Teachers and Students' Academic Performance in Nigerian Secondary Schools: Implications for Planning

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This paper examined the number of qualified teachers and its relationship to students' academic performance in public secondary schools in a sample of Local Government Areas (LGA) of Osun State. This descriptive study used a post-hoc dataset. An instrument titled "Quantity and Quality of Teachers and Students' Academic Performance" (QQTSAP) was used for the study. Twenty-one (21) public secondary schools, one in each LGA from a population of thirty-one (31) LGA in the State, were sampled. The Senior School Certificate Examination results from 2000/01 to 2004/05 were used to analyze students' academic performance and reflected some concerns in the school system. The data were analyzed using ANOVA and Spearman rank correlation coefficient to test the three operational hypotheses. Findings of this study showed teachers' qualifications, experience and teacher–student ratio were significantly related to students' academic performance. These findings can be used to guide planners about the need for qualified teachers to facilitate effective teaching and learning in secondary schools in Nigeria.

Key Words: Teachers, Quantity, Quality and Students' Academic Performance

Introduction

In Nigeria public discussions frequently focus on educational standards.. The public's unhappiness becomes more prominent following the annual release of the West African Senior School Certificate Examination results. Student outcomes do not match the government and parental investment. All stakeholders are concerned about why the system is turning out graduates with poor results. To them, it is questionable whether or not teachers in the public secondary schools, the most important factor in the effectiveness of schools and in the quality of a child's education are competent to teach effectively. 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 societal expectations. Blumende (2001) corroborated this view when he reported that the decline in the quality of education cannot be ignored by anyone who is aware of the significant role of education as an instrument of societal transformation and development. There is a need to focus on teachers' adequacy and competency in respect to their pedagogical practices and strategies and mastery of the curriculum and subject content (Chall & Popp, 1990; Stuart, 2004; Rodgers, 2001). In support of the aforementioned scholars, Ekwesili (2006) institutionalized the Private Public Partnership (PPP) and School Based Management Committee (SBMC) to manage secondary education and to promote school effectiveness since students' success depends on the amount of learning that takes place in the classroom and other related 'how effective and efficient the teacher performs in schools'. Ijaiya (1998) concurred and opined that improving the quality of the teaching force in schools is seen as the key to raising student achievement. Thus, raising educational standards should be the government's number one priority. Similarly, Lassa (2000) and Guga (1998) claimed that education can not be provided by just anybody, it requires a teacher who plans and delivers the lessons or instruction in such a way that objectives can be achieved. An uncertified teacher cannot prepare students for WASCE/GCE because it is unlikely that they could pass. Corroborating this, Owolabi (2007) stated that government should find all possible means to retain veteran and experienced teachers who are still willing to serve so that they can contribute their wealth of experience to improving the system. The Baguada Seminar Reports on Quantities and Qualities in Nigerian Education (NERC, 1980) as cited by ESA, (2005) also shared the consensus that teachers are the main determinants of quality in education:

> If they are apathetic, uncommitted, uninspired, lazy, unmotivated, immoral, and anti-social, the whole nation is doomed. If they are ignorant in their disciplines and thus impart wrong information, they are not only useless but dangerous. Therefore, the kind of teachers trained and posted to schools may well determine what the next generation will be like.

Based on the aforementioned statement, this study examined the relationship between the quantity and quality of teachers and students' academic performance. Teachers can make or mar the school curriculum; therefore, their adequacy and quality for better service delivery needs to be assessed on a regular basis. Findings of this study will provide educational planners and administrators with adequate information about teachers' availability and how this affects productivity in public secondary schools in Osun State. It will likewise assist in establishing corrective measures with

respect to some disadvantaged schools to ensure equity and uniformity in posting of teachers to schools in the state and improve the system productivity.

Review of Literature

In their study on "'Measuring and Targeting Internal Conditions for Schools Effectiveness in the Free State of South Africa", Abraham and Keith (2006), used a questionnaire as the basis for constructing an index of school effectiveness. Their findings revealed that teachers were the key drivers of internal school conditions for effectiveness, development and school change. Oshodi (1991) investigated resource utilization and students academic performance in Kwara State secondary schools using a questionnaire. Spearman rank correlation coefficient was used to determine the most influential factor on students' academic performance. He found that the quality of teachers was the most important determinant of students' academic performance in secondary schools.

