Teachers' Quality and Internal Efficiency in Primary Schools in Ekiti State, Nigeria

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Abstract
This paper examined teachers' quality and internal efficiency of primary schools in Ekiti State, Nigeria. As an expo facto and descriptive research, the study population comprised all the 694 primary schools in the State. Out of this, a sample of 520 primary schools was selected through the simple random sampling techniques. The head teachers of the 520 primary schools were the respondents in the study. A cohort of 91,061 pupils who entered the schools in 2003 and graduated in 2008 were purposively selected for the study. Two instruments were used to collect data. These were an inventory and a questionnaire. The data collected were analyzed using frequency counts, percentages, Pearson Product Moment Correlation analysis, Chi-Square test, Correlation Matrix, Regression Analysis of Variance and Multiple Regression. It was found that teacher quality had significant relationship with the internal efficiency of primary schools in the State. The best predictor of internal efficiency of the schools was teacher qualifications. It was then recommended that the State government should intensify more effort in the training of teachers in order to acquire higher qualifications that would enhance the internal efficiency of primary schools in the State.
Keyword: Teacher, Quality, Internal, Efficiency, Primary, Schools

Introduction
In the Nigerian school system, teacher quality could be examined in various ways. It could be examined in terms of teacher's qualification and teachers' competence (Akinwumiju, 1995). It could also be examined in terms of teacher's status, teachers' teaching experience and teacher's dedication to duty (Adeyemi, 2007). It could as well be examined in terms of teacher's integrity and teacher's job performance (Wilson & Pearson, 1993; Ayodele, 2000).

In this regard, the teaching force seems to be a major variable in determining the quality of a school system. Teachers as one of the inputs into the educational process constitute an important aspect in pupils' learning. Considering this point, Umeasiegbu (1991) argued that "the level of

performance in any school is intimately related to the quality of its teachers" while "the quality of any school system is a function of the aggregate quality of teachers who operate it."

In terms of competence, researchers have argued that teacher competence is a function of teacher qualifications (Aghenta, 2000). How competent a teacher could be in teaching seems to depend largely on teacher's qualification. This contention supported Mullen's (1993) argument that the level of a teacher's subject matter competence is a prime predictor of pupils' learning. He argued that it is not only the qualifications obtained by a teacher that could contribute to a teacher's quality but actual achievement in terms of subject matter competence.

Researchers have also attributed the low achievement of pupils in schools to teachers' inadequate knowledge of the subject matter. Oladejo (1991) for instance, conducted a survey on teacher factor in the effective teaching and learning of English as Second Language (ESL) in Kaduna State, Nigeria and found that out of the 95 teachers in his sample, 44 (46.3%) were degree holders in English Language having qualifications relevant to what they taught while 53.7% were non-degree holders or teachers specialized in other subjects teaching English Language in schools. He then argued that the problem of getting competent teachers has been a major problem to students' learning outcomes. He however observed that children of "all aptitude levels achieved more when taught by teachers who exhibited competency in classroom management."

The length of teaching experience of a teacher has been an important factor determining how effectively the teaching-learning process in a school has been achieved. The importance of experienced teachers in schools has been highlighted by many researchers (Akinleye, 2001; Commeyras, 2003). Researchers have also given different opinions about teaching experience and pupils' learning outcomes in schools (Waiching, 1994; Dunkin, 1997). Their arguments were based on the fact that experience improves teaching skills while pupils' learn better at the hands of teachers who have taught them continuously over a period of years.

Teachers' integrity seems to be another variable of teacher quality in the school system. Academic integrity has been defined as the dignity which an individual exhibits in the pursuit of academic knowledge (Beehr, 1996; McCabe, 2001). Others have described it as the prestige of oneself in his or her educational endeavours (Glasner, 2002; Obi, 2004). As such, how a teacher conducts himself or herself effectively in a school system is a function of his or her integrity (Chandon 2000; Uyo, 2004).

