

Suitability of Psychological Tests Currently Being Used By the Schools Psychological and Special Needs Education (SPS and SNE) Division in Zimbabwe

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Abstract : *The study looked at the suitability of psychological tests currently being used in Zimbabwe by the Schools Psychological Services. The study was quantitative in which the descriptive survey and case study designs were used. Data was collected using Interviews with Key personnel and from questionnaires. The target population were SPS/SNE personnel working in the division. The study found out that the current tests like WPPSI/WISC-R, WRAT, Schonnel that are used by SPS and SNE were not modelled within the confines of the Zimbabwean culture, traditions and values. Not all the key components found in these tests were a true reflection of the current situation and environment in which the Zimbabwean children existed. Since, the tests were Eurocentric most of the elements were discriminating to the Zimbabwean children. The study found out that these psychological tests used did not give the SPS and SNE personnel the true reflection of what the child's problems were. The study found out that the Eurocentric tests were not specific in measuring children's challenges, they were so generalised in the traits that they measured. As a result of these inadequacies of these tests (Eurocentric) this prompted the researchers to recommend to the educational system in Zimbabwe to come up with more appropriate tests that would be suitable to the Zimbabwean learner.*

Keywords: *education, learning difficulties, psychometric, test.*

I. Introduction.

Psychological tests help educationists to come up with concrete findings that enabled them plan viable educational programmes. This research aimed at reviewing and developing of psychological tests in a way that would promote SPS/SNE division service delivery. The psychological tests to be developed would cover all aspects of childhood development to adolescence. The aim of the research was to come up with psychological tests that would improve the education system of Zimbabwe.

1.2 Background study.

The use of Psychological tests in Zimbabwe has got its history dated back to soon after independence. The standardised version of Eurocentric Psychological test are currently widely used in Zimbabwe. The tests have helped Educational Psychologist and Remedial Tutors carry out intelligence, attainment and diagnostic testing to all learners who presented problems in academic learning and functioning. This has helped the division have a general understanding and insight to some of the causes and types of learning difficulties children would be experiencing. However, most of these tests had been developed in western countries for example WPPSI, WISC-R, Stanford - Binet, Schonnel, Daniels and Diack only to mention a few. Hence, many challenges are being faced by the division in administering; scoring and interpretation of the items. Because some of the items found in the tests like wording and practical performance do not suit the explorations and experience most of the Zimbabwean children grew up in. This therefore, means test development in Zimbabwe should be developed and, reviewed so as to come up with more practical and suitable tests that are user friendly to the education system.

1.3 Importance of the study.

- a) The research on psychological tests aimed at helping the SPS/SNE department come up with suitable tests that could be used to help them assess and make proper recommendations on all learners encountering challenges within the education.
- b) This study aimed at replacing and repealing some of the western developed tests that were not applicable to children in Zimbabwe.
- c) Through this research different psychological tests that are suitable to each child's challenges and diverse learning abilities are going to be developed and the issue of generalised children's challenges will be minimised.

- d) The research will also help the Psychologist increase their cognitive understanding and assessment of children with challenges and learning difficulties.

The study is going to enhance test development due to the practicability reflection of the environment and childhood explorations and experiences.

1.4 Research questions

- 1) What are the psychological tests that are currently being used in the Ministry of Primary and Secondary Education in Zimbabwe?
- 2) What are the challenges faced by SPS and SNE division in using the current psychological tests?
- 3) Which items should be included when developing psychological test for children with
 - Behavioural problems
 - Learning disabilities
 - Health problems that ranges from physical, mental and behavioural
 - Intellectual challenges
 - Gifted and talented children
 - Child abuse
- 4) Which are the most appropriate tests to be used in the Zimbabwean context?

II. Review Of Related Literature

2.1 The types of Psychological tests that are currently being used in Zimbabwe.

According to Foxcroft (2002) Psychometric testing is a westernized activity that was transported to Africa. Psychological testing was brought to Africa in the colonial era, and is not something that is indigenous to Africa. According to Mpofu et al (1988) psychometric testing practices in Zimbabwe were done in terms of the colonial heritage of the country and the democratisation of the education system following independence in 1980. The current status of psychometric testing in Zimbabwe entails the application of Western concepts and technologies.

