(RESEARCH ARTICLE)

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Assessing the validity and reliability of standard examination as a yardstick for admission exercise in higher institutions of learning in Yobe State, Nigeria

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Abstract

The purpose of the study was to examine the academic performance of students admitted for the Nigeria Certificate in Education (NCE) program in colleges of education using Joint Admission and Matriculation Board (JAMB) West African Examinations Council ,(WAEC), National Examinations Council (NECO), and National Business and Technical Examinations Board (NABTEB) as the bases for direct entry admission exercise and compare with the academic performance of students admitted through college remedial exercise in order to ascertain the validity, reliability and usability of a standardized examination, if it is worthy of recommendation for placement evaluation in colleges of education and university system. Four different departments were selected at random, academic status of 284 students from the four departments were extracted and used for the study 116 students from first group being direct entry students and 168 students from the second group being Nigeria Certificate in Education (NCE) candidates. The mean Cummulative Grand Point Avarage (CGPA) of two groups were compared from the four departments, the results revealed that mean CGPA of the direct entry students falls between 2.0 and 2.5 in all the departments from NCE I to NCE III while that of the pre Nigeria Certificate in Education (NCE) students were between 2.45 and 3.0 at all levels for the four departments. This implies that students admitted through direct entry scores can be classified as third Class students (Merit) while those admitted through Pre- Nigeria Certificate in Education (pre- NCE) screening can be classified as Second Class Lower Division (Credit) students. The results reveal that standard test is not 100% worthy of consideration as the only criteria for admission into higher institutions of learning as it does not give us the best candidates for admission at most times.

Keywords: Standardized test; Examination; Placement evaluation for the Nigeria Certificate in Education (NCE) Joint Admission; Matriculation Board (JAMB) West African Examinations Council; (WAEC); National Examinations Council (NECO); National Business and Technical Examinations Board (NABTEB)

1. Introduction

A standardized test is any form of test that requires all test takers to answer the same question or a selection of questions from a common bank of question in the same way and that is scored in a standard or consistent manner which makes it possible to compare the relative performance of individual students or groups of students. But standardized test such as *West African Examinations Counci ,(WAEC), National Examinations Council (NECO), and National Business and Technical Examinations Board (NABTEB)*has consistently unveiled a significant number of weaknesses which question

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the validity and reliability of the test to be used as the only criteria for placement evaluation (admission of students). These weaknesses include.

- It stiffing creativity and imagination in the classroom
- It drives teachers away from the teaching profession even as teachers are forced to train candidates for standard examination only.
- It promotes cheating as the students feel passing a standard examination such as WAEC, NECO, NABTEB and JAMB is the only aim and objective of going through secondary education.
- It reduces critical thinking in the classroom as it tends to prepare candidates for memorization
- It does not accurately measure what students have learned because most emphasis in standardized examinations focused on cognitive domain.

Despite the weaknesses of the program for many years, the test has been in use as a criteria for placement evaluation in Nigerian colleges and universities but the impact is yet to be clearly seen as many students in colleges and universities who have successfully pass the test do not deliver well in higher levels while others who failed but have a good records in their continuous assessment continue to excel at different higher institutions of learning, this means that many applicants dropped down as a result of failure in standardized test while they can do better than those selected on its basis. It is important to note that this type of test is affected by factors such as anxiety, fatigue or simply unstable health status of an individual, environment etc. The weaknesses observable in standardized test have at all cost affected the validity and reliability of the test making the result invalid because it does not give the true knowledge and ability of the examinees logical reasoning, some examinees in such circumstances are favored by the environment enabling them to have an excellent result which qualifies them for admission in higher institution of learning but cannot replicate the performance in the colleges or the universities they find themselves. In the same vain some competent students are as well affected negatively by the environment through unsystematic errors encountered during the test which affects their performance and this made them not get good result that can qualify them for admission into higher institution, many of this kind of candidates end up discourage with whole process some of which later join ineffective business and all forms of youthful irregularities such as arm robbery and prostitution.

