported by local, empirical information.

### ***Theme 9: Needs framework and the future of psychological test usage in South Africa***

In terms of the development of new instruments, the participants require all instruments to meet the following criteria: predictive validity, cross-cultural fairness, relevance and reliability. The market would welcome tests developed in South Africa. Psychological assessment will be an acceptable practice if it meets the following criteria:

“ As a trade union we say it must be fair regarding our members and equal. It has to be transparent. And the moment we see it is not equal transparent and fair, we have a problem.” Participant, Labour union

### *New tests*

Data gathered in the survey indicated that practitioners from all registration categories (n= 881) would like instruments to be developed to assess the following aspects of human functioning:

**Table 7: Aspects of human functioning that practitioners would like to assess.**

Additional constructs requiring coverage	Frequency	Percentage of cases
Scholastic test	26	13.9
Emotional IQ	16	8.6
ADHD in children	12	6.4
Child anxiety, depression	12	6.4
Child custody – parenting style	9	4.8
Depression	8	4.3
IQ cross cultural	8	4.3
Integrity	8	4.3
Neuropsychological	8	4.3
School readiness	7	3.7
Post traumatic stress disorder	7	3.7
Psychopathology	6	3.2
Learning potential (cross cultural)	6	3.2
Anxiety in adults	6	3.2
Aptitude/ potential	6	3.2

Specifically, organisational tests should be more practical and should focus on the actual work situation. There is a need for the development of work samples, role play and assessment centres that is stream-lined and cost-effective. The tests should have proven predictive validity.

“... where you place someone in a simulation situation, where you simulate the work he will have to do. That is for me the future of psychological testing. Because it is not based on prediction, but on real life current situation and behaviour. That situation will definitely predict the behaviour it is simulating.” Participant, Public

During the interviews respondents identified the following areas in which new tests can be developed:

- Identifying potential and developmental areas in people with lower and high educational qualifications
- Measuring cognitive potential with non-verbal instruments
- Leadership in the South African context
- Emotional intelligence
- Integrity
- Language skills assessments
- Pre-selection screening test to indicate whether further in-depth testing is required
- Team performance
- Stress tolerance

- Updated interest inventory reflecting new area of work
- Personality test for people with low literacy
- Addressing needs of illiterate adults and unemployed youth

When developing tests, the practical limitations of the South African context should be taken into consideration. There are many underprivileged people who don't have access to water and electricity and many areas are isolated. Testing will be more difficult due to these constraints.

***Theme 10: Quality assurance of tests and test practices***

The participants feel that currently there is very limited control and governance over the quality of tests and testing practices. They are sceptical about the ability of the HPCSA to monitor the implementation of policies and guidelines. Currently the HPCSA can only intervene when a formal complaint has been laid. Colleagues are resistant to report one another. Malpractice and unethical usage of tests are not being monitored. Currently the individual's integrity and training alone assures the ethical use of psychological tests.

There is a mechanism for the classification of tests in place, but this process is viewed as confusing and not transparent. Participants are also unclear about certain definitions in the classification of tests. There is no provision in the guidelines of psychological assessment for testing in a HR capacity.

"it is difficult to even find a person responsible in setting out the guidelines, but there is no active energy in the ball game. It is like: if they do or don't, who cares. South Africa has the most regulated test environment in the world, but in practise it is difficult to implement."  
Participant, Social Services

Participants feel that the HPCSA does not take a proactive approach in promoting and growing the field of psychometrics and providing protection and support to its members. It is stated that South Africa has wonderful talent in psychological assessment, but issues such as in-fighting and bad leadership hinder governing bodies like the Professional Board of Psychology and PSySSA. Participants feel that visionary, strategic leadership can rectify this.

Participants employ measures in their institutions to ensure the ethical use of tests. This can take the form of Custodianships or Best Practice Centres. The members of these structures have regular meetings and set measures in place to ensure that tests are applied in a fair and responsible manner.

Participants propose the establishment of a Centre for Excellence that will be an encompassing monitoring and advisory body. The centre should consist of a combination of various experts in the field, which includes test developers, representatives from the HPCSA and Department of Education, test developers, industry and academic. It should not only provide guidelines, but should have the ability to prosecute transgressions. There should be a direct link between this centre and the Psychometrics committee of the HPCSA, which will give it regulatory powers. Of utmost importance is the independence of this body, and it therefore should not employ people with a vested interest in particular tests. A monopoly of test development should be avoided. The Centre for Excellence should receive money from government, as well as a subsidy from the HPCSA. It should be service-driven but not commercially oriented.

