



## Teacher's Quality as a Correlate to Students' Academic Performance in Senior Secondary Schools in Maiduguri Metropolis, Borno State

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### ABSTRACT

*This study examined the relationship between teachers' quality and students' academic performance in senior secondary schools in Maiduguri Metropolis. A correlational design was used. The total population of the study was 1236 respondents out of which 371 respondents were sampled through simple random sampling. SSCE results for five consecutive years (2014-2018 academic session) were obtained from the selected schools as the data for the study. The study employed inferential statistics (Person product-moment correlation coefficient) to test the hypothesis at 0.05 level of significance. The result was presented in the table and discussed according to the objective and hypothesis. The study revealed a significant relationship between teachers' qualification ( $r=0.672$ ,  $p=0.004$ ) and students' academic performance in senior secondary schools in Maiduguri metropolis. Hence, the following recommendation was made; school administrators should organize workshops and seminars to re-train teachers on the proper implementation of the curriculum in senior secondary schools in Borno State.*

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### INTRODUCTION

Education and its importance can never be quantified as the pivot of scientific and technological, economic, industrial and development. All phases of development are centred on education. Education is one of the crucial tools for development in any nation. Every educational system at every level depends heavily on teachers for the execution of its programs. Teachers are very important for the smooth and successful running of the educational system and vital instruments for educational development. Teachers at all levels of education play a decisive role in pivoting the growth and the development of education. It is a known fact that teacher is the most important cog in the educational machine and that teachers are highly instrumental to the

success of any educational program embarked upon by any government. This is because apart from being at the implementation level of any educational policy, the realization of these programs also depends greatly on the teacher's dedication and commitment to their work. Teacher quality is verbal ability, subject – matter knowledge, knowledge of teaching and learning the ability to use a wide range of teaching strategies adapted to student needs. It is another very influential determinant of the classroom environment. A teacher's qualities include preparation and training, the use of a particular instructional approach and experience in teaching. This insight is shared by Mullis, Kennedy, Martin and Sainsbury (2004) who



indicate that teacher quality is an important determinant of pupil performance.

The quality of education hinges on the quality of teaching that goes on in the classroom reinforcing the idea that quality teachers make up for the deficiencies in the curriculum and educational resources (Anderson 1991). Teacher quality is widely thought of as essential determinants of academic performance, yet there is little agreement as to what specific characteristics make a good teacher (Hanushek and Rivkin, 2006). This is an important issue as the economic impact of higher student achievement can be a function of the depreciation rate of student learning, the total variation of teacher quality (as measured by student achievement on standardized tests), and the labour market return to one standard deviation of higher achievement.

The academic performance of students in the senior school Certificate Examinations conducted between 2014 and 2018 was below fifty per cent (50%) (Federal Ministry of Education Nigeria, 2006). The falling standard of education in the nation is alarming more especially in secondary schools. The students are performing very low in their academic performance. Their continuous assessment is poor; their terminal examination is very disappointing ("F.C.E Staff secondary school 2009 end of third term examination" report). The performance of Nigerian Secondary School students in external examinations showed 98% failure rate in the 2018 November/ December Senior School Certificate Examinations conducted by the National Examination Council (NECO-SSCE); out of the total number of 230, 682 candidates who sat for the examination, only 4,223 obtained credits level passes and above in five subjects including English and Mathematics (Bello and Olugbornila, 2018). Mathematics is one of the compulsory subjects that students must offer in Senior

Secondary School not minding whether such students are in Science Commercial, Arts or Social Science class. In Secondary School curriculum according to National policy on education (2004), there are core subjects as well as electives that students must offer.

Majority of Secondary School Students often dread and show a negative attitude towards mathematics (Awofala, 2000), and the trends of their achievement in the Senior Secondary School Certificate Examination is also a source of worry to the stakeholders. The public unhappiness becomes more prominent following the annual release of the West African senior school certificate examination result. Student's outcomes do not match the government and parental investment. All stakeholders are concerned about why the system is bringing out graduates with poor result. To them, it is questionable whether or not teachers in our secondary schools, the most important factor in the effectiveness of schools and the quality of a child's education is competent to teach effectively. The national policy of education states that "No educational system can rise above the quality of teachers in the system (FGN, 2006).