1.1. Statement of the Problem

Figure 1 Yobe State Map

In Nigeria, many secondary schools are being established in various places by government, private organizations or individuals in order to prepare students for the Senior Secondary Certificate Examination which will help them for

admission into higher institutions of learning. Teaching and learning are only centered towards preparing candidates for entrance examination i.e. standardized test [1]. Most teachers leave the actual aims and objectives of academic experiences and work towards preparing students for WAEC, NECO, NABTEB and JAMB. Standard test has become an encouraging factor for examination malpractice and only encourages cheating and memorization instead of developing logical thinking and skills for the betterment of life. This practice has contributed largely in producing school leavers with good results for admission.

Many schools today have made standardized test a basic tool for financial improvement and development, providing machineries that will either help or guide the students to pass WAEC, NECO, NABTEB and JAMB. This study intends to examine, among other things, the effectiveness of standardized test in comparison with Pre- NCE program in the placement of students in the Colleges of Education in Yobe State.

Aim and objectives of the study

The study is aimed at investigating the effectiveness of standardized test as a criterion for placement evaluation. Thus, this study is aimed at achieving the following objectives

- Examine the effectiveness of standardized test as a criterion for placement evaluation.
- Analyzed the implication of using standardized test for placement evaluation

1.2. Purpose of the Study

The purpose of this study is to establish the place of standardized test as a criterion in placement evaluation of students in Colleges of Education. The research will expose how effective is standardized test when it comes to admission of NCE students in Colleges of Education along aside Pre- NCE programme. The study also examines the academic performance of NCE students admitted through direct entry using standardized test such as WAEC, NECO and NABTEB and those NCE students admitted through Pre-NCE programme organized in Colleges of Education.

1.3. Research Questions

The following questions guided the conduct of this research

- Is there any difference in Academic performance of students admitted through direct entry using JAMB and those admitted through Pre-NCE remedial program?
- To what degree is the academic performance of direct entry student supersedes that of students admitted through Pre-NCE screening exercise.

1.4. Hypotheses

In this study, the following null hypothesis was formulated and tested at (α) 0.05 level of significance:

Ho: There is no significant difference between the mean performance of students of Colleges of Education admitted through standardized test and those admitted through Pre-NCE programme.

1.5. Significance of the Study

The need for admitting qualified students into Colleges of Education in Nigeria cannot be overemphasized, because it is when qualified students are admitted into tertiary institutions that the objectives of teacher education programs will be achieved.

Selection of qualified students into Colleges of Education will make teaching and learning easier as well students are usually focused and disciplined, the school management finds it much easier to manage discipline and focused students who always have set goals to achieve. This will go a long way in making the goal of education achieved effectively for economic growth and development in the various sectors of the nation. This study will be significant in the following ways;

- The study will provide empirical data on the effectiveness of the criterion used in placement of students in to an institution of learning ie Colleges of Education.

- The study will also inform the Federal Government to ascertain if remedial and Pre-NCE program is the most suitable strategy in restoring the decay in the quality of graduates produced by Nigerian Colleges of Education and Universities.
- Students will be informed of the need for hard work which will offer different chances to pursue tertiary education.

2. Conceptual Framework

The importance of education to national and social, economic growth and development is immeasurable [2]. However, there can never be any functional education without high and credible standard which must be sustained for any meaningful development in the society. Since the inception of University and Colleges of Education in post-independence, the government of Nigeria has been trying her. why feminine? Best to ensure that academic standard is maintained in the education system. This led to the establishment of Joint Admission and Matriculation Board , which conducted its first university matriculation examination in 1978 [3]. The Joint Admission and Matriculation Board (JAMB) was established in Nigeria in the year 1976 for some obvious reasons part of which were: Irregularities in the West African Examinations Council (WAEC), National Examination Council (NECO) and National Business and Technical Examination Board (NABTEB) all of which later joint West African Examination Council (WAEC) but their effort also proved to be abortive, multiple admission by decentralized admission policy which denied others opportunity, comparability of standards problem across Universities and Colleges based on minimum standards requirements.

It is obvious that in standard tests of all calibers (WAEC, NECO, NABTEB and JAMB), one needs to observe the environmental concomitants during such examination in some areas, such as high rate of infiltration in school compound including swift vehicular movements through which malpractice is aided and abated. Some staff quarters are converted to mini clearing houses for bridging examination gaps [4]. Some examiners are bribed into allowing unauthorized materials into the examination halls. Some of them are even used as organs of dissemination of worked answers. In this scenario, the school environment which is supposed to be characterized by calmness is infested with noise, rowdiness, disturbance and misdemeanor [5].