Ijaiya (1998) investigated the problems of teacher staffing in Kwara State secondary schools and found that there is an acute shortage of teachers in Kwara State secondary schools thus contributing to massive failures as well as poor quality teaching. In a study of relationship among school size, resource utilization and school effectiveness in Ilorin Local Government Areas, Ibitoye (2003) discovered that there is a significant relationship between enrollment, utilization of classrooms provided for teachers, the teaching of learning activities and students academic performance. In the same way, Akpofure and N'dipu, (2000), reported the need for schools to maintain a manageable carrying capacity in utilization of classrooms, libraries and laboratories for effective teaching and learning. To them, this will pave the way for quality assurance in schools. A similar study by Aduwa (2004), on determinants of students' academic success, reported that a student's home environment, their cognitive abilities, self-esteem, self-concept, study habits and motivation affect their academic success. Contrary to this, Iyamu (2005) contended that the provision of all these factors may not have significant impact on successful learning if the learners are not exposed to competent principals, teachers and other school teams. Also Ehrenberg and Brewer (1995) and Ferguson (1991) asserted that students learn more from teachers with strong academic skills. According to these researchers, teachers' assignments depend on their qualification of the subject(s) being taught. Middle and high school students learn more from teachers who hold Bachelor's or Master's degrees in the subjects they teach and from experienced teachers than they do from less experienced ones (Darling- Hammond, 2000).

In a study on human resource and organizational achievement, Egungun (1992) found that the placement of only the right employees in the right jobs, at the right time and places assist greatly in attainment of organizational set goals and objectives. Also, the Education Sector Analysis Study (2005) on selected secondary school teachers in Nigeria by qualifications and genders revealed that the bulk of secondary school teachers (n = 69,787) were graduates with first or higher degrees where, 43,073 were male and 26,714 were female. Among these teachers, 15,353 had no teaching qualification while the rest were held the Associate Certificate in Education and TC II. Findings from this study also revealed that the unqualified teachers' proportion affects the quality of learning delivery in the sampled schools.

Amoo (1992) reported that there were wide gaps between the demand and supply of qualified teachers in Osun state. Shortage of qualified teachers as revealed by the findings of his

study was expressed as 44% in the 1978/80 sessions, 56% in the 1980/81 sessions and 51% in the 1981/82 session. He recommended that the state government ensure the funding of the State Colleges of Education so that they could train well-qualified teachers and address the problem of teacher shortage.

In her study on internal efficiency of Osun State public secondary schools from 1997/98 to 2002/2003, Akinsolu (2005) reported that Osun state public secondary schools experienced wastage. She stressed further that out of every one Nigerian Naira (₦1) spent by the government, 45 Kobo (₦ 0.45) was wasted in the period of study as a result of high repetition, high failure and dropout rate in the system. In the Organisation for Economic Cooperation Development (OECD) (1998) study on school and quality, the authors reported that there are many factors that contribute to quality in education; such as students and backgrounds, staff and the ethos, curriculum and social expectations within the schools.

As the literature described here suggests, teachers are a vital pre–requisite for student attainment of educational goals and objectives. These studies serve as a springboard for this study that investigated whether there is a relationship between the quantity and quality of teachers and students academic performance in Osun State public secondary schools.

Statement of Purpose

This study focuses on the following objectives.

- To establish whether there is a relationship between teachers' qualifications and students' academic performance in the sampled public secondary schools in the selected LGAs in Osun State.
- To establish whether there is a relationship between teachers' years of experience and students' academic performance in the sampled public secondary schools in the selected LGAs of Osun State.
- To establish whether there is a relationship between teacher – students ratio and students' academic performance in the sampled public secondary schools in the selected LGAs of Osun State.
- To make suggestions for education planner policymakers in the state Teaching Service Commission and SMOE for improved planning and management of teachers that would facilitate teaching and learning and lead to for higher productivity in the state public secondary schools.

Research Questions

1) What is the status of teacher supply in terms of qualification in the selected public secondary schools in Osun State?
2) What is the extent of teachers' utilization rate in the selected public secondary schools in Osun State?
3) What is the position of teachers' years of experience in the selected public secondary schools in Osun State?

4) What is the students' academic performance on the Senior Secondary Certificate Examination (SSCE) within the selected public secondary schools in Osun State between 2000/2001 and 2004/2005?

Methodology

The research design employed in this study was a descriptive survey involving the use of a questionnaire, unstructured interviews and documents.