The federal government of Nigeria has made several attempts and enacted laws concerning the development of education. Among such attempts is the law concerning the recruitment of teachers this is done to achieve educational aims and objectives. This could be achieved if there are qualified teachers to teach at the appropriate level. There is a need for this research, to achieve educational aims and objectives. This could only be achieved by having qualitative teachers to teach at the appropriate level. There is need for this research, to find out if there is any relationship between teachers' quality and students' achievements, more especially in



these few years that the nation is witnessing the massive failure of (SSCE).

### **Objective of the Study**

This study is set to determine the relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis, Borno State, Nigeria.

### **Research Question**

The study sought to provide an answer to the following research question:

1. What is the relationship between teachers' quality and students' academic performance?

### **Research Hypothesis**

The following hypothesis was raised for this research;

H<sub>0</sub>: There is no significant relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis, Borno State, Nigeria.

### **LITERATURE REVIEW**

Quality has been described in many ways, although, often in an intuitive manner (Reeves, 2002). Iyamu (2005) defines the quality of education as "the principal measure of the effectiveness of education and the most vulnerable attribute that suffers when anything goes wrong with the system". In the report "Priorities and Strategies for Education" (1995), the World Bank dealt with education policy issues and made the following observation concerning quality: "Quality in education is difficult to define and measure. An adequate definition must include student outcomes. Most educators would also include in the definition of the nature of the educational experience that helps to produce that outcome - the learning environment" (World Bank, 1995). Quality cannot be seen as a fixed concept. Quality and standards are in fact relative

matters - relative to the particular time and place and particular learners and their circumstances. One important aspect of quality is the relevance of the subjects taught and the objectives of education. Quality education is an education that provides students with the tools to deal with and find solutions to the challenges facing mankind (ETUCE, 2002). Quality, therefore, is a concept that takes on different meanings in different situations; however, it is essential for effective teaching and learning for meeting educational goals

According to Darling-Hammond (2000), variables recognized to be indicative of teachers' competence which has been examined for their relationship to student learning include measures of academic ability, years of education, years of teaching experience, measures of subject matter and teaching knowledge, certification status, and teaching behaviours in the classroom. However, the results of these studies have been mixed; with some trends emerging in recent years.

### **Teachers' Quality and Students' Academic Performance**

The relationship between teacher experiences as students' achievement receives considerable attention in the empirical literature, with somewhat mixed results. Several researchers said that experience, especially during the first couple of years in the classroom, is positively associated with student achievement in mathematics and reading at the elementary and middle school levels. Several other studies, however, do not detect meaningful differences between more and less experienced teachers (Carr, 2006; Gallagher, 2004). Murname (1995) suggest that topical teacher learning have peaks in a teacher's first few years. Some statistics also review that well prepared begins teachers can be highly effective. For



example, studies of 5 years teacher education program that includes a bachelor degree in the discipline and matters in education, as well as year-long student teaching placement, have found graduate to be more confident than a graduate of 4 years program and as effective as a more senior teacher (Dentan and Peters 1988). Really, teaching experience influences students' achievements. Teachers' experience in teaching plays a very vital role in the achievement of students. Most of the in-experienced teachers become experienced as a result of their years of experience in teaching. Teachers play a vital role in the development of education. The success of any educational system depends largely on the quality of teachers. "A teacher is a maker of man"; "a teacher is a helper and guide".

Glass (2002) reviewed the characteristics of teachers that might be identified and used in the initial hiring of teachers to increase their students' achievement. Glass (2000) stated that teacher characteristics can include qualities of teachers that are viewed as personal-such as mental ability, age, ethnicity, gender and the like - or "experiential"-such as certification status, educational background, previous teaching experience and the like. He claimed that psychometric measures of teacher characteristics are not useful for initial teacher selection implies that candidates be selected by other means - staff interviews, recommendations by peers or past supervisors.