By the beginning of the 21st century, standardized tests criticism became a national issue as students that sat for the examinations and got excellent results when admitted into Universities and Colleges do not, and are still not performing well [6]. In 2005 the former Nigerian President, Olusegun Obasanjo openly accused Standard Examination Bodies of corrupt practices which had affected the standard of education in Nigeria. His statement attracted a lot of actions and reactions which in effect rendered Standard Examination incapable of being a yardstick to rely upon as true reflection of student's performance. It is quite disheartening that Standard Examination Bodies faces serious criticisms at the time that it has introduced innovation to curtail examination malpractices. The examination bodies have tried so much to avert this ugly situation through the help of security agents, but, all efforts proved abortive.

Due to so many intervening factors that come into play, [7] identified many factors that cause an examination malpractice in Nigeria such as psychological stress due to fear of failure, insufficient preparation for examinations, general high level of corruption in the society which includes the home, the school and the community, teachers' lack of discipline and low academic ability among others. This means that many more organizations and institutions have to join hands in tackling this issue. [4] Emphasized mapping the boundaries of stake holders' involvement as government, Parent Teacher Association (PTA), and indeed the entire society have to be involved in fighting this menace.

3. Research Design

An ex-post facto design was employed to investigate the implication of admitted student into Colleges of Education through direct entry and Pre-NCE scheme. The ex-post facto research design was used because both the cause and the effect had already occurred, while the data involved in the study remained as they were collected from the source without any manipulation. This research employed the use of descriptive survey design to investigate the relevance of standard test in our educational system when it comes to placement evaluation. It aimed at collecting data (test score) about the academic achievement of the students in various schools in Umar Suleiman College of Education Gashu'a. The files of the student admitted through standard test eg WAEC, NECO, and NABTEB were separated and the Cumulative Grade Average was taking and recorded. Another set of data was collected and recordeds i.e the test score of those students admitted through the college Pre-NCE screening exercise.

4. Methods

4.1. Method of Data Collection

The instruments for data collection that guided the study was the students' achievement test result. The researchers sorted out the student's files from each of these using stratified sampling selected departments and separates them into those admitted through direct entry from those admitted through the preliminaries and remedial program of the college. The SSCE record of the individual candidates reveals a hisher mode of admission. The files of the students admitted through standard test eg WAEC, NECO, and NABTEB were separated and the Cumulative Grade Average was taken and recorded. Another set of data was also collected and recorded, i.e the test score of those students admitted through the college Pre-NCE screening exercise.

4.2. Method of Data Analysis

Data analysis is the statistical technique or tool(s) employed in analyzing the research data [8]. Thus the data collected were subjected to descriptive statistical analysis by computing the Mean (Average) and Standard Deviation (SD) of each item. The decision rule was to reject an item whose mean fall below 3.00 since it used a five point likert scale. Moreover, for the purpose of testing the hypothesis, the data were analyzed using inferential statistics of t-test.

4.3. Population of the study

The population of this research work consists of all students admitted and registered into NCE 1 through direct entry using their SSCE in the 2010/2011 academic session and those who were admitted and registered into NCE 1 through Pre NCE remedial program in the 2011/2012 academic session, the population of the students admitted and registered into NCE 1 through SSCE in the 2011/2012 academic session is put at 116 while those admitted and NCE 1 through Pre NCE remedial program in the 2011/2012 academic session is put at 98.

4.4. Sample and Sampling Techniques

A sample is worthless unless it reflect the entire population upon which generation is made [9]. Umar Suleiman College of Education Gashu'a is blessed with six Schools; School of Science, School of Vocational and Technical Education, School of Languages, School of Education, School of Preliminary and Remedial studies and School of Art and Social Sciences out of which students from the department were selected. The sampled population of this research work consists of students from all schools who were admitted into NCE 1 in College of Education Gashu'a Yobe State in the 2010/2011academic session and 2011/2012 academic session. The 2010/2011 represents the set that was admitted by SSCE and JAMB while the 2011/2012 represents the set that was admitted through Pre-NCE remedial program of the college. As a case study, the researcher captured four departments as regards to the two academic sessions mentioned above.

4.5. Source for Data Collection

The past admission lists consisting of the names of students admitted through SSCE and JAMB scores and registered into NCE 1 for the 2010/2011 academic session and those who were admitted through Pre-NCE remedial program of the college and registered for the 2011/2012 academic session. The students' academic records kept by the College Academic Record Officer and heads of departments were used to calculate CGPA.

