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The place of Psychological Testing in Educational System in Nigeria

Ngban, Anthony Ntol Ph.D anthonyngban14@gmail.com	A	Department of Educational Foundations University of Calabar, Calabar
Bekomson, Achi Ndifon Ph.D achindifon@gmail.com	C	Department of Educational Foundations University of Calabar, Calabar
Isogon, Mercy Praise mercypraise40@gmail.com	B	Department of Educational Foundations University of Calabar, Calabar

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Correspondence
anthonyngban14@gmail.com

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Abstract

This paper which is purely theoretical focused on the place of psychological testing in educational system in Nigeria. Test and testing have no doubt remained a focal point in the educational process of pupils and students alike but the rising anxiety and fear for testing by pupils and students makes this paper very apt and worthwhile. Accordingly, this paper covers the meaning of test, what is a psychological test, what is psychological testing and purpose of psychological testing in our educational system. Furthermore, some shortcomings of psychological testing were also x-rayed, implications for learning presented, some recommendations made and it was concluded that psychological testing occupies a very significant place in the educational system of Nigeria.

Introduction

Testing has come to have an important influence on the lives and future careers of Nigerian students. Considering the many functions of testing, it is not surprising therefore, that psychological testing has become a big business. Tests and examinations are standard evaluative and assessment tools used for measuring a testee's knowledge, aptitude, skills and abilities irrespective of age. In this conscious age, the lives of many are not only greatly influenced but are also determined by their test performance.

Of course, it is true that because most psychological characteristics such as personality traits, creativity, aptitude, intelligent quotient, social intelligence, etc are not immediately accessible, hence scientific analysis in this regards is unclear. Therefore, psychologists employ several tools/tests to collect data and information to overcome these concerns. Come to think of it, the

scope of psychological tests is very wide consisting of verbal, behavioural and psychologically assessments. Thus in this regard, a well-structured and standardized tool is required in describing, comprehending and predicting an individual's behaviour in psychological studies. This tool is psychological test.

Generally speaking, tests result in generating pieces of information which would guide the person administering the test to arrive at an informed decision. According to the Institute of Medicine (IOM, 2015), tests serve a major function in the measurement of differences between individuals or between the reactions of some individuals on different occasions. That is, a test represents a piece of information based upon a minute sample of behaviour that at best provides direction for further exploration. The procedure of testing exposes the individual to a particular set of questions in order to obtain a score which helps the examiner to make a decision. Hence, it is pertinent to focus on the place of psychological testing in our educational system.

Interestingly, as far as this paper is concerned, an attempt is made to focus on concepts clarification of test, psychological test and psychological testing. Secondly, the purpose of psychological testing is discussed under four major headings, then the shortcomings and implications for learning, finally some recommendations are made which when implemented would help change the present situation for the better.

Concept clarification

Test:

A test is generally a set of questions, problems, puzzles, symbols and exercises used to determine a person's ability, aptitude, knowledge, gratification, interest and level of social adjustment. Shultz and Schultz (2015) looked at test as a means of sampling an individual's behaviour in such a way that generalization about his total behaviour can be made. For Cronbach (2017) a test is a systematic procedure for observing a person's behaviour and describing it with the aid of a numerical scale or a categorical system. Sherter and Linden (2019) on their part maintained that the principal vehicle for conducting an assessment of human behaviour is a test. They opined that any test worthy of 'its name is a representative and relevant sample of some population of behaviour about which predictions may be made. A test to them is a plan blueprint or set of specifications for assessing a given behaviour, like plans used in constructing a building, a bridge and automobile or an aircraft.

In the opinion of Mindset Scholars Network (MSN, 2015), a test is a set of tasks or questions intended to elicit particular types of behaviours when presented under standardized conditions and is expected to yield scores that have desirable psychometric properties. In other words, testing is a way of exposing an individual to a particular set of questions aimed at obtaining a score which in turn would help in decision making process.

From the various definitions and other literature on tests, it is evident that a test is a conscious and systematic design to elicit a sample of a person's behaviour either psychometric or impressionistic. In essence a test is a collection of puzzles, questions, problems and exercises for the individual to respond to: his responses being very vital for appraising and comparing him in relation to others. Tests therefore form a variety of ways to gather information about the child in the school.