Sample and Sampling Technique

The population of this study included the two hundred and ninety (290) public secondary schools in the 31 LGAs in the state. Stratified random sampling technique based on the existing three senatorial districts in the state was used to sample 21 of the31 LGAS (68%). Purposive sampling was also used to sample one public secondary school in each of the sampled LGAs to give a total of 21 sampled schools. The teachers (n = 991) within these schools were the survey respondents.

Instrumentation

The instrument used for this study was a questionnaire titled 'Quantity and Quality of Teachers and Students' Academic Performance' (QQTSAP). It contains two sections; Section A elicited responses to the following: availability of teachers, teachers' years of experience and qualifications in the sampled secondary schools. Section B considered students' academic performance from 2001 to 2005. Other relevant data such as students' enrollment and each school's SSCE result analysis were obtained from the school records and TESCOM. Faculty in the Department of Educational Administration and Planning and experts in test construction of Obafemi Awolowo University (OAU), Osun State were used to validate the the face and content validity of the instrument. Test-retest method was used to establish the reliability of the instrument reliability. A reliability coefficient shows an r – value of 0.71 using Pearson product moment coefficient. The results implied high reliability.

Research Hypotheses

1) There is no significant relationship between teachers' qualifications and students' academic performance in the sampled public secondary schools.
2) There is no significant relationship between teachers' years of experience and students' academic performance in the sampled public secondary schools.
3) There is no significant relationship between teacher-students ratio and students; academic performance in the sampled public secondary schools.
4) There is no significant relationship between the quantity and quality of teachers and students' academic performance in the sampled public secondary schools.

Data Analysis

Data was analyzed based on information obtained from the completed questionnaire. The researchers analyzed the data using descriptive and inferential statistics. Descriptive statistics used were mean, ranking, percentage and standard deviation. The inferential statistics used were ANOVA and Spearman Rank Correlation Coefficient Technique. The ANOVA technique was used to test the main hypothesis while Spearman rank correlation coefficient was used to test the operational hypothesis. The five-year (2000/2001 – 2004/2005) SSCE results from each sampled

school were subjected to the following categorization: students with five credits and above including English Language and Mathematics were regarded as successful students while those without English Language and Mathematics were grouped as unsuccessful students. This separation was used because students applying for admission into higher education institutions must pass these two core subjects (English Language and Mathematics). All hypotheses were tested at the .05 significance level.

Results

Research Question 1

What is the status of teacher supply in terms of qualification in the selected public secondary schools in Osun State?

Table 1. Teachers' Quality by Qualification in the Selected Secondary Schools.

Schools	University Graduates w/specialty in Education		University Graduates without specialty in Education		HND with PGDE		HND		NCE		Total
S/N	No	%	No	%	No	%	No	%	No	%	
1	18	33	9	17	4	7	1	2	22	41	54
2	9	24	3	8	-	0	1	3	24	65	37
3	18	41	5	11	1	2	-	0	20	45	44
4	27	42	11	17	2	3	-	0	24	38	64
5	9	26	5	14	-	0	-	0	21	60	35
6	24	42	12	21	1	2	2	4	18	32	57
7	8	33	5	21	-	0	-	0	11	46	24 *
8	29	41`	15	21	3	4	2	3	23	32	72 *
9	21	36	16	28	4	7	-	0	17	29	58
10	18	34	9	17	5	9	2	4	19	36	53
11	27	46	11	17	3	5	1	1	17	28	59
12	26	42	13	21	2	3	-	0	21	33	62
13	20	47	10	23	1	2	-	0	12	28	43
14	19	40	8	17	2	4	1	2	17	36	47
15	10	20	7	14	1	2	2	3	31	61	51
16	18	40	6	13	3	7	-	0	18	40	45
17	15	43	-	0	5	14	1	3	14	49	35
18	11	27	7	17	8	20	-	0	15	36	41
19	9	30	2	7	4	13	-	0	15	50	30
20	21	42	6	12	3	6	2	4	18	36	50
21	12	40	-	0	1	3	2	7	15	50	30
TOTAL	369		160		53		17		392		991

Table 1 shows that School Number 8 had the highest staff strength of 72 compared with all other sampled schools. This could be due to the location of the school at the centre of ancient Ile-Ife city. The school with the lowest staff strength is School Number 7 with a staff of 24. Of the 991 teachers in the selected schools 369 (37%) are graduates with a specialty in education; while 160 (16%) are graduates without a specialty in education. The table reveals that 53 (5%) are HND holders without a post-graduate diploma in Education while 392 (40%) teachers hold NCE certificates.