4.6. Method of Data Collection

All the data used for the study was collected from the past records kept in the departmental office and academic officers. The past admission records of students in the department were collected from the Head of Department. For the students past results, the researcher applies to the various Heads of Department through the examinations officer to collect the sampled students' academic status which were kept and used strictly for the purpose of this research. From the academic status, information about students past Cumulative Grade Point Average (CGPA) was collected. The collected data were summarized in tables to answer the research questions and test the null hypotheses at 0.05 levels of significance.

4.7. Method of Data Analysis

Data was collected, coded and computed using computer; Table and charts were used to answer the research questions. Z-test statistical tool was used for testing of the research hypothesis at 0.05 level of significance, the researcher adopted the use of a Z-test because of the sample size which is sufficiently >30. Formula for test of two means from independent sample was also used because of the nature of the study, which involves two independent sample i.e direct entry

candidates and Pre-NCE candidates drawn from a parent population NCE Academic status from School of Science, Vocational and Technical Education, Languages and School of Art and Social Science, Umar Suleiman College of Education Gashu'a Yobe State.

Research Question: Is there any difference in Academic performance of students admitted through direct entry using JAMB and those admitted through Pre-NCE remedial program?

Table 1 Mean CGPA of Direct Entry and Pre-NCE Products from the Department of Biology Education, College of Education Gashua Yobe State, and Nigeria

Mean CGPA				
	No	NCE I	NCE II	NCE III
DIRECT ENTRY	28	2.17	2.26	2.38
PRE-NCE	45	2.52	2.52	2.52

Source: Departmental records, Department of Biology Education College of Education Gashua Yobe State, Nigeria.

Table 1 above shows the comparison of Mean CGPA of direct entry students and that of the Pre-NCE students who were admitted into the college in the 2010/2011 academic session and that of Pre-NCE candidates who were admitted in 2011/2012 academic session in the department of Biology Education. Judging by the Mean CGPA, direct entry students could be classified as third class students while Pre-NCE students could be classified as Second Class Lower division students. This means that the Pre-NCE students do better in academic performance than direct entry students in the department of Biology Education.

Table 2 Mean CGPA of Direct Entry and Pre-NCE Products from the Department of English language College of Education Gashua Yobe State, Nigeria

Mean CGPA				
	No	NCE I	NCE II	NCE III
DIRECT ENTRY	69	2.03	2.24	2.45
PRE-NCE	92	2.56	2.74	2.87

Source: Departmental records, Department of English Language College of Education Gashua Yobe State, Nigeria.

Table 2 above shows a comparison in Mean CGPA of direct entry student and Pre-NCE students in the department of English language Umar Suleiman College of education Gashu'a. From the comparison, it reveals that Pre-NCE students perform better academically than the direct entry students in the department of English Language.

Table 3 Mean CGPA of Direct Entry and Pre-NCE Products from the Department of Business, Education, College of Education Gashua Yobe State, Nigeria

Mean CGPA				
	No	NCE I	NCE II	NCE III
DIRECT ENTRY	15	2.08	2.16	2.45
PRE-NCE	8	2.61	2.61	2.88

Source: Departmental records, Department of Business Education College of Education Gashua Yobe State, Nigeria.

Table 3 above shows a comparison in Mean CGPA of direct entry students and pre-NCE students from the department of Business Education. From the table, the analysis reveals that, Pre-NCE candidates have higher academic performance compared to direct entry students in the Department of Business education.

Table 4 Mean CGPA of Direct Entry and Pre-NCE Products from the Department of Geography Education, College of Education Gashua Yobe State, Nigeria

Mean CGPA				
	No	NCE I	NCE II	NCE III
DIRECT ENTRY	4	2.13	2.15	2.34
PRE-NCE	17	2.45	2.46	2.61

Source: Departmental records, Department of Geography Education College of Education Gashua Yobe State, Nigeria.

Table 4 shows the comparison of mean CGPA of the direct entry students and Pre-NCE students in the Department of Industrial design. Judging from the analysis from Tables above, one can deduce that direct entry students can be categorized as Third Class students (Merit) while Pre-NCE students fit into Second Class Lower Division (Credit). This deduction is based on Mean CGPA obtained in the tables mentioned above. This therefore answers the research question which states that 'Is there any difference in academic performance of students admitted through Pre-NCE scores and those admitted through direct entry scores?

