

## **Teacher Variables and School Effectiveness in Ekiti State, Nigeria**

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### **Abstract**

*This research investigated teacher variables and school effectiveness in Ekiti state, Nigeria. The researchers employed ex-post-facto and descriptive research designs of survey type. It was an expo-facto because there was no manipulation of variables but a study of independent factors as they influenced or affected effectiveness issues in schools and among teachers in Ekiti State. Two sets of measuring instruments were constructed. These are teachers Self-Report Inventory (TSRI) and Teaching Effectiveness Questionnaire (students' version) (TEQ). It was found that majority of secondary school teachers in Ekiti State were professionally qualified. The ratio of teacher to students was also within acceptable range, but their teachings were not effective. Majority of qualified teachers were teaching in urban/city schools. There were significant differences in the effectiveness of (i) urban and rural teachers (ii) male and female teachers (iii) arts, science and Business education teachers. It was therefore recommended that some variables like sex, experiences, qualifications and locations should be considered before posting teachers by the concerned bodies and Teachers in the rural areas should be motivated.*

**Keywords:** Teacher Variables, School Effectiveness, teacher qualification, Urban and Rural

### **Introduction**

Teaching is seen as “scientific process because teaching involves the systematic planning and programming of instruction and experience and the use of technological tools that will lead learners to acquire certain new and valuable skills, knowledge and competences both mental and physical” It is therefore a necessity for academic and professional qualification of teachers not to be over emphasized in effective teaching and learning process. Adelowokan and Makinde (2011) argued that teachers’ experience tends to reflect in class control and ability to meet up with the needs of individual students. The length of teaching experience has been an important factor determining how effectively the teaching-learning process in a school has achieved. Adeyemi (1998), Miles, Skipworth and Lindup (1972) reiterated that “experience improved teaching skills” and that pupils tend to learn better at the hands of a teacher who has taught them continuously over a period of years. This is because teachers’ belief and theories of teaching are guided by their previous experience. Miles et al (1972) concluded that experienced teachers’ perceptions of their teaching objectives were significantly more subject-oriented than were those of first-year teachers.

The relationship between teaching experience and internal efficiency of schools has been examined by many researchers. Razouki (1987) for instance, conducted a study on the analysis of socio-economic factors on students’ academic achievement in Iraq and found that teaching experience correlated significantly and positively with student outcome. Kwari (2007) examined the relationship between selected variables and students’ achievement in Sokoto State, Nigeria in a bid to determine which of the predictor variables were statistically significant. He chose a sample of 20 schools, 700 teachers and 6 officials of the Ministry of Education at random and utilized multiple regressions to test his hypotheses. According to his findings, teaching experience was significantly related to students’ achievements. Ayodele (2005) revealed that a sizeable proportion of 64 studies that reported on the relationship between teacher degree level and student achievement found, that achievement is lower in classes where the teacher possesses an advanced degree. Contrary to this finding, some studies have shown that a positive relationship exists between teachers’ qualifications and students’ performance. Nyikana (1982) found that inadequate qualifications of teachers contribute to repetition in the Ciskei study.

In the same vein, Olutola (1989) found a positive relationship between teachers' qualifications and students' academic achievement. In a related development, Okpala, and Onocha, (1995) found that a highly significant relationship exists between teachers' qualification and global wastage ratio in Basic Education in Reuks (1992) also observed that the utilization of unqualified and under qualified educators in South Africa impacts negatively on the quality of teaching with its implications on performance. Perhaps it is in recognition of the positive relationship between teacher qualification and academic performance that Obemeata (1995) suggested an improvement in the staffing situation in terms of quality and quantity with a view to improving learning and raising the level of achievement in Nigerian schools. Also, Adesina (1983) remarked that the heart of Nigerian educational system is the teacher. According to him, the teacher is and will continue to be both major indicator as well as the major determinant of quality education. In some situations, where there are inexperienced teachers, and students are mal-treated, students may lose interest their teachers, which tends to increase stagnation or school dropout.

