

RELATIONSHIP BETWEEN ENTRY QUALIFICATION GRADE AND PERFORMANCE IN MATHEMATICS IN KASHIM IBRAHIM COLLEGE OF EDUCATION MAIDUGURI

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Abstract: The study examine in the relationship between entry qualification and performances in NCE mathematics at Kashim Ibrahim College of Education, Maiduguri. The target population comprises of 44 graduates of mathematics for the period 2001-2003. A structured questionnaires titled "Entry Qualification Achievement Score" was designed to collect data. Achievement mean in respect: each category of entry qualification were obtained. The analysis revealed that there is no direct link between entry qualification and achievement in (NCE) mathematics. It further revealed that those with lower entry qualification performed better than those with higher qualification. The study viewed that those with higher qualification did not reflect genuine performance so students should be subjected to pre admission screening.

INTRODUCTION

The national policy of education stipulates the need for acquisition of appropriate skills, abilities and competences both mental and physical as equipment for the individual to live, contribute to the development of his society. Knowledge of science is central towards realization of these objectives. The extent to which students are able to perform in the science depends on how solid the foundation and implementation of the educational policies and programmes are all the levels of education.

Over the years, mathematics education has received and continues to receive special emphasis and attention. This is perhaps in recognition of the indispensable role of mathematics in realizing the nation's dream of rapid scientific and technological development. According to I

Ukeje (2000), the increasing importance and attention given to mathematics stem from the fact that without mathematics there is no science, without science there is no mother technology and without modern technology there is no modern society. As it is rightly observed by Bajah (2000), no nation can make any meaningful progress in this information technology age, particularly in economic development without technology whose foundation is mathematics.

This study is centered on mathematics education at the tertiary level of education, particularly the Nigeria Certificate of Education (NCE) being pursued by the college of education. The philosophy of NCE mathematics is to produce competent mathematics teachers, who are well grounded in the culture of mathematics and be able to teach effectively mathematics at the universal basic education level.

The entry requirement for admission to NCE mathematics stipulated by the National commission for College of Education (NCE) guideline.

The study examines the relevance of the entry requirement vis-à-vis the final academic performance of student in NCE mathematics at Kashim Ibrahim College of Education (KICOE), Maiduguri, Borno State.

STATEMENT OF THE PROBLEM

Over the years, admission into the college has been on the basis of paper qualification. Students are being admitted to study mathematics based on paper qualification stipulated as minimum entry requirement.

However, it has been observed that student's often present brilliant results in mathematics that qualify them to read mathematics. But, a sizeable number of them hardly proceed beyond the one hundred level of the programme. Those who have been able to select usually perform below expectation.

Therefore, there is need to determine whether the end of NCE mathematics programme has any direct link with the entry qualification.

OBJECTIVE OF THE STUDY

The objective of this study are as follows:

- i. To determine the relationship between entry qualification and student final performance in mathematics;
- ii. To find out whether those with higher qualification have better performance than those with lower qualification;
- iii. To find out whether admission procedure had influence on achievement.

SIGNIFICANCE OF THE STUDY

The outcome of this study will be of immense benefit to the college in its admission policy and procedure. The outcome will help to restructure the admission policy to be harmony with the actual academic performance of students.

The study will be of significant to all stakeholders in mathematics educational planning and management.

Research questions

The study seeks solution to the following questions:

- i. Do students with higher qualification have better performance than those with lower entry qualification?
- ii. Does final performance at the end of the NCE programme has any direct link with entry qualification?
- iii. Does admission procedure have impact on achievement?

RELATED LITERATURE

Various studies were conducted on entry qualification and academic performances of student. Adeniran (1987) examined the factors affecting the performance of University of Ibadan (1980-1984) undergraduate students in the faculty of science. He concluded that there is no relationship between the final performance and the entry qualification of intakes. Oladele Orage (1994) also examines the relevance of student basic entry qualification to their academic performance at Kaduna polytechnic, it was established that, the entry qualification of the student have limited influence on final performance.

Studies on entry qualification and academic performance of students' in mathematics at Kashim Ibrahim College of Education (K1COE), Maiduguri therefore will be seen as brilliant addition to the exiting volume of literature on the topic.

Research Design

The study is designed to determine the relationship between entry qualification grades and final academic performance of mathematics students in Kashim Ibrahim College of Education (K1COE), Maiduguri. This is one the assumption that entry qualification affects student academic performance in mathematics NCE level. Hence, simple arithmetic mean will be used to determine the relationship.

Population and sample of the study

The population size comprised of all the graduate of mathematics from the year 2001 to 2003. Considering the small size of mathematics graduates, the whole population was considered for the research work. A total of 44 students were considered.

Administration and collection of data

The structured questionnaire designed titled entry qualification guides and final performance of NCE mathematics was administered to the Head of Department of mathematics, KICOE, Maiduguri. Data for three consecutive years were collected.

Method of Data Analysis

In order to make decision, the arithmetic mean was used to analyse the data collected. The mean achievement score for each category of the programme will be computed and inference will be made to the scoring scale below:

Distinction	(5)	4.50- 5.00
Credit	(4)	3.50- 4.49
Merit	(3)	2.50- 3.49
Pass	(2)	1.50- 2.49
Low pass	(1)	1.00- 1.49

Research question I

Does achievement at end of NCE mathematics have direct link with entry qualification?

