

PREDICTIVE VALIDITY OF UNIFIED TERTIARY MATRICULATION EXAMINATION (UTME) AND POST-UTME SCORES ON STUDENTS' ACADEMIC ACHIEVEMENT IN FACULTY OF EDUCATION, AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

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Abstract

The study determined the Predictive Validity of Unified Tertiary Matriculation Examination (UTME) and Post-UTME Scores on Students' Academic Achievement in Faculty of Education, Ahmadu Bello University Zaria, Nigeria. The study adopted ex-post facto research design. The study population consisted of 1,343 students from the 2018/2019 graduating set across seven departments in Faculty of Education, Ahmadu Bello University, Zaria. A sample of 305 2018/2019 set of graduate students who sat for UTME and PUTME in 2015/2016 session was drawn. Data were collected using a proforma to obtain the student's results of UTME, Post-UTME and CGPA from their respective departments. The data collected were analyzed using Pearson (r) at 0.05 level of significance. The finding showed that there is no positive relationship between UTME and academic achievement (CGPA) with ($r = -0.04$ $p = 0.47$), Post-UTME and CGPA ($r = 0.01$, $p = 0.85$), and UTME and Post-UTME ($r = 0.11$, $p = 0.06$). Based on the findings of the study, it was concluded that UTME and Post-UTME scores are not significantly related to students' academic achievement as revealed in the cumulative grade point average (CGPA) in the Faculty of Education, Ahmadu Bello University, Zaria. This implies that the higher the scores in UTME and Post-UTME, the lower the performance in CGPA. It was recommended that institutions should regularly monitor and evaluate students' academic progress using their cumulative grade point average (CGPA). This will help identify students who may require academic support early and ensure that academic standards are maintained throughout their studies.

Key words: Predictive Validity, UTME, PUTME, Academic Achievement.

Introduction

Societal expectations regarding the academic performance of university students are typically high. Under normal circumstances, it is anticipated that undergraduate students will engage with their academic work effectively and demonstrate the capacity to succeed in their courses without resorting to examination malpractice. This assumption is premised on their prior exposure to and success in multiple public examinations before gaining university admission. Consequently, understanding the observed decline in the academic quality of graduates from Nigerian universities necessitates a critical examination of the various entry modes through which students are admitted, with the aim of identifying which mode best sustains the required academic standards.

In Nigeria, university students are expected to be sound academically. They are expected to have sat for the Senior Secondary School Certificate Examinations (SSCE) as an achievement test and pass at the minimum requirement of the University of Choice (Osakuade, 2011). Therefore, for a candidate to be qualified for admission into 100 level of a chosen course in any university, he or she must obtain an acceptable level of performance in the Unified Tertiary Matriculation Examination (UTME) and PUTME in the subjects relevant to the proposed course of study. Despite the numerous public examinations that Nigerian undergraduates pass through, academic achievement at the university level remains below expectations, particularly in faculties of education (Aremu & Oluwole, 2019; Olatunji, 2020; Yusuf & Adeoye, 2022). Many students hardly pass all their first year courses, majority of those who successfully do so, have poor grades. Greater percentage of university graduates in Nigeria today fall below second class upper division; the number of spillover students in various departments are on a high increase. The situation is now worse as those who even manage to graduate are not productive in the labour market because they fail to meet the expectation of the employers (Ajaja, 2010). Some employers of labour complained about the failure of graduates to meet their corporate expectations especially in terms of skills and competence. In support of this argument, a study sponsored by the National Universities Commission and the Education Tax Fund (NUC, 2004) revealed a mismatch between the skills of university graduates and the needs of employers across various disciplines. Emaikwu (2012) supported that, the fall in standard of achievement by students at all levels of education has been awfully reported and acknowledged by all and assorted in Nigeria. Ajaja, (2010) reported that, the ridiculous reduction in cut-off points for admission into Nigerian universities are at variance with the standard of excellence already set by some universities. More than 60 percent of candidates admitted into universities will always be of poor quality and this will surely create problems for their teachers who bear the brunt and pains of teaching “unteachable” students.