A survey of 120 test users carried out in Zimbabwean educational settings by Mpofu et al (1988) revealed a significant use of western tests. The types of tests used in Zimbabwe included WRAT, WISC-R, WPPSI, and Rothwell Western Miller Interest Blank. Achievement tests include Daniels and Diack Spelling and Comprehension. BAS, Schannel spelling, Graded Word Reading test. All these tests have been developed in the United States (US), United Kingdom (UK), or Europe. It is in the opinion of the researchers that these tests cannot simply be applied to people from other cultural backgrounds without investigating the possibility of test bias and without strong consideration being given to adapting and re-norming them to the Zimbabwean context.

2.2 Challenges faced in using the current psychometric tests found in the SPS/SNE department in Zimbabwe

Given differing levels of literacy and education, 'taking a test' is not something that is necessarily within the everyday experience world of many people in Africa. Nell (1997) pointed out that the extent to which a test-taker is testwise has a significant impact on test performance. Psychometric tests are a terrible way of placement of children (Nell 1997). The only reason scientists still use tests e.g. IQ tests is for compatibility with existing findings and because no one can be bothered to come up with an alternative given the funding available. According to Mpofu et al (1988) regulations for psychological practice and western-oriented psychology curricula inherited from the colonial era necessitated continuity in the Zimbabwe's psycho educational testing practices. The demands of the post independence education dispensation that extended psychological services to native Blacks represent elements of change that challenge psychological and educational testing in the country to be more responsive to the cultural diversity.

Tests used in Zimbabwe are Eurocentric (Mpofu et al 1988). Zimbabweans live differently and have different forms of intelligence. Also there may be problems with translating the concepts to a form children in Zimbabwean culture would understand. The concept of language and content of the test would also make Eurocentric tests problematic for the Zimbabwean setting. For example starving children in Zimbabwe would not appreciate rotating polygons when they have more crucial issues occupying their minds.

The concept of a formalised test is probably alien to many people around the world. Studies on IQ tests are controversial and frowned upon due to what they show but they are not discredited. Studies in North America on African-Americans born post civil rights movement have still shown lower IQs despite the environment improving and almost the same with that of the white Americans. Though Black Americans now have the same public schooling facilities and welfare that are available to all Americans from all races, they still under perform. **Studies by have also shown that Lack of skilled and qualified testers may add more chaos than**

simplifying the testing work. This results into incomplete, insufficient and ad-hoc testing and wrong placement of students.

According to Miles 1997, Mpfu et al 1988, Foxcroft 2002, psychological tests are always closely linked to the context in which they were designed. Psychological tests were designed in a specific society and culture and for a specific purpose. The way in which the test performance would be interpreted would be linked to the behavioral criteria, norms, or cut-scores developed in the context where this test was developed (Foxcroft 2002).

2.3 Items that should be included when developing psychometric test for children with specific impairments.

2.3.1 Physical Problems and their Impact on Test Interpretation

People with impairments form a significant percentage in Zimbabwe and the majority do not have access to adequate education since the society disables them (Chataika et al 2012). The impact of the impairment on the test-taker on test performance during the interpretation phase should not be overlooked. For example some impairment negatively affects the attention span and speed of information processing and responding, and school performance in general. The more knowledge the assessment practitioner has of the environment in which the test-taker lives and works, and of the test-takers physical status, the greater the possibility that this knowledge and information can be factored in during test interpretation.

Tests developed for use in multicultural contexts would have to include items and tap constructs common to all the cultures in which it is to be used. A survey of 120 test users carried out in Zimbabwean educational settings by Mpfu et al (1988) revealed a significant use of Western tests, and some limited progress in developing local tests, particularly in the area of achievement testing. Authentic testing has great potential as an alternative in this developing country (Mpfu et al 1988).

The ITC Guidelines indicate that the goal of testing practices will be attained by practitioners who have the necessary competencies, spanning the entire process of testing; a sound knowledge of psychometrics and testing; and an understanding of the broader social, cultural, political, and legal context in which testing is used and the manner in which such factors might affect test results, their interpretation, and the use to which they are put (ITC 2001).

Korman in Foxcroft (2002) asserted that the provision of professional services to persons of culturally diverse backgrounds by persons not competent in understanding and providing professional services to such groups shall be considered unethical. The core ethical consideration facing those who conduct psychological testing in the culturally and linguistically diverse Zimbabwe should relate to how best to cater for the diversity so as to be sensitive to test-takers' cultural backgrounds and values during the test selection, administration, interpretation and reporting phases of the testing process.

2.4 Suitability of Psychological Test for Special needs Children in Zimbabwe.

According to Nell (2000) education and industrialisation were found to be as the most important factors influencing performance in intelligent testing.