Rivkin, *et al.*, (2008) pointed out the fact that high-quality teachers can offset a substantial portion of disadvantage related to family economic and social circumstances. Hanushek *et al* (2008) pinpoint the experience gains arising during the first year of teaching with essentially flat impacts of experience subsequently. Consequently, misspecification of the relationship between outcomes and

experiences likely contribute to the failure and find a systematic link between quality and experience. Aduwa (2004), the determinants of students' academic success reported that students' home environment, their cognitive abilities, self-esteem, self-concept, study habits and motivation affect their academic success. The peer group to which the students belong to plays a significant role. That is if a child is lucky to find himself in a peer group that is more serious and concentrate on their studies, the result will be excellent. The teacher training program is a vital factor that influences the achievements of students.

The education commission (1964-1966) said "A sound program of professional education of teachers is essential for qualitative improvement of education. Investment in teacher education can yield very rich dividends because the financial resources required are small when measured against the resulting improvement in the education of millions. The National Policy of Education States, "No education system can rise above the quality of teachers in the system". (FGN, 2006). Ogunsaju (2004) states that the academic standard in all Nigerian educational institutions has fallen considerably below expectations. Blumende (2001) corroborated this view when he reported that the decline in the quality of education cannot be ignored by anyone aware of the significant role of education as an instrument of societal transformation and development. There is a great need for the training and re-training of teachers for the improvement of students' performance.

### **Empirical Review**

According to Darling-Hammond (2000) in her book, "Teacher Quality and Student Achievement": "while student demographic characteristics are strongly related to student performance at the state



level, they are less influential in predicting academic performance levels than variables accessing the quality of the teaching staff. Teacher quality variables appear to be more strongly related to students' academic performance than class size or teacher salaries. According to Sanders (1999) "the single biggest factor affecting academic growth of any population of students is the effectiveness of individual classroom teacher. The teacher's effect on academic growth downsize and renders as trivial all these other factors that people have historically worried about." Other findings from value-added Research and Assessment centre show that "teachers are the single most important influence on student progress, and even greater determining to factor them socio-economic status and school location (Archer 1999)". Another finding that supports the above assertions comes from Archer (1998) in his book „The Link Higher that Score Education Week“, who reported that researches in a Dallas school have shown that "having a less qualitative teacher can significantly lower a student's performance over time, even if the student later gets more competent teachers." this assertion could be very interesting considering the nature of our schools here in Nigeria generally and in Kano, Quite several researchers have argued that teacher quality is a powerful predictor of students' academic performance.

According to Darling Hammond (2000) in her analysis of teacher preparation and students' academic achievements across the states, narrated that "measures of teacher preparation and certification are by far the strongest correlates of students' academic achievement in subjects." She contended that measures of teacher quality are more strongly related to students' academic achievement than other kinds of educational investments such as reduced

class size, overall spending on education teacher remuneration.

In contrast to the approach used by Darling Hammond, which equates teacher quality with specific qualifications, Rivkin, *et al.*, (1998) in their book „Elementary and Secondary Education Teacher Quality and changes Initial Teacher Training identify teacher quality in terms of student academic performance results. Their research identifies teacher quality as the most important school-related factor influencing students' academic achievement. From the analysis of 400,000 students in 3000 schools conducted by them, they conclude that, while school quality is an important determinant of students' academic achievement, the most important predictor is teacher quality.

## METHODOLOGY

### *Research Design*

The descriptive survey design was used to conduct the study. This design involves drawing a sample from the population of interest and measuring the characteristics of the sampled members. It is used to obtain information concerning the current status of the phenomena to describe "what exists" concerning variables or conditions in a situation (Key, 1997).

The study population was the entire senior secondary schools in Maiduguri metropolis. In selecting the various schools in the metropolis, the lottery type of the simple random sampling method was used. This sampling method allowed each school to be selected. The Statistical Section of the Metropolitan Education Office was contacted for the list of schools and teachers. This was used to prepare the sample frames for the schools and teachers. After preparing the sample frame, the schools were represented with numbers and the numbers were written on pieces of papers, folded and thoroughly mixed in a basket. Sampling was conducted



without replacement and 30 out of the 97 senior secondary schools in Maiduguri Metropolis were randomly selected.

Stratified sampling method was used to select the participants. They were put into 11 different strata based on the educational circuits in which they teach. The names of teachers in each stratum were represented with numbers and the lottery type of simple random sampling method was used to sample them. This process was repeated till the teachers in the other strata were sampled. In all 371 participants out of 1236 participants were selected for the study.