Psychological test:

Man by nature has different psychological characteristics which no doubt influence both teaching and learning outcomes. There is need for testing so as to determine the psychological characteristics that may in one way or the other influence students' behaviour and eventual learning outcomes in school. The tool readily available for this exercise is the psychological tests (Maliki, Ngban & Ibu, 2009).

Psychological test is simply a standardized test which elicits a sample of the subject's behaviour, which can be objectively scored and with standard of performance. Ndimele and Eremie (2019) see a psychological test as a well designed instrument which is used to measure psychological characteristics of an individual as well as his/her learning outcomes. In a similar vein Makinde (2018) defined a psychological test as a standardized or non-standardized measure of an individual's response to a systematic sample of traits or stimuli (questions and problems) from which inferences about general behaviour can be made after the necessary quantification. Monday (2016) on his part maintained that psychological test is a measuring instrument at the disposal of a teacher, counsellor or psychologist, just as a measuring tape is in the hands of a tailor or carpenter. To Anastasi and Urbina (2017), psychological test is essentially an objective and standardized measure of a sample of behaviour. To them, the diagnostic or predictive value of a psychological test depends on the degree to which it serves as an indicator of a relatively broad and significant area of behaviour. Aligning themselves with the above definitions, Adebule, Onijin and Akomolaje (2016) viewed psychological test as an instrument designed to measure unobserved constructs, also known as Latent Variables.

From the foregoing, a psychological test can be seen as an attempt to get complete and systematic samples of the individual’s behaviour (verbal, perceptual, motor, etc) through a standardized procedure. Generally, a psychological test has the following characteristics:

i) It is concerned with a sample of behaviour.
ii) It should have a uniform procedure for administration, scoring and with norms suitable for a given locality and purpose.
iii) There should be a series of tasks or questions graded in terms of item difficulty.
iv) It should be objective, that is, the acceptable response to an item must be independent of the opinion of the examiner.
v) The test has to be suitable to the age and range of ability or knowledge of the candidates.
vi) Validity, reliability and item difficulty level of the test should have been experimentally verified.

Indeed there are four (4) types of psychological tests. These are intelligence tests, aptitude tests, vocational tests and personality tests. Going by these four primary types of psychological tests it becomes absolutely necessary for psychological testing to assume a prime place in the educational system in Nigeria.

Psychological testing:

Psychological testing which is also called psychometrics is simply the administration of psychological test. Psychological tests are administered by trained evaluators, then a person's responses are evaluated according to carefully prescribed guidelines. Scores are thought to reflect individual or group differences in the construct the test purports to measure. Monday (2015) defines psychological testing as an instrument primarily used for psychological diagnosis, job screening, academic placement, identifying specific behaviour and for research purposes. Similarly Thorndike and Thorndike-Christ (2018), on their part defined psychological testing as the systematic use of test to qualify psychophysical behaviour, abilities, problems, and to make predictions about psychological performance.

Purpose of psychological testing in the schools system in Nigeria

Nigeria educational policy makers believe that since the rest of the education system is built upon the primary school, the primary school level is the key to the success or failure of the whole education system. On this note, the National Policy on Education (NPE, 2013) stated that the objectives of primary/elementary education in Nigeria include among others:

i. Character and moral training and the development of sound attitudes.
ii. Developing in the child the ability to adapt to his changing environment.
iii. Providing basic tools for further educational advancement including preparation for trade and craft of the locality. It went further to state the two broad aims of secondary education in Nigeria as:

a. Preparations for useful living within the society.
b. Preparation for higher education

Based on the foregoing, the purpose of psychological testing for schools could be seen as used for: evaluation, selection, prediction, classification, placement, administration, guidance and counselling and research. For this paper all these shall be subsumed under four major subheadings as summarized by Denga (2017) thus: instructional, guidance, administrative and research.