Grieve and Eeden (2005) wrote:

It is anticipated that, just as the U.S. norm tables were found to be suitable for use in the UK, the performance of urbanised Afrikaans speakers who received a reasonably good quality of education would be similar to that of similar groups tested with the English version if the former are tested in their home language.

A study in USA using WISC-R USA on a standardisation sample of 2 200 children between the ages of 6 and 16, 11 months and another in the UK which consisted 780 children included a special group of:

- children identified as gifted
- mild or moderate mental challenges
- learning difficulties
- children ADHD
- children with expressive and mixed receptive and expressive disorders
- children with autistic problems
- children with Asperger's syndrome
- children with open or closed head injury and those with motor impairment

Findings from the research that was done were as follows:

- a) WISC-R was not seen as an effective way to diagnose ADHD or learning disabilities. According to the study diagnoses of any childhood or adult difficulty should never be made based on IQ alone, interview, physical examination and parent report, the cognitive ability test can help rule out in conjunction with other tests and sources of information, other explanation for problems, uncover co-morbid problems and be rich

source of information when properly analysed and care is taken to avoid relying simply on single summary IQ score (Scattler,2008)

The empirical consensus is that the WISC-R is best used as a tool to evaluate intelligence and not to diagnose ADHD or learning disabled children .It can be used to show discrepancies between a child's intelligence and his/her performance at school and it is discrepancy that school psychologist look for when using this test.

Grieve (2005) reported that early comparative studies on the performance of white English and Afrikaans speaking South Africans on intelligence tests revealed that the performance of Afrikaans speakers was poorer and this was ascribed to their relative educational and socioeconomic disadvantage at the time .

2.5 Most appropriate tests to be used in the Zimbabwean context

Foxcroft, Roodt, & Abrahams, (2001) highlighted that during psychological assessment the practitioner's core ethical responsibility was not to harm the client. The same authors also noted that the relationship between the assessment practitioner and the test-taker represented a power relationship, in which the practitioner held most of the power, which left the client in a vulnerable position (Foxcroft, Roodt, & Abrahams, 2001). Because of this imbalance in power, the assessment practitioner should ensure that the test-taker does not perceive the testing process and its outcome as being negative and disempowering because of unfair or unethical testing practices.

The International Guidelines for test use developed by the International Test Commission highlights the key ethical testing practices that assessment practitioners should follow (ITC; 2001). According to the ITC Guidelines, ethical testing and assessment practices require that the assessment practitioner " will use tests appropriately, professionally, and in an ethical manner, paying due regard for the needs and rights of those involved in the testing process, and the broader context in which the testing takes place" (www.intestcom.org).

Research design

The study was quantitative and the descriptive survey method of research in which through the questionnaire, structured and semi structured in depth interviews the respondents were asked to provide information on psychometric tests was used. The hallmark of the descriptive survey method is its strength as a tool for investigating the present status of phenomena (Dempsey and Dempsey 1996).The design was therefore relevant to the mode of study. The purpose of the descriptive survey was to use questionnaires or interviews to collect data from respondents in a sample about their characteristics, experiences and opinions in order to generalize the findings of the population.

Population and Sampling

The study used educational psychologists, remedial tutors and special education teachers in Zimbabwe.

Sampling Procedure.

Purposive sampling was used to select the educational psychologists and remedial tutors. Purposive sampling afforded the researcher to find credible and rich information (Denzin and Lincoln 1994). Though it did not achieve population validity it achieved an in depth understanding of the selected group of individuals. Purposive sampling thus enabled the researchers to develop a deeper understanding of the phenomena studied.

Sample size

Ten educational psychologists in the 10 Zimbabwean provinces and 30 purposively selected remedial tutors from the 10 provinces were used.

Data Collection Method

In keeping with ethical considerations in research the purpose of conducting the study was explained during the first visit to the psychologists. Appointments were done by phoning the respective schools. Questionnaires were answered only after the respondents agreed following rapport building and soliciting their cooperation. Questions were answered on locations decided by respondents.

Data Collection

The instrument that was used was a questionnaire and interview guides. The questionnaire was pilot tested in one Region and relevant amendments made.

Research Procedure

Data collection took three months. Permission was obtained from the relevant ministry and local school authorities. The main aims and objectives of the study were explained and terms in the questionnaire were explained.

Data Analysis.

When all the data was collected, immersion in the data was done. This helped in gaining insight into the respondents’ perceptions and ensured rigour of the findings. The data was broken down into segments; the researcher looked for meaning units and themes in the sequents; the meaning units and themes were compared across other studies.