The teacher is regarded as one of the greatest inputs into the educational system..Teachers are recognized as the most important school factor affecting student achievement (Sass, Hannaway, Xu, Figlio, and Feng 2010). Teachers facilitate effective teaching and learning. At the same time, poor academic performance of students can be blame on teachers. This is because the ability of a teacher determines his capabilities based on the level of his exposure through training and skills learnt. In consonance with the above, Ajayi (1995) claimed that the poor quality of teachers in Nigerian schools can be traced to poor training received in teacher training institutions through obsolete materials and equipment. According to Nwagwu (1979), hostile school environments that are joyless with pretty oppressive demands contribute to the dropout of learners from school. The teacher is one of the environmental factors within the school. A teacher is thus considered to be a leader whose quality is seen in his ability to initiate ideas and structure, organize and manage his classroom, increase students' skills and knowledge, prepare and present interesting and yet challenging lessons, guide students to success and have the ability to assess and evaluate students' learning correctly. Many studies have examined teacher effectiveness and students' academic performance. Such studies include those of Okpala and Onocha (1995), and Williams (1965) which sestablished a significant link between pupils performance and teacher effectiveness, and between teacher performance and classroom atmosphere.

Using a sample of 337 schools in IOWA to investigate the relationship between students' performance and teacher effectiveness, Coleman, Hoffer and Kilgore (1981) reported that teachers' variables are associated with increment of student achievement. Similarly, other studies such as those conducted by Aladejana and Odejobi (2006) indicated that professional qualification, teaching experience, age and sex of integrated science teachers are related to students' achievement. In a research involving 1280 forms iv and v secondary school students and 191 teachers in Kwara State, Nigeria, Awoyemi (2012) reported that teacher characteristics in terms of qualification, choice of career, age, marital status, and years of teaching experience had significant influence on teacher effectiveness. Also, the quality of teachers determines their efficiency level. It is necessary for any school to have enough qualified teachers. Thus it is not the number that matters but the level of their quality. The National Policy on Education (2004) recommended a minimum of National Certificate in Education for appointment as a teacher in primary and junior secondary schools in Nigeria. Williams (1965) studied wastage in Guatemalan primary schools vis-à-vis teacher qualification; and reported that the proportion of qualified teachers falls below 33% (with a teacher-student ratio of approximately 1 to 33). In some studies on wastage, the students' major reasons for withdrawing from schools were traced to incompetence or lack of professional training of some teachers (Babalola, 2003).

### ***Significance***

This research will be a major means of identifying variables to be considered before engaging in distribution of teachers in Ekiti State secondary schools. Variables like location, sex and qualifications are identified as part of variables to be considered before teacher distribution. Hence this research would serve as eye opener to stake holders in ensuring that these variables are considered before posting teachers.

### **Research Questions**

For the purpose of this research, the following questions were raised;

1. To what extent do teachers' qualifications and gender enhance school effectiveness in Ekiti State?
2. What is the difference between the effectiveness of;
  - male and female teachers?
  - urban and rural teachers?
3. Is there any difference in teacher effectiveness according to their disciplines or subject specializations?

### **Methodology**

The researchers employed ex-post-facto and descriptive research designs of survey type. It is an expo-facto because there was no manipulation of variables but a study of independent factors as they influenced or affected effectiveness issues in schools and among teachers in Ekiti State. The population for the study consisted of all the secondary school students and teachers in Ekiti State. The state has 16 local government areas. Using stratified random sampling technique, two schools were randomly selected from each stratum (local government area) to give a total of 32 schools.

### **Instrumentation**

Two sets of measuring instruments were constructed. These are:

1. Teachers Self-Report Inventory (TSRI)
2. Teaching Effectiveness Questionnaire (students version) (TEQ).

The Teacher Self-Report Inventory (TSRI) has two sections. Section A elicits bio-data information from respondents while section B consists of 45 items, soliciting information from teachers (self - rating), using a four point Likert scale: Always, Sometimes, Seldomly and Rarely. The inventory was divided into 4 sub headings: A – preparation, B – presentation, C – assessing learners' skills and D – classroom management. The inventory was designed to assess responses on the four major duties or activities of a classroom teacher. The Teaching Effectiveness Questionnaire (TEQ) (student version) was adapted from Hong Kong Baptist University's (2008) Teacher Effectiveness Questionnaire. TEQ contains 35 items. Students are given the opportunity to rate the proficiency and commitment of their teachers in items like: your teacher had always presented the subject matter in a well-organised manner; he ensures students gain mastery of the content of instruction; your teacher comes to class punctually; he motivates students for higher studies e.t.c. Students were to rate their teachers on a four-point scale of strongly agree, agree, disagree, or strongly disagree.