Although the majority of the teachers hold the NCE, this finding shows that Osun State public secondary schools teaching personnel is not yet in accordance with the ESA report of 2005 that requires that a majority of Nigerian secondary school teachers hold bachelor's and master degrees.

Research Question 2

What is the extent of teachers' utilization rate in the selected public secondary schools in Osun State?

Table 2. Teacher – Students Ratio in the sampled public secondary schools

Schools	Number of Teachers	Number of Students	Teacher-student ratio
1	54	1,850	1:34
2	37	780	1:21
3	44	1,260	1:29
4	64	2,107	1:32
5	35	635	1:18
6	57	1,870	1:33
7	24	975	1:41*
8	72	2,820	1:39*
9	58	1,750	1:30
10	53	1,620	1:31
11	59	2,050	1:35
12	62	2,390	1:39*
13	43	1,212	1:24
14	47	1,720	1:37
15	51	1,915	1:18
16	45	1,010	1:24
17	35	903	1:26
18	41	1,907	1:47*
19	30	535	1:18
20	50	1,215	1:24
21	30	611	1:20

Table 2 illustrates the teacher–student ratio (TSR) in the sampled public secondary schools to determine the utilization of teachers in Osun State public secondary schools. Findings

from this table depict that teacher utilization based on TSR in the sampled public secondary schools is in accordance with UNESCO standard and National Policy on Education with the exception of a few cases where the teacher-students ratios are as high as 39, 41 and 47. The UNESCO standard and the National Policy on Education specify a maximum of 30 and 40 students respectively per teacher (NPE, 2006; UNESCO, 2000).

Research Question 3

What is the position of teachers' years of experience in the selected public secondary schools in Osun State?

Table 3. Teachers' Years of Experience in the Selected Public Schools in Osun State

Schools	Years of Experience								
	1 - 5	%	6 - 8	%	9 - 10	%	10 & above	%	Total
1	9	16	15	28	15	28	15	28	54
2	9	24	11	30	10	27	7	19	37
3	4	9	18	41	12	27	10	22	44
4	20	31	9	14	21	33	14	22	64
5	7	20	13	37	11	31	4	12	35
6	12	21	18	32	16	28	11	19	57
7	6	25	7	29	7	29	4	17	24
8	15	21	18	25	21	29	18	25	72
9	8	14	15	26	20	34	15	26	58
10	17	32	12	23	13	25	8	15	53
11	9	15	14	24	19	32	17	29	59
12	16	26	14	23	18	29	14	22	62
13	9	21	14	33	11	26	9	20	43
14	10	21	13	28	17	36	7	15	47
15	10	20	21	41	9	18	11	21	51
16	8	18	10	22	18	40	9	20	45
17	7	20	9	26	13	37	6	17	35
18	8	20	13	33	11	27	8	20	41
19	5	17	9	30	10	33	6	20	30
20	9	18	15	30	13	26	11	22	50
21	2	7	7	23	12	40	9	30	30
Total	200		275		297		213		991

Table 3 shows that 200 teachers (20%) of the 991 teachers sampled fall in the category of 1-5 years of teaching experience. Another 275 teachers (28%) had between 6-8 years of teaching experience while 297 (30%) acquired between 9-10 years teaching experience. Two hundred and thirteen teachers (21%) reported having 10 years or more experience.

Research Question 4

What is the students' academic performance on the Senior Secondary Certificate Examination (SSCE) of the selected public secondary schools in Osun State between 2000/2001 and 2004/2005?

Table 4. Students' Academic Performance on the SSCE of the Selected Public Secondary Schools between 2000/2001 and 2004/2005

Schools	Average Number of Candidates Presented	Average Number of Students with 5 credits and above including Math and English	Percentage passing
1	168	47	28
2	98	29	30
3	420	115	27
4	83	38	48*
5	204	63	31
6	105	25	24
7	418	154	37
8	181	72	40*
9	115	44	38
10	470	126	27
11	507	189	37
12	457	125	27
13	139	48	35
14	268	91	34
15	210	63	30
16	261	72	28
17	175	88	50*
18	261	81	31
19	97	33	34
20	281	75	27
21	85	21	25

Table 4 indicates students' academic performance in the sampled secondary schools in Osun State. Out of the 21 schools sampled, only three schools (School Nos 4, 8 and 17) were able to produce potential candidates for higher education admittance, with the following percentages: 48%, 40% and 50% respectively.