Reliability and validity

Rarely is a measuring instrument perfectly reliable (Dempsey and Dempsey 1996). This is due to improper directions on the instrument, poorly constructed items, or characteristic of the individuals responding to the instrument. The instrument of this study was pretested in one province .Loser reliability standards to the questionnaire were applied since the researcher was collecting information that was highly structured and likely to be valid. Validity refers to the extent to which the research findings represent reliability (Burns and Grove 1996). The information gathered was thoroughly checked to determine whether it made sense when compared to other information from previous studies. Since some sections of the instrument had been self developed by the researcher, they were pre-tested. Analysis procedures and outcomes were shared with psychologists, remedial tutors and academicians. Interest of the researchers was the average response of the groups rather than the response of an individual. A lower level of item reliability was acceptable when the data was analysed and reported at the group level than at the level of individual respondents (Gall, Borg and Gall 1996).

III. Results And Discussion

3.1 Psychometric tests used in Zimbabwe.

Fig 4.1

Test	Local	Foreign
WRAT 1 and II,		X
WPPSI,		X
WISC-R and Rothwell		X
Western Miller Interest Blank		X
Daniels and Diack Spelling and Comprehension		X
Good enough		X
ADLO		X
BAS		X
Schonnel spelling		X
Graded Word Reading test	x	
English 4 test	x	
Shona 4 test	x	
Maths 4 test	x	

Fig 3.1 above shows the tests being used in Zimbabwe.

3.2Challenges faced in implementing psychological tests in Zimbabwe.

The following were found to be the challenges in implementing psychometric testing in Zimbabwe:

- Obtaining informed consent when children were to be tested;
- Using test rooms made the test session anxiety provoking;
- negative perception of psychological testing;
- Appointment dates that suit the psychologist.
- Language
- lack of test-wisness
- In experience by the testers
- Tests not being understood by the test takers.
- Lack of specific tests for different traits to be measured

3.3 What should be considered before administering a psychometric test?

All the psychologists and remedial tutors noted that to perform an assessment in a valid, ethical and fair way in the Zimbabwean context it was important for the testers to acquire the knowledge of the test-taker in relation to his or her cultural, family, linguistic, educational and socio-economic background and heritage.

In the study it was noted that 80% of the psychologists agreed that pre knowledge about the culture, educational history, economic status and language should be acquired before one decided towards implementing psychological testing. However the selection of an appropriate test was a challenge as tests used by the department were Eurocentric and predetermined. Whilst the entire psychologist agreed that it was only after they were familiar and knowledgeable about the culture, language, educational and economic background that the test should be administered, they highlighted that the choice of an appropriate tests to use was limited. Tests were regulated and the top down approach was used to implement psychometric testing in SPS and SNE.

The findings from this study concur with studies on ethical issues related to psychological testing in Africa: what I have learned (so far) done by Foxcroft (2002) who pointed out that psychologists should never presume that you know how best to assess some aspect of human or cognitive functioning, or how to interpret test performance without first having immersing yourself in the lived world of the test-taker. Ferguson and Grieve (2005) also highlighted that in intelligence testing and when translating from one language to another the words in tests are translated without any investigation into the difficulty equivalence of the words.

As alluded to by Ferguson and Grieve in 2005 the sociocultural background plays an important role in what students learn and when they will learn. All the respondents in the study agreed to the fact that school experience and context learnt were important determinants of performance of a given task in an intelligent test. Foxcroft (2002) implied that psychologists should adopt an emic approach in which human behaviour should be examined using criteria related to a specific culture as opposed to examining using behavioral criteria that are presumed to be universal approach. The variables like language proficiency, culture, education, socio economic status home environment, urbanisation and test wiseness all should be taken into account on psychological testing (Grieve 2005).

3.4 Appropriate tests to be used in the Zimbabwean context.

The study noted that 90% of the Psychologists agreed that appropriate Psychological tests in Zimbabwe should be constructed with the following factors in mind;

- Using appropriate norms;
- Construct equivalence;
- Familiarity with the laws governing testing;
- The test content or tasks need to be culture-appropriate;
- Speed tests;
- Power tests;
- Clarity of instructions and use of practice examples;
- Personnel involved;
- Different traits to be measured;
- Age appropriate.

IV. Conclusion

The results obtained from this study suggest changes in terms of psychometric testing in Zimbabwe. There is evidence that tests should take into consideration factors like impairments, language, culture, age, personality, education, socio economic status, urbanisation, test wiseness and home environment. This study contributes information on individual psychological intelligence testing structure.

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