5. Summary of Findings

From the findings, presentation and analysis carried out, it shows that students admitted through Pre-NCE screening exercise have higher academic performance compared to students admitted through direct entry. These findings were logically arrived at using research question and a hypothesis tested at 0.05 levels of significance and to arrive at this conclusion, four (4) departments were used. Academic status of 284 students from the four departments was extracted and used for the study 116 students from first group being direct entry students and 98 students from the second group being Pre-NCE candidates. The mean CGPA of two groups was compared from the four departments, the results revealed that mean CGPA of the direct entry students falls between 2.0 and 2.5 in all the departments from NCE I to NCE III while that of Pre-NCE students were between 2.45 and 3.0 at all levels for the four departments. This implies that students admitted through direct entry can be classified as third Class students (Merit) while those admitted through Pre-NCE screening can be classified as Second Class Lower Division (Credit) students.

6. Discussion of major findings

The findings of this study showed that Pre- NCE screening program is capable of restoring the past glory to Nigerian University and Colleges of Education System. Judging from the result of the data analyzed, there has been a remarkable improvement in academic performance among students. This study also agrees with the of Ebiri's observation that using JAMB, WAEC, NECO and NABTEB as a yardstick for admission of students into Nigerian Universities and Colleges of Education has led to intake of the poor caliber of students who are characterized by high failure rate and poor quality output. The discrepancy existing between the academic performance of direct entry students and Pre-NCE candidates is however not unconnected the problem of enrolment. According to [10], enrollment and enrollment management is an organizational concept and a systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments. This implies that enrollment is not an event, but a systematic process and as such, the school, students and the society should know this for effective planning and preparation to avoid corrupt practices which standardized test such as JAMB, WAEC, NECO and NABTEB body has been openly accused of in the past years. This, therefore, calls for the postulation of the theory of enrolment that: 'Level of students' academic performance depends on efficacy of the enrolment system.

So therefore, the researcher is of the opinion that standard test is not a true test of knowledge; rather an examination exercise to promote examination malpractice and enrich some people ideal instead of testing logical thinking, synthesis, comprehension, evaluation and analysis.

Recommendation

Based on the results obtained and the analysis of the findings, the researcher forwarded the following recommendations.

- Pre-NCE screening exercise should be considered necessary for admission of students into Colleges of Education at all levels in order to further equip the students on the approaches to higher education program.

- Only credible staff who have good records of service be involved in the conduct of Pre-NCE screening program to ensure that the candidates get quality background before they take up with the major task ahead of them.
- The cost for conducting the Pre-NCE program should be affordable and streamline all over the country, except where there are specific peculiarities. So that parents should not feel discouraged about the money which could be regarded as a waste.

WAEC, NECO, NABTEB and JAMB should try as much as possible to reduce the number of students that register for the examination in a year by accepting only candidate who shows a significant level of consistency in performance so that the board will have a firm control over their centers on the examination day. Awaiting result should be abolished hence there are no enough seats in the university even for those with complete results.

7. Conclusion

Pre Nigeria Certificate in Education (Pre-NCE) grogram plays a paramount role in molding and updating students' knowledge in order to successfully achieve the goal of passing N.C.E 1, 11, and NCE 111 examinations in order to obtain Nigeria Certificate in Education (NCE) when compared to direct entry students who were enrolled through assessment and consideration of WAEC, NECO, and NABTEP results before admission in to the college. It is impative that the product of pre NCE happing to be better than their counter part direct NCE entry students in College of Education Gashua, Yobe State, Nigeria. Pre-NCE screening exercise should be considered necessary for admission of students into Colleges of Education at all levels in order to further equip the students for the full NCE program.

Compliance with ethical standards

Acknowledgments

Disclosure of conflict of interest

There was no conflict of interest between the team however, traces of constructive argument were made on one procedure and the other but the research team finally agreed with all the outcome of the work.

Statement of Ethical Standard

The team worked in agreement with the ethical standard of the institution and the general public, guidelines were followed accordingly.

Statement of informed consent

The team seek consent of the faculty deans, Head of departments and the management of Umar Suleiman College of Education Gashua before data was collected for the departments.

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