Testing Hypotheses

HO 1: There is no significant relationship between teachers' qualifications and students' academic performance in Osun State public secondary schools.

Findings shown in Table 5 reveal that there is a positive correlation between teachers' qualification and students' academic performance. The calculated value of 0.892 is greater than the table value of 0.44 at a 0.5 significance level; therefore the null hypothesis is rejected.

Table 5. Relationship between teachers' qualification and students' academic performance in selected public secondary schools

Schools	TQ(x)	Rank(x)	SAP(y)	Rank(y)	D	D^2
1	162	8	28	14	-6	36
2	83	18	30	12	6	36
3	133	13	27	16	-3	9
4	209	2	48	2	0	0
5	86	17	31	10	7	49
6	193	6	24	21	-15	225
7	71	21	37	5	16	256
8	241	1	40	3	-2	4
9	198	5	38	4	1	1
10	164	7	27	16	-9	81
11	207	4	37	5	-1	1
12	209	2	27	16	-14	196
13	155	10	35	7	3	9
14	152	11	34	8	3	9
15	116	15	30	12	3	9
16	141	12	28	14	-2	4
17	106	16	50	1	15	225
18	122	14	31	10	4	16
19	80	20	34	8	12	144
20	160	9	27	16	-8	64
21	82	19	25	20	-1	1
						$\Sigma d^2 = 1, 375$

$$r = \frac{1 - 6d^2}{n(n^2 - 1)} = \frac{1 - 6 \text{ X } 1{,}375}{21(21^2 - 1)} = \frac{1 - 8{,}250}{9{,}240} = 0.892$$

Note:

TQ - Teachers' Qualifications

SAP – Students' Academic Performance

D- Denotes the difference between X-ranking and Y-ranking

D^2 - Denotes the square of the obtained difference

Ho2: There is no significant relationship between teachers' years of experience and students' academic performance in the sampled public secondary schools.

Table 6. Relationship between teachers' years of experience and students' academic performance in selected public secondary schools

Schools	TYE(x)	Rank(x)	SAP(y)	Rank(y)	D	D^2
					-8	
1	144	6	28	14	4	64
2	89	16	30	12	-6	16
3	116	10	27	16	2	36
4	157	4	48	2	8	4
5	82	18	31	10	-14	64
6	126	7	24	21	16	196
7	57	21	37	5	-2	256
8	186	1	40	3	-1	4
9	158	3	38	4	-4	1
10	112	12	27	16	-3	16
11	162	2	37	5	-11	9
12	154	5	27	16	7	121
13	106	14	35	7	3	49
14	115	11	34	8	1	9
15	107	13	30	12	-5	1
16	118	9	28	14	16	25
17	88	17	50	1	5	256
18	99	15	31	10	12	25
19	77	20	34	8	-8	144
20	122	8	27	16	-1	64
21	78	19	25	20		1
						$\Sigma d^2 = 1, 361$

$$r = \frac{1 - 6d^2}{n(n^2 - 1)} = \frac{1 - 6 \text{ X } 1,361}{21(21^2 - 1)} = \frac{1 - 8,166}{9,240} = 0.883$$

Note
TYE- Teachers' Years of Experience
SAP- Students' Academic Performance
D – Denotes the difference between X-ranking and Y-ranking
D^2 - Denotes the square of the obtained difference.

Table 6 reveals that there is a positive correlation (r = 0.883) between teachers' years of experience and students' academic performance. Therefore there is a significant relationship

between teachers' years of experience and students' academic performance. The calculated value of 0.883 is greater than the table value of 0.44 at 0.5 significance level, hence the rejection of the null hypothesis.

H03: There is no significant relationship between teacher–student ratio and students' academic performance in selected public secondary schools in Osun State.