### **Validity of Instruments**

Three out of the four instruments were subjected to validity with the help of experts in the areas of Educational Psychology and Educational Evaluation. The instruments were subjected to face, content and construct validities. For the face validity, the experts ensured that the instruments contained appropriate items that could elicit factors that could determine the level of effectiveness of both the school and the teachers. The fourth instrument; the Documentary Evidence inventory was not subjected to validity procedures because it had already been validated in a previous study by Adu (2010).

### **Reliability of Instrument**

The instruments were trial-tested on a small sample of students drawn from four secondary schools that shared similar characteristics with the target samples. The reliabilities of the three instruments were estimated using Cronbach Alpha to ensure internal consistency. The reliability coefficients obtained were TSRI = 0.88, TEQ = 0.92 and SEQ = 0.87

### **Data Collection**

Data on students' academic performance were collected from the results of secondary school students in their West African School Certificate Examination (WASCE) covering a period of five academic sessions, 2007/2008 to 2010/ 2011.

Responses of students from sampled schools and their teachers and Heads of schools to questionnaire items were collected and scores were assigned to each point on the Likert- scale as follows: Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1. Teacher Self-Report Inventory (TSRI) was scored as follows; Always = 4, Sometimes = 3, Seldomly = 2 and Rarely = 1.

### Data Analysis

Data were analysed using descriptive and inferential statistics. Hence, descriptive statistics such as mean and standard deviation and inferential statistics such as Pearson Product Moment Correlation Coefficient, Student-t test, Correlation Matrix, Regression and ANOVA were used.

### Results

Research Question 1: To what extent do teachers' qualification and gender enhance school effectiveness in Ekiti State? The distribution below shows the demographic characteristics of respondents according to qualification, sex and school location. The data on teachers qualifications describe the qualities of teachers in the state. The data are computed using percentages. The results were presented in Table 3.

**Table 1: Distribution of Teachers by Qualifications, Sex and School Location**

	NCE Holders		B.Ed /B.A. /B.Sc		Others		Total
	male	female	Male	female	male	female	
	56	65	71	91	5	-	288
Urban	24	55	29	60	-	-	168
Rural	32	10	42	31	5	-	120

Out of 288 teachers sampled for the purpose of this study, the table shows that 121 (or 42.0%) possessed Nigerian Certificate in Education (NCE); 162 (or 56.3%) had university degrees. The university graduate teachers had Bachelor Degrees (B.Ed, B.A/B.Sc.) in either education, arts, sciences, social sciences or vocational and technical education. Very few other personnel were teaching with Masters Degree (M.Ed) while some had Higher National Diploma with PGDE. None of the teachers possessed less than the minimum required qualification needed for teaching in secondary schools. National policy on Education (1981) prescribed NCE as the minimum qualification for teachers in secondary schools in Nigeria. While NCE holders were designated to teach at Junior Secondary School, University degree holders were to handle the senior secondary school students. In accordance with the National Policy on Education (1981) the quality of teachers in Ekiti State is quite commendable. The table also indicates that the secondary schools teachers were composed of both sexes; males and females. In the NCE category, 56 (46.3%) of the 121 teachers were males and 65 (53.7%) were females. Whereas within Degree holders category, 71 (43.8%) were males while 91 (46.2%) were female teachers.

It was however observed that a large number of the teachers, especially females, (115 females to 53 males) were located to teach in urban cities. For instance, 55 NCE female teachers were engaged in urban cities to 10 females who did teaching in rural areas. This is against 32 male NCE teachers who stayed in the rural schools. A similar pattern was maintained with university degree holders. 60 (or 65.9%) of the 91 female graduate teachers had their locations in urban cities to 31 (or 34.1%) females who were in rural areas, whereas 42 male graduate teachers had their schools in cities. In all, 168 (58.3%) of the 288 teachers sampled were engaged to teach in urban cities to 120 (41.7%) who were located to teach in secondary schools in rural towns and villages. In the distribution where majority of teachers (mostly females) remain in cities is far from being proportional. This action demoralizes the unlucky few teachers mostly males teaching in rural villages. The resultant psychological depression may have negative effect on school effectiveness

Ho<sub>2</sub>: there is no significant difference between the effectiveness of;

- I. male and female teachers.
- II. urban and rural teachers
- III. In testing this null hypothesis, data were collected using Teaching Effectiveness Questionnaire.