Instructional purpose:

Under this heading, the following activities take place:

i. **Evaluation:** Here psychological test provide the relevant data that would enable the educational administrators to determine the effectiveness of an educational programme or an instructional process so as to take appropriate decision on whether to discontinue or continue the educational programme or process.

ii. **Diagnosis of learning problems:** With psychological testing the teacher can easily detect the problems of the learners. Slow learners and learners with special needs can easily be given special or individualize attention. Diagnosis can be used to determine an individual learner's strengths and weaknesses for possible remedial measures.

iii. **Prediction:** With psychological testing students' future performance and behaviour in a given task or skill can easily be predicted by either the teachers, psychologists or administrators. For instance, it could easily be predicted that those who passed their common entrance examination with high scores will do better than those with low scores.

Administrative purpose:

Psychological testing here is administered for the under listed purposes:

i. **Selection:** Psychological testing assist educators in the selection of candidates for different educational programmes such as selection into universities by JAMB, Colleges of Education, Polytechnic and even in the primary and secondary schools. Selection could also be deployed in other areas such as the police, the military or paramilitary and civil service.

ii. **Classification:** Psychological testing enables the school administrators and teachers to classify students/pupils into different groups according to their interest, aptitude or ability. Here students are classified into arts or sciences based on their ability, interest or aptitude.

iii. **Placement:** Closely akin to classification is placement. Many parents, teachers and school administrator regard psychological testing in schools as an advantageous practice that supports children in achieving success in schools. If children have undiagnosed psychological, emotional or behavioural difficulties, psychological testing can detect these challenges and help schools place students in the best learning environment to meet their needs. Psychological testing can also be used to benefit kids with previously diagnosed conditions and to place them in classrooms where they can be challenged and motivated to grow both intellectually and personally.

iv. **Monitor progress:** Psychological testing in schools allows for curriculum-based measurement in which a student's academic is monitored from elementary school through secondary school. Tests outcomes are used to monitor the learning and decision-making abilities of a student in both general and special school education. Curriculum-based management helps estimate a student's improvement rate, identifies those who are dragging in progress and require alternative method of learning and it helps to design more effective individualized lessons for students with special challenges. By using psychological tests to monitor a student's progress, children are able to learn in ways apropos to their current conditions.

v. **Supports individualized lesson plans:** Psychological testing in schools can identify students with disabilities or delayed skills and determine the eligibility for receiving individualized lesson plans free of charge to families. The Individualized Education Programme, allows parents to work with educators to craft lesson plans that help the

child become successful in school. The student may also get a number of special support services, depending on the outcome of his psychological test. If a child's test determines that he is a visual learner with emotional problems for example, a specialized series of lesson plans can be applied to the child's education to make him more successful as he works through his challenges.

Guidance and counselling purpose:

The elementary school is the foundation upon which other levels of education stand, therefore if the guidance and counselling base is not strong at this level, the whole education system would be in danger of a helpless collapse. Also, there is a dire need of guidance and counselling services in secondary schools in order to realize the stated aims and objectives. Guidance helps in this direction to enable the students realize their potentials. To this end, psychological test does the following to fufil the aspect of guidance in elementary and secondary schools systems in Nigeria:

i) Measurement of occupational interest
ii) Measurement y educational interest
iii) Measurement of educational and occupational ability
iv) Assessment of personal-social problems, strength, weaknesses, temperament, emotions and personality.
v) Assessment of attitude for counselling purposes
vi) Assessment of aptitude and personality for counselling purposes.

All these help the students and pupils to realize their potentials and use them for self actualization and self-fulfillment.

Research purpose:

Denga (2017) observed that testing itself constitutes research. The administration of psychological tests in either elementary or secondary schools can no doubt reveal fertile areas of educational research. It is therefore possible that the purpose of administering psychological tests may simply be to expand the frontiers of knowledge. A good example of this kind of research will be an investigation of the influence of culture or environment on intelligence.

Research can also be conducted on the relationship between motivation and achievement at both the elementary and secondary schools level. In fact psychological tests are currently being employed in the re-solution of a wide range of practical problems.