Reaffirming this pathetic condition of Nigerian university education, Adekunle (2012) reported that university education is at a crossroad in Nigeria and that none of them is among the best 30 in Africa, while none is among the best 1000 in the world. It would appear that the academic achievement of students can be traced to the quality of students admitted, and the process of admitting them. It is obvious that no parent will actually want to send their children to the university to come out with a third class or a pass degree or to spend more time than the stipulated duration for their course of study. Admission into Nigerian universities is basically through the Unified Tertiary Matriculation Examination (UTME) organized annually by the Joint Admission and Matriculation Board (JAMB), with the responsibility of ensuring a uniform standard for the conduct of matriculation examination and placement of suitable candidates into the Nigerian’s Universities, polytechnics, colleges of education and mono-technics.

Prior to the establishment of JAMB in 1978, each university was responsible for the conduct of its own concessional examination and admitted its own students. This system had serious limitations and was inefficient. Cases of multiple applications by prospective undergraduates who applied to more than one university accrued. Thus, there were multiple offers of admission

from different universities. Consequently, such candidates deprived other qualified candidates of places in those universities whose offers were declined.

Since examinations are expected to reveal the true latent abilities of examinees, it is expected that those candidates scoring high grades in the UTME and PUTME would be able to perform brilliantly well throughout their undergraduate studies. The discriminatory power of a test could be seen as ability of the test to discriminate impartially, objectively and honestly along the intellectual ability continuum of individuals being examined. In a situation where contrary to expectation happens, the experts would raise probing questions of how and why? Therefore, this study compares candidates' performance in Unified Tertiary Matriculation Examination (UTME), Post-UTME scores and students' academic achievement in faculty of education Ahmadu Bello University, Zaria, Nigeria to determine the predictive validity among the three. However, it is expected that candidates who possess ordinary level requirements and attained high score in UTME are capable of pursuing degree courses in the university successfully. It is also expected that candidates with higher UTME scores will end up with higher CGPA. On the other hand, students with low UTME scores would be expected to end up with low CGPA relatively.

Objectives of the Study

The objectives of the study are to determine the predictive validity of:

1. Unified tertiary matriculation examination (UTME) scores on students' cumulative grade point average (CGPA) in faculty of education Ahmadu Bello University, Zaria
2. Post-unified tertiary matriculation examination (PUTME) scores on students' cumulative grade point average (CGPA) in faculty of education Ahmadu Bello University, Zaria
3. Unified tertiary matriculation examination (UTME) scores on post-unified tertiary matriculation examination (PUTME) scores in faculty of education Ahmadu Bello University, Zaria.

Hypotheses

The following hypotheses were formulated based on the objectives of this study:

- H₀₁**. There is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and post-unified tertiary matriculation examination (PUTME) in faculty of education Ahmadu Bello University, Zaria
- H₀₂**. There is no significant correlation between students' unified tertiary matriculation examination (UTME) scores and their cumulative grade point average (CGPA) in the faculty of education, Ahmadu Bello University, Zaria.
- H₀₃**. There is no significant relationship between students' scores in post-unified tertiary matriculation examination (PUTME) and students' cumulative grade point average (CGPA) in faculty of education Ahmadu Bello University, Zaria

Methodology

This study adopted an ex-post facto research design. The ex-post facto design is identified to be the most appropriate for the study since the results (UTME & PUTME) of students in the Faculty of Education were used in reaching conclusion about the prediction of academic

achievement in Ahmadu Bello University, Zaria Nigeria. The population for this study comprised all 1,343 students from the 2018/2019 graduating cohort in the Faculty of Education, Ahmadu Bello University, Zaria, Nigeria, who sat for the Unified Tertiary Matriculation Examination (UTME) in the 2015/2016 academic session. A sample of 305 students was drawn from three out of the seven departments within the Faculty. The sample size was determined using Research Advisors' (2006) table for determining sample size from a given population, which recommends a minimum of 291 respondents for a population of 1,343. To select the sample, a simple random sampling technique (balloting) was employed to randomly choose three departments from the seven in the Faculty of Education.

The instrument for data collection was a proforma developed by the researcher for extracting the scores of selected students. The proforma was designed to include serial number, JAMB registration number, gender, UTME scores, PUTME scores and CGPA. UTME and PUTME scores were obtained from the university head of admission and registration, while CGPA was obtained from the examination officers of the respective departments. All collected data were recorded in the appropriate sections of the proforma for subsequent analysis. Data collected were analyzed using Pearson Product Moment Correlation (r), all hypotheses tested at 0.05 levels of significance.