Results were analysed on the bases of sex (male and female) and location (urban and rural). The data were tested using t- test statistic. The results are presented in table 2

**Table 2: Difference in Measures of Effectiveness in terms of Location and sex of Teacher**

		N	X	SD	df	t <sub>cal</sub>	t <sub>cr</sub>
Sex	Male	132	65.22	5.61	286	12.52	1.96
	Female	156	57.48	4.73			
Location	Urban	168	58.64	6.48	286	15.62	1.96
	Rural	120	49.27	3.63			

Table 2 shows measures of differences in teachers' effectiveness when locations and sex of teachers were put into consideration. The table shows that there was a significant difference between male and female teachers effectiveness. The calculated t-value of 12.52 is greater than the critical t-value of 1.96 at 0.05 level of significance. Also with a mean value of 58.64 for urban teachers to 49.27 for rural teachers the calculated t-value of 15.62 is greater than the critical t-value of 1.96 at 0.05 level of significance. This gave an indication of an existence of significant difference between effectiveness of teachers in urban and rural locations. Hence, the null hypothesis which states that there is no significant difference between the effectiveness of (i) male and female teachers and (ii) urban and rural teachers is rejected in favour of the alternative hypothesis.

Ho3: there is no significant difference in teachers effectiveness according to their disciplines or subject specializations.

In testing this null hypothesis data were collected using Teaching Effectiveness Questionnaire. Results were analysed on the bases of subject disciplines i.e. Arts, Science and Business Education Teachers. The results are presented on table 3 below.

**Table 3: Analysis of Variance (ANOVA) of Difference in Teachers Effectiveness According Subject Specializations**

Source	SS	Df	MS	F	Sign
B/W Group	72.01	19	3.79	8.47	0.00
Within Group	119.98	268	.44		
Total	192.00	287			

The ANOVA table shows that there was a significant difference in teachers effectiveness among Arts, Science and Business Studies Teachers ( $F = 8.47, P < 0.05$ ). Thus the null hypothesis was rejected.

### Discussion

It was shown in this study that there was a significant difference between male and female teachers' effectiveness. This implied that the sex of the teacher influences the level of his/her effectiveness. The result is contrary to the findings of Amit and Sorj (2012) where both male and female teachers were found to exhibit equal level of teacher effectiveness. However, the study of Ajayi (1999) showed that female teacher's job mean performance was greater than that of male teacher and that female teachers had higher level of job performance. The difference obtained between male and female teachers' effectiveness in this present study can be due to the fact that male teachers were more committed to their teaching jobs than their female counterpart who now engage in extra business like trading during breaks and outside the classroom to earn additional money. The findings of this research show that there was a significant difference between urban and rural teachers' effectiveness. This result agrees with those of Reuks (1992) and Abduliah and Onasanya (2010) that senior secondary school students in urban areas had higher means in term of performance than students in semi-urban and rural areas. Analysis of posting of teachers in this study showed that there was a high concentration of teachers in terms of numbers and sex in urban cities compared with those teachers teaching in rural areas. The study revealed that a large number of the teachers, especially females, (115 females to 55 males) were posted to teach in urban cities. For instance, 55 NCE female teachers were engaged in urban cities to 10 females in rural areas. This is against 32 male NCE teachers who stayed in the rural schools. Hence the ratio of teachers to students is usually low in urban areas, whereas teachers have to face large crowd of students in rural areas. Another possible factor can be attributed to the effect of proximity of the Ministry of Education or Education Headquarters to teachers in urban schools. Occasional surprise visits of some ministry of Education officials to those schools make the teachers in urban schools to be constantly at alert to their responsibilities.

## **Conclusion**

This is based on the fact that teacher variables contribute to the level of teacher effectiveness, which eventually impact positively or negatively on educational attainment of learners.

## **Summary of Major Findings**

This study assessed school and teacher effectiveness issues in Ekiti State, Nigeria.

Major findings of the study are presented below.

- I. The majority of secondary school teachers in Ekiti State were professionally qualified; most of them had university degrees or a minimum of NCE. The ratio of teacher to students is also within acceptable range, but their teachings were not effective.
- II. Majority of qualified teachers were teaching in urban/city schools.
- III. There were significant differences in the effectiveness of (i) urban and rural teachers (ii) male and female teachers (iii) arts, science and Business education teachers.

## **Recommendations**

Based on the findings of this study, is therefore recommended are:

- I. Some variables like sex, experiences, qualifications and locations should be considered before posting teachers by the concerned bodies.
- II. Teachers in the rural areas should be motivated
- III. There should be effective monitoring of teachers for the purpose of effectiveness

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