Table 7. Relationship between teacher- students ratio and students' academic performance in selected public secondary schools in Osun State

Schools	TSR	Rank X	SAP	Rank Y	D	D^2
1	34	8	28	14	-6	36
2	21	18	30	12	6	36
3	29	13	27	16	-3	9
4	32	10	48	2	8	64
5	18	20	31	10	10	100
6	33	9	24	21	-12	144
7	41	2	37	5	-3	9
8	39	3	40	3	0	0
9	30	12	38	4	8	64
10	31	11	27	16	-5	25
11	35	7	37	5	2	4
12	39	3	27	16	-13	169
13	28	14	35	7	7	49
14	37	6	34	8	-2	4
15	38	5	30	12	-7	49
16	24	16	28	14	2	4
17	26	15	50	1	14	196
18	47	1	31	10	-9	81
19	18	20	34	8	12	144
20	24	16	27	16	0	0
21	20	19	25	20	-1	1
						$\Sigma d^2 = 1,188$

$$r = \frac{1 - 6d^2}{n(n^2 - 1)} = \frac{1 - 6 \times 1,188}{21(21^2 - 1)} = \frac{1 - 7,128}{9,240} = 0.771$$

Note:

TSR - Teacher- Students Ratio
SAP – Students' Academic Performance
D – Denotes the difference between X-ranking and Y-ranking
D^2 - Denotes the square of the obtained difference.

Table 7 reveals that there is positive correlation between teacher-students ratio and students' academic performance. The calculated value of 0.771 is greater than the table value of 0.44 at 0.5 significance level. This implies a rejection of the null hypothesis.

Ho4: There is no significant relationship between quantity and quality of teachers and Students' Academic Performance in the sampled public secondary schools.

Table 8. Analysis of Variance between Quality and Quantity of Teachers and Students' Academic Performance

Source	df	Ss	Ms	Cal.F.Ratio	F.(Critical)
Between	4	38574.94	12858.31		
Within	17	67353.63	3961.98	3.245	2.84
Total	21	105928.57			

F ratio calculated = $\frac{\text{MSSB}}{\text{MSSW}} = \frac{12858.31}{3961.98} = 3.245$

F ratio critical at 0.05 = 2.84

Table 8 reveals that the calculated F ratio is greater than the critical F value (i.e 3.25 calculated F ratio › 2.84 critical value at 0.05). This implies a rejection of the null hypothesis and an acceptance of alternative hypothesis.

Discussion

The purpose of this study was to establish the relationship between teachers and students' academic performance in Nigerian secondary schools. The findings reveal that the majority of the teachers in these sampled schools at the time of study were NCE holders. This shows that Osun State public Secondary Schools teaching personnel is not yet in accordance with the ESA report of 2005 that stated that the majority of teachers in Nigerian Secondary schools should be bachelors and master degree holders. (See Table 1). This, however, calls for putting in place necessary training for these teachers to prepare them to handle teaching and learning more effectively in the state secondary schools.

The findings for teacher utilization based on TSR in the sampled public secondary schools is in accordance with the UNESCO standard and National Policy on Education except in a few cases where the teacher-students ratios ranged between 39 and 47. The UNESCO standard and the National Policy on Education specify a maximum of 30 and 40 students respectively per teacher (NPE, 2006; and UNESCO, 2000). This is not unique. All states in the federation are forced to

strictly comply with the National minimum standard by the Federal Ministry of Education. Note that the overall policy making body for education in Nigeria).

On the issue of teachers' years of experience in the selected public secondary schools in Osun State, Table 3 shows that 200 teachers (20%) out of 991 teachers in the sampled schools fall in the category of 1-5 years of teaching experience. Two hundred and seventy five teachers (28%) had between 6-8 years of teaching experience while 297 (30%) acquired between 9-10 years teaching experience. There were 213 teachers (21%) in the category of 10 years and above of teaching experience. This finding indicates that teacher's years of experience is a measure of quality and thus becomes imperative in the achievement of students' academic performance. This supports those who advocate that experienced teachers need to be retained in schools if higher productivity is to be obtained because learners achieved more from these teachers.

Table 4 shows students' academic performance in the sampled secondary schools in Osun State. Out of the 21 schools sampled, only three schools (Schools 4, 8, and 17) were able to produce potential candidates for higher education admittance, with the following percentages: 48%, 40% and 50% respectively. This confirms the findings of Akinsolu, (2005), Adeoye (1983) and Ajayi (2003) on the quality of students' performance in West African Senior School Certificate Examinations (WASSCE) where only half of the candidates presented for this examination have ample opportunity of gaining admission into institutions of higher education.