This centre should not only focus on test development, but should market and promote the use of psychological tests. The function of the information centre is described as:

"They have to set guidelines and requirements, and they have to evaluate test material to see whether the tests meet the standards. At the same time they should be a support service for when the tests don't meet the criteria to give advice in terms of adapting or further research to prove that the test does meet the requirements." Participant, Public Service

The centre should be involved in the management of quality control, but should also be involved in independent research and evaluation of existing tests. Tests can be graded according to a star system. This will make it unnecessary to outlaw and police the use of certain instruments, as users will automatically prefer to utilise tests with a higher grade.

The Centre for Excellence will have the following functions:

**Table 8: Function of a Centre for Excellence**

<b>Function</b>	<b>Description of function</b>
Setting guidelines	In terms of registration and classification of psychological tests In terms of responsible and ethical test usage Addressing issues around test development Setting exam for practitioners, together with the Professional Board
Monitoring and coordination	Monitoring implementation of tests in practice Audit test users on a regular basis

Function	Description of function
	Registration of all tests and test users Prosecuting malpractice Protecting the public
Research	Evaluation and classification of existing psychological tests Developing a database of information on existing tests (including the information provided to the Psychometrics Committee in the earlier registration process of psychological tests) Provide test developers with advice on how to prepare their test for successful registration with HPCSA in terms of outstanding information and sound research practice. Understand cross-cultural dimensions relevant in psychological testing
Expert advisory capacity	Provide users with information on existing tests and making expert recommendations in the use of tests for specific purposes. Presenting training in the ethical use of psychological tests

**Theme 11: Central test agency**

When the practitioners were asked the question “Should there be a central agency developing and standardising psychological tests in South Africa?” in the survey, 89% of the practitioners answered affirmatively. The duties and functions of this agency would include developing psychological tests. The agency should have Continuous Professional Development (CPD) courses so that practitioners could keep abreast with psychometric knowledge.

This high percentage is not reflected in the findings from the interviews. One possible explanation could be that the survey respondents misunderstood the structure and function of the central test Agency as described in the questionnaire. When interview participants were probed on this, it became clear that they confused the role of a Central test Agency with the aims and purpose of a Centre for Excellence.

When addressing this matter in the interviews, there was a mixed response on the viability of a central test agency in South Africa. Some participants feel that such an agency is valuable in ensuring the development and improvement of tests of national interest. This agency should not be run by one entity, but should be a collaboration of different stakeholders with training in Psychology from various disciplines. These tests can be developed with state funding and will serve a national purpose. In this case, the tests have to be accessible and cost-effective and will be used primarily by government, i.e. Department of Labour and Education.

The main function of this organisation will be to develop tests that meet a national need, i.e. not tests for a minority group of people. It should be governed by a national strategy and research can focus on national, large-scale, multi-year projects, like the development of standardised instruments for school-leavers or scholastic assessment. The test agency can also be responsible for distributing money and outsourcing research on assessment related matters to other stakeholders.

Other participants see the existence of many decentralised test developers and distributors as positive, as it encourages competition and ensures that prices stay reasonable, while the quality of the products improve. The notion of a centralised testing agency, functioning on a government subsidy was criticised. The fear is that when government subsidises test development, the central test agency will have to develop tests that suit the government's agenda, without looking at the broader range of needs in the country.

"It can't be a governmental institution or subsidised by government, because then it loses all its credibility."  
Participant, Labour Union

## **Conclusion**

The starting point in further research should be clarifying what is meant by "psychological test". There is uncertainty about what constitutes a psychological test and the difference between a psychological test and a competency-based assessment. The term should be clearly defined in terms of criteria like psychometric properties and applicability.

It is not proposed that this research has provided an adequate overview of tests currently in use in South Africa. It is suggested that a database of all tests classified according to purpose should be compiled. This requires in-depth research on tests used in South Africa, which should not be limited to the tests registered with the HPCSA. The research already done in the survey as part of the needs analysis will inform this process. This information should be easily accessible and updated regularly. The information should be made available to all practitioners in an electronic format, i.e. internet.

It is important that industry and test users take an active part in the governing and quality assurance of psychological tests. Industry should be made aware of the importance of using sound instruments applied by suitably trained and qualified

administrators. Specifically, a need was highlighted for the quality assurance of tests and improved involvement by professional bodies and institutions like PsySSA and HPCSA in regulating quality test use.

Lingering negative perceptions around psychological testing should be addressed. This can only be achieved if a relationship of mutual responsibility and benefit is fostered between government, unions, test developers and test users. This necessitates should be stronger cooperation between different stakeholders.



### **List of references**

Kaufman, R. (1982). *Identifying and solving problems: a Systems approach*. 3rd Edition. San Diego: University Associates.