The instrument used to collect data was questionnaire. The questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals. According to Amedahe (2007), the questionnaire is a very concise, replanted set of questions designed to yield specific information to meet a particular need for research information about a pertinent topic. The questionnaire was used because it can be completed at the respondents' convenience, has wider geographical coverage and offer greater assurance of anonymity so can elicit more candid and more objective replies.

The questionnaire was divided into six sections. The first section elicits information on participants' bio-data. It consisted of ten closed-ended items. Sections two were on qualities of teachers and were of Likert scale type. The responses ranged from "strongly agree" to "strongly disagree" and the items were on pedagogical skills of the teacher, teacher's experience/teacher's retention, subject matter content and teacher's qualification. The Likert scale consisted of twenty- six items. The last section was on opportunities for staff development in the Metropolis and it consists of six items.

Copies of the questionnaire were administered personally to the

participants in their schools. Before administering the questionnaires to the participants, the purpose and significance of the study were made known to them. After the administration of copies of the questionnaire, participants were allowed some time to respond to the items in the questionnaire. After that, the questionnaires were collected on that same day. The rate of return was a hundred per cent. The relative importance of the study as determined by the respondents and the quality and design of the questionnaire are the factors that affect the percentage rate of return of copies of the questionnaire (Key, 1997).

Standard deviations and means were used to analyze data on qualities of teachers while the Pearson Product Moment Correlation Coefficient was used to determine the relationship between teachers' quality and students' academic performance. The level of significance chosen for decision making is 0.05.

## RESULT AND DISCUSSION

This study was conducted to determine the relationship teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis, Borno State, Nigeria. The study employed both descriptive and inferential statistics. The descriptive statistics were used to compute the mean and standard deviation of the variables under study while inferential statistics (Pearson Product Moment Correlation Coefficient) was used to test the hypothesis at 5% level of significance. The results were presented in the table and discussed according to the research hypothesis.

**Hypothesis One (H<sub>01</sub>):** There is no significant relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis.



**Table 1:** Result of Pearson Product Moment Correlation on Relationship between Teachers' Quality and Students' Academic Performance in Senior Secondary Schools, Maiduguri Metropolis, Borno State, Nigeria

Variable	n	$\bar{x}$	SD	DF	r	P-Value
Teachers' Quality	371	128.4000	82.42754	369	0.961	0.009
Academic Performance	371	160.0000	105.38264			

Source: Field Survey, 2020

The result in table 1 indicates a significant relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis, Borno State, Nigeria. This is because the probability value ( $P = 0.009$ ) is less than alpha ( $\alpha = 0.05$ ) level of significance at a correlation index  $r = (0.961)$ , sample size ( $n = 371$ ), degree of freedom (369), mean (128.4000, 160.0000) and standard deviation (82.42754, 105.38264) respectively. Hence, the null hypothesis which stated that there is no significant relationship between teachers' quality and students' academic performance in senior secondary schools in Maiduguri Metropolis is hereby rejected at 0.05 level of significant ( $P < \alpha$ ). This means that there was a significant relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis, Borno State, Nigeria. This finding supports the finding of Darling Hammond, which equates teacher quality with specific qualifications, Rivkin, *et al.*, (1998) in their book, Elementary and Secondary Education Teacher Quality and changes Initial Teacher Training identify teacher quality in terms of student academic performance results. Their research identifies teacher quality as the most important school-related factor influencing students' academic achievement. From the analysis of 400,000 students in 3000 schools conducted by them, they conclude that, while school quality is an important determinant of

students' academic achievement, the most important predictor is teacher quality.

### CONCLUSION AND RECOMMENDATIONS

From the results of the study, it could be concluded that there is a significant relationship between teachers' quality and students' academic performance in senior secondary schools, Maiduguri Metropolis. Teachers' quality is one of the determinants of students' academic performance in senior secondary schools, Maiduguri Metropolis. The researcher recommended that school administrators should make instructional materials available to make learning easier and also invite resource persons that can help educate teachers on the procedures and uses of those materials and Borno state ministry of education should organize workshops and seminars to re-train teachers on the proper implementation of the curriculum in senior secondary schools in Borno State.

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