Results

Hypothesis One: There is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and post unified tertiary matriculation examination (PUTME) in faculty of education, Ahmadu Bello University, Zaria.

Table 1: Correlation analysis of the relationship between UTME scores and Post-UTME scores

Variables	N	Mean	SD	r	p
UTME	305	211.04	16.27	0.11	0.06
PUTME	305	184.31	26.37		

Table 1 revealed that there is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and post-unified tertiary matriculation examination (PUTME). The r value computed is 0.11 and p - value of 0.06 is obtained. Since the p -value of 0.059 is less than the alpha value of 0.05, therefore, the null hypothesis which states that, there is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and post-unified tertiary matriculation examination (PUTME) is here by retained.

Hypothesis Two: There is no significant correlation between students' unified tertiary matriculation examination (UTME) scores and their cumulative grade point average (CGPA) in the faculty of education, Ahmadu Bello University, Zaria.

Table 2: Correlation analysis of the relationship between UTME scores and CGPA scores

Variables	N	Mean	SD	r	p-value
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UTME	305	211.04	16.27		
				-0.04	0.47
CGPA	305	3.02	0.49		

Table 2 revealed that there is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and students' cumulative grade point average (CGPA). The r value computed is -0.042 and p- value of 0.467 is obtained. Since the p-value of 0.467 is greater than the alpha value of 0.05, therefore, the null hypothesis which states that, there is no significant relationship between students' scores in unified tertiary matriculation examination (UTME) and students' cumulative grade point average (CGPA) is accepted.

Hypothesis Three: There is no significant relationship between students' scores in post unified tertiary matriculation examination (PUTME) and cumulative grade point average (CGPA) in faculty of education, Ahmadu Bello University, Zaria.

Table 3: Correlation analysis of the relationship between PUTME scores and CGPA scores

Variables	N	Mean	SD	r	p - value
PUTME	305	184.31	26.37		
				0.01	0.85
CGPA	305	3.02	0.49		

Table 3 revealed that there is no significant relationship between students' scores in post-unified tertiary matriculation examination (PUTME) and students' cumulative grade point average (CGPA). The r value computed is 0.011 and p- value of 0.854 is obtained. Since the p-value of 0.854 is greater than the alpha value of 0.05, therefore, the null hypothesis which states that, there is no significant relationship between students' scores in post-unified tertiary matriculation examination (PUTME) and students' cumulative grade point average (CGPA) is here by retained.

Discussion of Findings

This study focused on the predictive validity of unified tertiary matriculation examination (UTME), post unified tertiary matriculation examination (PUTME) and students' cumulative grade point average (CGPA) in faculty of education, Ahmadu Bello University, Zaria. The first findings revealed that there is no significant positive relationship between students' scores in unified tertiary matriculation examination (UTME) and post unified tertiary matriculation examination (PUTME) in faculty of education, Ahmadu Bello University, Zaria. This implies that the score in UTME is higher than the scores in Post-UTME. Some related studies have been revealed to support this finding. This finding is in line with the finding of Bichi (2015) who examine the relationship and difference between the UTME and the Post-UTME scores of bachelor of arts, sciences, and social sciences education (B.A{Ed} and B.Sc {Ed}) students of the Northwest University Kano, Nigeria. The study revealed that the students scored significantly ($P < 0.05$) higher marks in UTME than Post-UTME. The finding of this study also coincides with the finding of Sojobi, Mabosanyinje, Ogunsanya and Sulaimon (2014) who examine the relative effectiveness of the unified tertiary matriculation examination (UTME)

and post unified tertiary matriculation examination (Post-UTME) on the first year (NDI) academic performance of students admitted to Moshood Abiola Polytechnic in 2012/2013 session. Findings show that Post-UTME was more effective than the UTME. More so, there was a low and inverse relationship between students' score in Post-UTME and UTME.

On contrary, Oche (2015) conducted a study on predictive validity of unified tertiary matriculation examination (UTME) on the post-unified tertiary matriculation examination (PUTME). The result showed that there is a statistical significant difference in the mean performance of students in unified tertiary matriculation examination (UTME) and post unified tertiary matriculation examination (PUTME) scores. The mean of candidates in the UTME is higher than their mean score in PUTME. The standard deviation of candidates in UTME is lesser than that of PUTME. Sequel to this, it was inferred that UTME is more susceptible to examination malpractice than PUTME. Moreover, the correlation coefficient computed between UTME and PUTME scores was very low showing evidence of unpredictable validity between the two examinations.

