



EFFECT OF TEACHER QUALIFICATION AS DETERMINANTS OF STUDENTS' PERFORMANCE IN MATHEMATICS

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Abstract

This study investigates the Effect of Teacher Qualification as Determinants of students' performance in Mathematics. The target population was 24 SSS two students and Mathematics teachers in these schools. Four SS were selected in Ijero Local Government Area from the four schools

Keywords

*Teacher,
Determinants,
Performance,
Determinant,
Qualification and
Mathematics.*

selected, 20 SS 2 students each were further randomly selected giving a total of 80 students. Hence, all the Mathematics

INTRODUCTION

National council for curriculum

Assessment (2005) noted that many students view

Mathematics as a difficult subject and perceive higher

Mathematics as an elite subject for only the best students.

Mathematics was made compulsory for all students, the

performance of all these students is not encouraging after all.

Poor academic performance according to Aremu

and Sokan (2003) is one that is adjudged by the examinee/testee

as falling below an expected standard. Poor academic

performance has been observed in school subjects especially

Mathematics among secondary school students (Adesemowo,

2005).

teachers teaching SS2 in second instrument study clarity of the 24 SS were used. (TMSPT) contained language. The study Teacher Questionnaire statistics questions that revealed that students (TQ) and Teacher Made were taught to the taught by qualified Statistic Performance students. Both Mathematics teachers Test (TMSPT) were instruments were improved upon their used for the study. The properly validated by statistics achievement, TQ was aimed at experts as appropriated problem solving identifying Teacher with respect to behaviour as well as qualification and adequate coverage of interest in statistics. experiences. The the variables in the

Over the past decades, educational planners, policy makers and administrators all over the world have become increasingly concerned about the quality of education provided by the school system. They have come to realize that many meaningful improvements in the quality of education that students receive and highly dependent on the quality of teachers (Anderson, 1991). An educational system that is being managed by non-qualified teachers will in no time collapse. This implies that teacher quality is an index of the educational development of the nation.

Many factors contribute to a student's academic performance including individual characteristic, family and teacher. When it comes to student performance on reading and Mathematics test a teacher is estimated to have two or three times the impact of any other school factor, including services facilities and even leadership (Mohammed and Yusuf, 2015).

Unanma et al (2013) examined the relationship between teacher's academic qualifications and academic achievement of Senior Secondary School students in Chemistry and discovered that there is a positive relationship between the variables. This was endorsed by the findings of Adeyemi (2014) in their parts to analyse the performance of the English Language.

According to Harris and Sass (2011), it is accepted in general that promoting teacher quality is a key element in improving primary and secondary education in the United States. Akinfe, Olofunniyi and Fashiku (2012). They found that, the role of professionally qualified/trained teachers was an important teacher quality which enhanced students academic achievement in

Biology; teaching methods adopted by the teachers significantly influenced achievement of the behavioural objectives; and that teachers experience significantly influenced students academic performance.

Adesina (1982) posited that inspite of the complexity of Mathematics syllabus at the Senior Secondary School level, unqualified Mathematics teachers are engaged to teach students in nearly all secondary school in Nigeria. That was why Okafor (1990) sated that anyone who teaches Mathematics should know Mathematics, like Mathematics and should be able to communicate well with the learner as well as understand the Mathematics learning process.

Statement of the Problem

The search for ways of making learner's achievement in schools has been major pre-occupation of educators. The teaching and learning process does not only concern teachers and students but also the nature of interaction between them in the classroom. The factors responsible for these poor levels of performance might be attributed to teachers preparation to the teaching of Mathematics such as experience and qualifications among others.

This means that teacher factor is very critical to improving students Mathematics achievement, hence the needs to research on the Effect of Teacher Qualification as Determinants of students' performance in Mathematics in two (2) Local Government areas of Ekiti State Secondary school.

Significant of the Study

The study seeks to proffer remedy to the problem of Poor academic performance of Mathematics students in Mathematics at the Senior Secondary School level. the findings will also be a benefit to the government, examination bodies, Mathematics teachers, curriculum planners and students. It will also be a reference materials for further research works.

Purpose of the Study

The purpose of this study was to examine the effect of teacher qualification as determinants of students performance in Mathematics in one (1) Local Government area of Ekiti State Secondary School.

Research Questions

The following research questions were derived from the research objectives.

1. How qualified are Mathematics teachers in Ijero LGA of Ekiti
2. How does teacher qualification affect students statistics performance in Ijero LGA of Ekiti State
3. How does teacher qualification affect students statistics problem solving behaviour in Ijero LGA

Research Hypothesis

Ho₁: There is no significant difference between the mean performance scores in statistics of students taught by qualified and unqualified Mathematics teachers

Research Design

The research design for this study was the expo-factor design. The students have already been taught, the researchers was mere working for the outcome. These teachers are already either qualified or not qualified.

Population, Sample and Sampling Techniques

The target population was 24 SSS two students and Mathematics teachers in these schools. Four SS were selected in Ijero Local Government Area from the four schools selected, 20 SS 2 students each were further randomly selected giving a total of 80 students. Hence, all the Mathematics teachers teaching SS 2 in the 24 SS were used.