Table 5 reveals that there is a positive correlation between teachers' qualifications and students' academic performance. The calculated value of 0.892 is greater than the table value of 0.44 therefore the null hypothesis is rejected. This finding confirms Darling Hammond (2000) Egungun (1992) and Iyamu (2005) assertion that qualitative education is a function of quality and quantity of teaching personnel within a system. The finding points out that "No Education System can rise above the quality of teachers in the system" as stated in the National Policy of Education (FGN, 2006).

Likewise, Table 6 reveals a positive correlation (r = 0.883) between teachers' years of experience and students' academic performance. There is a significant relationship between teachers' years of experience and students' academic performance. The calculated value of 0.883 is greater than the table value of 0.44, hence the rejection of the null hypothesis. This finding confirms Owolabi (2007), Abraham and Keith (2006) and Darling Hammond (2000) who agree that teachers' years of experience as a measure of quality is important in the achievement of students' academic performance.

On teacher-students ratio and students' academic performance, findings from Table 7 corroborate Ibitoye (2003), Moore (1998), and Akpofure and N'dipu (2000) whose studies revealed that school size and class size was a powerful predictor of students' academic performance. Table 8 reveals that the calculated F ratio is greater than the critical F value (i.e 3.25 calculated F ratio › 2.84 critical value at 0.05). This implies a rejection of the null hypothesis and an acceptance of the alternative hypothesis. This attests to all the previous findings that teachers' adequacy and competency in terms of quality and quantity is a great predictor of learning achievement in Nigerian secondary schools.

Conclusion

This study has shown a positive and significant relationship among quantity and quality of teachers and students' academic performance in the Nigerian secondary schools. This shows that teachers competency and adequacy is a panacea for attainment of educational goals and objectives. It is therefore not out of place for the N.P.E (2006) to have equivocally stated that no educational system can rise above the quality of its teachers.

Implications of the Study for Qualitative Planning

Based on the findings from this study, students' academic performance in Osun State public secondary schools is a concern. This requires prompt attention on the part of the state educational planners and policy makers to improve the academic situation of the state public secondary education from its present state, since most secondary schools in the state operate below specified standards in turning out graduates for higher education.

There is need for each public secondary school to map out its institutional values and goals within the framework of the National Policy on Education Policy thrusts, taking into account the expected trends development in their internal and external environment. This will provide each school a clear view of how it wishes to develop and the means of securing such development. This will also assist greatly in promoting system efficiency thereby paving a way for each public secondary school to operate with minimal wastage.

Recommendations

For qualitative planning of education in the state a meta-level quality assurance mechanism needs to be implemented for continuous monitoring of each public secondary schools' inputs output effectiveness and practices. The following quality planning stages as outlined by Juran (1979) can be adapted for monitoring of learning achievement in Nigerian public secondary schools. The stages include:

- Breakdown of the Quality Assurance mechanism objectives into logical convenient sub-objectives;
- Definition of the deeds to be done;
- Assignment of responsibilities for doing these deeds;
- Establishment of milestones and schedules;
- Description of methods and procedures;
- Provision of facilities, instruments, equipment and space;
- Selection and training of human resources;
- Provision for measurement and reporting of results for control; and
- Provisions for auditing.

These stages will help ensure qualitative learning in schools. In addition, there is need to have School Review Practices in order to guarantee qualified teachers. It is important for each school to have a review team consisting of participants from: the general environment of the school, the students, the teachers, and officials from the ministry of education. This review practice will be based on the domain of teaching and learning as observed by each of the review team members. The purpose of the observation is to gather information about normal practices in schools on a regular basis as a way of improving the quality of teachers in schools. This will assist greatly in ensuring teachers competency, improving academic excellence in schools and also assist teachers

to compete effectively in this constantly changing environment. Such review would also encourage teachers to upgrade their skills on a continuous basis to make them more competent in the delivery of educational services as curriculum implementers.

In addition, teachers need motivation for such improvement and should be provided with all the necessary incentives such as adequate salaries, good working conditions and other fringe benefits that compare favorably with what their counterparts in other professions receive. Such practices will assist greatly in the improvement of teaching and learning in the state public secondary schools and will impact students' academic performance. Additionally, all teachers who are yet to undertake a post graduate diploma in Education should be encouraged to do so. This will enable them to register with the Teacher Registration Council (TCR) and be identified as a qualified teacher. Government should, therefore, intensify its efforts in monitoring learning achievement in schools and likewise provide schools with adequate facilities so as to encourage the effectiveness and efficiency of teachers in Nigerian secondary schools.

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