The second findings of the study revealed that there is no significant positive relationship between students' scores in unified tertiary matriculation examination (UTME) and students' cumulative grade point average (CGPA) in faculty of education, Ahmadu Bello University, Zaria. This finding is in line with the findings of Aremu, Tubokun and Olanike (2020) that conducted a study on the predictive validity of unified tertiary matriculation examinations (UTME) scores on Academic performance of 100 level students of the University of Ibadan. The results showed that UTME could not predict the academic performance of the students.

On the contrary, Olalere and Abioye (2014) conducted a study to find out the predictive validity of UTME Scores on the final degree results of Osun state university students, Nigeria. The findings revealed that UTME scores play a pivotal role in the determination of intelligence built-up and performance of final year grade points results. Also Popoola (2016) conducted a study to find out the predictive validity of unified tertiary matriculation examination (UTME) scores on students' academic achievement in Federal University of Technology, Yola. The findings revealed that there is a significant relationship between UTME scores and First Year Grade Point Average (FGPA) thereby presenting UTME as a strong predictor of students' academic achievement in FUTYOLA. This also disagrees with the findings of Sylvanus (2015) who examined the predictive validity of UTME scores in relation to students' performance in first year university examination. The result revealed that the UTME scores correlates highly with performance in first year university examination.

The third findings of this study revealed that there is no significant positive relationship between students' scores in post unified tertiary matriculation examination (PUTME) and students' cumulative grade point average (CGPA) in faculty of education, Ahmadu Bello University, Zaria. This shows that the performance of students in Post-UTME is higher than the performance in CGPA. Some literatures have been examined by the researcher to support this finding. This finding is in agreement with Owan and Ukofia (2017) who examined the extent to which students' successes in UTME examinations could serve as predictor of their performance in the first year final departmental examinations in the university. The results

revealed that the correlation coefficients were low and negative relationship between UTME and CGPA for first year final examination performance in the four departments.

On the contrary, Sheyin, Adedayo, and Sennuga (2018), who conducted a study to assess the impact of student results in Post-JAMB examination on their academic performance with specific, focus on Tai Solarin University of Education, Ijebu-Ode. The result indicated that there is a significant relationship between students' results in post UTME screening test and student academic performance. This finding also disagree with the finding of Benjamin, Olanrewaju, Moses, and Ismail (2018), who conducted a study to find out the association between entrance exam and academic performance measured by cumulative grade point average (CGPA) of 381 students who were admitted to eight undergraduate programmes at Lagos State University. However post-UME was significantly associated with CGPA.

Conclusion

Based on the findings, the study concluded that UTME and Post-UTME scores are not related to students' cumulative grade point average (CGPA) in faculty of education, Ahmadu Bello University, Zaria. This implies that the score in UTME and Post-UTME is higher than performance in CGPA. This shows that UTME, Post-UTME and CGPA are negatively correlated. It also concluded that unified tertiary matriculation examination (UTME) score is not related to post unified tertiary matriculation examination (Post-UTME) in faculty of education Ahmadu Bello University, Zaria. This suggests that UTME and Post-UTME scores are not strong predictors of students' cumulative grade point average (CGPA) in the faculty of education at Ahmadu Bello University, Zaria, Nigeria.

Recommendations

Based on the findings, the following recommendations were made:

1. The joint admissions and matriculation board (JAMB) should strengthen its mechanisms for preventing examination malpractices during the unified tertiary matriculation examination (UTME). This will help to ensure the credibility and integrity of the examination process. JAMB should also adopt additional measures to enhance the administration and conduct of the UTME, thereby enabling tertiary institutions to admit candidates who are sufficiently prepared for their chosen courses of study.
2. Universities should establish clear and standardized benchmarks for the Post-UTME to ensure that only suitably qualified candidates are admitted into various programmes.
3. Institutions should regularly monitor and evaluate students' academic progress using their cumulative grade point average (CGPA). This will help identify students who may require academic support early and ensure that academic standards are maintained throughout their studies.

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