Teacher questionnaire (TQ) and Teacher Made Statistics Performance Test (TMSPT) were used for the study. The TQ was aimed at identifying Teacher qualification and experiences. It has two parts, Part "A" showing teacher Bio-data while Part "B" covers teacher general interest as they affect students statistics interest. It was structured in four point scale form. The second instrument (TMSPT) contained statistics questions that were taught to the students both instruments were properly validated by experts as appropriated with respect to adequate coverage of the variables in the study clarity of language expressing and relevance of the instruments to measure what it was supposed to measure. Test, retest method was used. The instrument was administered to twenty (20) teachers and fifty students in

five secondary schools in Ijero Local Government Area of Ekiti State. The scores from the first and second administration were correlated using Pearson Product Moment Correlation (r).

Results

Results of this study was presented according to research questions asked and hypothesis formulated

Research Question 1

How qualified are Mathematics teachers in Ijero Local Government Area of Ekiti State.

Table I: Mathematics Teachers Qualification and their year of experience in SS in Ijero Local Government Area of Ekiti State.

Qualification	No	Area of Specialization	Year of Experience	Comment
NCE	2	Mathematics	5 – 10	Qualified
PDGE	1	Mathematics	1 – 5	Qualified
B.Sc.	3	Physics	1 – 5	Unqualified
B.Sc.	1	Chemistry	1 – 5	Unqualified
OND	1	Accounting	1 – 5	Unqualified
B.Sc	1	Mathematics	1 – 5	Unqualified
HND	1	Civil Engineering	5 – 10	Unqualified
B.Sc. (Ed)	1	Mathematics	1 – 5	Qualified
M.Ed	3	Mathematics	5 – 10	Qualified
PGDE	1	Chemistry	1 – 10	Unqualified
M.Sc.	1	Elect/Elect. Eng.	Over 15	Unqualified

Table I shows that more than half of the teachers teaching Mathematics in the study area are unqualified. However, some of them were found to be well qualified with needed teaching experience.

Research Question 2

How does teacher qualification affect students Statistics Performance in Ijero Local Government Area of Ekiti State.

Table 2: Problem Solving Behaviour of students taught by qualified and unqualified Mathematics teacher

Variables	No of students	Mean	SD
Taught by qualified teachers	40	30.45	11.14
Taught by unqualified teachers	40	25.48	10.87

Table 2 above, shows students taught by qualified Mathematics teachers had a mean score 30.45 with a standard deviation of 11.14. While those taught by unqualified Mathematics teachers had a mean scores of 25.48 with a SD of 10.87.

Research Question 3

How does teacher qualification affect students statistics problem solving behaviour in Ijero Local Government Area of Ekiti State.

Table 3: Mean Performance of Students in State due to Mathematics teacher qualification

S/N	Variables	Mean	SD	Remarks
1	Teacher qualification does not affect student Mathematics performance	2.10	0.72	Disagreed
2	Teacher qualification affects student Mathematics interest	3.15	0.59	Agreed
3	A qualified Mathematics teacher usually provide feedback to his student	3.45	0.60	Agreed
4	Student have no interest in statistics generally because of lack of qualified Mathematics teachers	2.85	0.67	Agreed
5	Qualified Mathematics teachers have their students into cognizance while teaching	3.70	0.47	Agreed

From table 3 above, it shows that items 1 and 3 which are negatively cued having mean scores of 2.10 and 2.85 with associated standard deviations of 0.72 and 0.67 respectively. In addition, items 2, 3 and 5 that are positively cued have mean scores ranging from 3.15 to 3.70 with their standard deviations ranging from 0.47 to 0.60.

Results

Research Hypothesis: There is no significant difference between the mean achievement score in statistics of students taught by qualified and unqualified Mathematics teacher.

Table 4: t-test of Achievement in Statistics of Students taught by qualified and unqualified Mathematics teachers.

Variable	No of Students	X	Df	t-cal	t-crit
Students taught by qualified teachers	40	48.53	78	2.75	1.98
Students taught by unqualified teachers	40	39.25			

From the table 5 above, it was clear that t-cal is 2.75 while that of t-tab is 1.98 at 0.05 level of significance at 78 degree of freedom. This means that the t-cal is greater than t-table. Hence, the null hypothesis is rejected.

Discussion of Findings

It was seen that unqualified teachers with qualifications such as HND, OND, B.Sc. etc. still teach Mathematics in the secondary schools. This means that one may not expect colleagues from other discipline to produce students who will perform adequately well in their SSCE. In addition, the study revealed that students taught by qualified Mathematics teacher improved upon their statistics achievement, problems solving behaviour as well as interest in statistics. This finding is in line with Galadima (2002), Salman (2004) who all found that teacher qualification is very crucial to students Mathematics achievement.

Conclusion and Recommendations

The position of the results is that we still have qualified Mathematics teachers teaching in the secondary schools. Also, it was found that Most of the Mathematics teachers in our schools are still very much unqualified. The paper therefore recommends that only qualified Mathematics teachers should be recruited to teach Mathematics in the secondary schools. The unqualified Mathematics teacher should be encouraged to enrol for post-graduate Diploma in Education.

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