Shortcomings of psychological testing

Below are some of the limitations of psychological tests:

i. **Lack of zero point:** A true zero point indicates that any other factor or trait is absent or null at that point. Whenever we measure or weigh anything we start measuring it from the zero value, say for instance 5 inches in length or 15kg of weight. In fact, in physical sciences, every measurement starts from zero, but psychological measurement lack the availability of zero point. For instance we cannot say that a particular person

has a zero value of intelligence quotient (IQ) so, to measure various psychological factors, psychologists arbitrarily assign certain points as zero points and measure various phenomena with respect to these arbitrarily assigned zero point.

ii. **The relative nature of psychological testing:** The scores we obtain through the psychological tests are not absolute, rather these are relative scores because we score various psychological attributes by comparing them with the other relative factors. However, relative scores do not tell the actual level of the specific factor in the subjects, Say A, B and C as first, second and third respectively on the boxes of the marks they obtained in the latest, the major problem of this ranking world be that the intelligence difference of the subject A and subject B may or may not be same to the intelligence difference of the subject B and subject C. Let's say, out of 200, the first rank holder (A) obtained a 140 IQ score, the second rank holder (B) obtained 130, and the third rank holder (C) obtained 90. Clearly the IQ score difference of subject A and B is much less than the subjects B and C. This shows that the subjects are not ranked according to their actual level of intelligence; in fact, they are ranked by the comparison method.

iii. **Lack of generalizability:** Another major problem with psychological testing is that they lack generalizability. Every psychological test is designed by keeping in mind certain factors related to a particular context or area. Therefore, before conducting any psychological test, it should be properly checked whether the particular test is generalizable or not because every single psychological test cannot be used universally.

iv. **Subjective interpretation of qualitative research data:** Psychological enquiry or test involves the collection of a vast amount of qualitative data, which includes feelings, behaviour, perception and other psychological factors of the subjects under study, and there is not any proper degree to measure these factors. Every psychologist interprets the research data in his/her own way. Therefore, there may exist differences in the results obtained by different psychologists about the same factor or event.

Implications for learning

From the preceding discussions, it can be observed that psychological testing has become an integral part of the school system and education process as a whole. Testing no doubt forms the fulcrum upon which teaching and learning depend. Without testing in schools the whole educational system would have collapsed. This is because there would be no basis admitting students in our schools since they cannot be promoted to the next class due to the absence of testing.

Also, since tests and examinations are the evaluative or assessment tools which are used to measuring the students knowledge, skills, aptitude and abilities, students are encouraged to learn so as to pass.

Furthermore, because some tests or assessments are administered without pre-information, students are encouraged to continually study and be attentive in class so as to safe themselves the painful embarrassment of failing.

Again, the presence of tests in our school system has in no small measure improved the study habits of our students. Students now form study/reading groups, debate societies, drama clubs and other academic oriented groups so as to enhance their learning abilities. It is also important to note that the presence of tests in our institutions simulate the enthusiasm of students to learn since they have to learn in order to pass tests.

Another thing that is worthwhile to mention is that students like to distinguish themselves in class and in this case, tests or examinations provide this opportunity. Students are therefore motivated to learn so as to excel in test or examination which by extension distinguishes them from other classmates. This of course gives them a sense of fulfilment.

Finally, because parents see success in tests or examinations as a justification for the school fees they pay and sometimes reward their children on the basis of this, students do not take this for granted. They on the strength of this, work hard to pass tests/examinations in order to satisfy both their parents and themselves.

Conclusion and recommendations

The place of psychological testing in the schools system in Nigeria was tremendously given due prominence. This is because the purpose for psychological testing such as: evaluation, diagnosis, prediction, selection, classification, placement, monitor progress, guidance and research have of course been the modus operandi of our present day school system. Some shortcomings of psychological testing were discussed and implications for learning were x-rayed.

In all, the major purpose of psychological testing, like all other types of assessments is to collect information on individuals that will assist them and those concerned about their development to make accurate decisions. These decisions may concern educational, vocational and personal-social issues. Therefore, the following recommendations are made:

i. Psychological test or testing should be administered in such a way that it should not increase anxiety for test or testing.
ii. In order to minimize bias and ensure the validity and reliability of tests, teachers should be trained and properly guided on the principles of psychological testing.
iii. To improve the reading programmes in our schools, a culture free intelligent quotient test that measures each child's innate potentials is needed.

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