Table I: Entry qualification and achievement indices in mathematics for 2001-2002 session

Entry Qualification	No. of Students	Achievement Indices					Mean Achievement
		4	3	2	1	score	
NCE Undertaking	5		2	2	1		3.20
NCE Qualified	3			1	2		2.33
Total	8		2	3	3		

Source: Fieldwork 2009

The above table indicates that, the achievement mean of students with NCE under taking is 3.20 while those of NCE qualified is 2.33. this clearly revealed that entry qualification did not influence academic achievement at the end of the programme.

Research question II

Do students with higher entry qualification have better achievement mean than those with lower entry qualification?

Table II: Entry Qualification and achievement indices for 2002/2003 session in mathematics

Entry Qualification	No. of Students	Achievement Indices					Mean Achievement
		4	3	2	1	Score	
NCE Undertaking	6		4	1	1		3.50
NCE Qualified	8		4	2	2		3.25
Total	14		8	3	3		

Source: Fieldwork 2009

The table above indicates that the achievement mean for NCE undertaking is 3.50 while the qualification mean for NCE qualified is 3.25 this reveals that students with lower entry qualification achieved better than students with higher entry qualification.

Research question III

Does admission procedure have impact on achievement.

Table III: Entry Qualification and Achievement indices for 2003/2004 sessions in Mathematics

Entry Qualification	No. of Students	Achievement Indices					Mean Achievement
		4	3	2	1	Score	
NCE Undertaking	8		4	3	1		3.38
NCE Qualified	14		3	5	4	2	2.64
Total	22		7	8	5		

Source: Field work 2009

The above table also shows that admission procedure have no impact on achievement.

Table IV: Summary of Entry Qualification and achievement indices for

2001/2002 to 2003/2004 sessions.

Entry qualification	No of students	Achievement mean	Percentage
NCE undertaking	19	3.37	43%
NCE Qualified	25	2.8	57%

Source: Field work 2009

DISCUSSION OF FINDINGS

From the above summary table, it is observed that the achievement mean of those admitted to NCE mathematics with undertaking, and therefore lacking the minimum entry requirement is (3.37). The table also reveals that the achievement mean of those admitted with the minimum entry requirement and therefore qualified for NCE mathematics is (2.3). This indicates that those lacking the minimum entry qualification achieved better than those with the required minimum qualification.

It is however expected that better achievement at the end of the programme. Contrary to expected therefore, the data reveal that there is no direct relationship between the minimum entry qualification and achievement at the end of the NCE mathematics for the period stated.

The table also clearly reveals the fact that those with lower entry qualification performed better than those with higher entry qualification as shown by their achievement means. The reason could be that those with higher qualification felt relaxed compared to those with lower entry qualification, who had to work extra hard to achieve better performance.

As students were admitted on the basis of paper qualification presented by the candidate who did not genuinely merit such credentials were admitted and this possibly explained the reason why students with higher entry qualifications performed less than those with lower entry qualification.

SUMMARY OF FINDINGS

The following are the findings of the study:

- ii. the researchers observed that majority of the students came through NCE (Direct) about 57%;

- iii. The researchers also observed that there is no direct link between entry qualifications and achievement in mathematics;
- iv. The study also shows that students with lower entry qualification did better than those with higher entry qualifications.

CONCLUSION

The study has critically examined the relationship between entry qualification and achievement in mathematics at Kashim Ibrahim College of Education, Maiduguri, within the period 2001-2004. Three research questions were raised to assess whether there is a direct link between entry qualification and achievement at the end of NCE mathematics. From the data obtained, it was observed that those that came through NCE-undertaking have an achievement mean of (3.37), which is merit, while those that came through NCE-qualified have an achievement mean of 2.8, which is also merit. This clearly revealed that there is no significant difference in their achievement in mathematics. This means that those with higher entry qualification (NCE-qualified) and that entry qualification have not directly influenced achievement in mathematics.

It can therefore be concluded that entry qualification has no direct link on achievement in mathematics within the period (2001-2004).

To this end, the researchers are of the opinions that, in view of the monumental level examination malpractice taking the centre stage of the educational system, it may not be out of place to link the paper qualification presented for admission to its in-genuineness. This possibly explains the entry qualification in mathematics not reflecting achievement.

However, this can be a subject of further research and investigation.

RECOMMENDATIONS

From the foregoing, and in view of the findings from the study, the researchers make the following

Recommendations:

- ii. The college should recognize its admission procedure, though paper qualification remains the major means of predicting student's ability in mathematics, there is the need to subject students to preadmission screening. This can reveal their genuine abilities and competence in mathematics;
- iii. Government should give priority attention to mathematics education though adequate support and encouragement;
- iv. The right culture of mathematics be inculcated to students so as to achieved the philosophy of mathematics education;
- v. Government and all stakeholders in education should squarely address the issues of examination malpractice which have remain a recurrent decimal in the education system.

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