In the same vein, teachers' job performance is another variable that could determine teacher quality in a school system. It refers to the actions of the teacher in performing certain jobs or duties in the school. It is the totality of the input of the teacher towards the attainment of educational objectives (Ajayi, 2005; Olorunsola, 2010). It is the act of accomplishing a given task in a school organization. It could be measured through the level of teachers' competency in subject matter, lesson note preparation, content covered, level of coverage of scheme of work, lesson presentation, monitoring of pupils work, effective supervision, effective leadership and the disciplinary ability of the teacher (Adeyemi, 2008).

Notwithstanding the aforementioned variables of teachers' quality, how teachers' have been performing their job effectively in relation to the internal efficiency of the school system has been a matter of concern to stakeholders in education (Jones, 1997; Ige, 2001; Olubor, 2004).

The term efficiency refers to the relationship between the inputs and the outputs of a system (Nwandiani, 1998). The inputs into the system include the pupils, teachers, furniture, equipment and facilities as well as finance and time while the output comprises the pupils' who graduate at the end of the system (Adeyemi, 1998).

The concept of internal efficiency is of special interest to educational planners (Ekundayo, 2007). This contention agreed with the view point of Adu (2010) who reported that the more internally efficient the educational systems is, the less fund it would require to fulfill its objectives. Supporting this argument, Olubor (2004) reiterated that the output produced from a given quantity of inputs could be increased or kept at the same level even when input level is reduced. This implies that internal efficiency is a process of utilizing minimum inputs to maximize output. As such, the internal efficiency of a school system is the relationship of outputs (graduates) to its inputs (resources). This argument supported the view point of Afolabi (2006) who reported that internal efficiency is the extent of the school system to minimize input and increase output.

The increase in the rate of expenditure on education by government and other stakeholders as reflected in the unit cost indicates that more money is expended on each student over the passage of time. In this regard, Aghenta (2000) argued that in order to determine the internal efficiency of the school system, one has to determine the inputs such as teaching and non-teaching staff, funds, equipment, physical facilities and other facilities in relation to the output produced with such educational inputs.

Researchers have identified the student flow model in the school system as consisting of the promotion rate, repetition rate and dropout rate (Akintayo, 1991; Mullins, 2005). They argued that promotion rate is the rate at which pupils are promoted from one class to another in a cohort in a given year while repetition rate is the rate at which pupils repeat classes in a cohort of pupils in a school system. Dropout rate, on the other hand, is the number of pupils who left the school system at a particular time due to reasons such as withdrawal, transfer, incapability and so on. In the cohort, repetition and dropout constitute wastage in the system. In an ideal situation, pupils should normally spend 6 years in Nigerian primary schools. A situation whereby pupils spent extra years above the normal 6 years constitutes wastage in the system (Akinwumiju, 1995).

Although teachers' were posted to primary schools in Ekiti State, Nigeria on the basis of the government approved $1^1/2$ teachers' per class of 25 pupils (Ekiti State Nigeria, 1996), the factor of the urban and rural location of the schools tends to make certain schools to have a larger number of teachers' at the expense of other schools. As such, there seems to be instances of schools having a larger number of teachers' of a certain category on the basis of the government

approved quota of $1^1/2$ teachers per class of 25 pupils while other schools seem to have less of such category of teachers.

In view of the foregoing, the purpose of this study was to examine the flow rate of pupils in primary schools in Ekiti State, Nigeria in order to determine the internal efficiency of the schools. It was also to identify teacher quality variables in the schools. Since teacher variables are many, teacher variables in this study were restricted to teachers' qualifications, teachers' competence, teachers' teaching experience, teachers' integrity and teachers' job performance.

Statement of the Problem
The problem of funding the educational system in Ekiti State, Nigeria has been a matter of concern to stakeholders in education (Ige, 2001; Babalola, 2005). The problem of pupils' repeating a class for 1 or 2 years tends to constitute wastage in the system. This is in view of the fact that the space which could have been occupied by a new pupil would have to be retained for a repeater thereby siphoning more funds from government in terms of the continued teaching of the repeater in the same class for more than one year. Many reasons perhaps could be responsible for this development. Prominent among these reasons was perhaps the quality of teachers' in the school system. The problem of this study therefore was to determine what influence teacher quality had on internal efficiency of primary schools in Ekiti State, Nigeria? In addressing this problem, the following research questions were raised:

Research Questions
1.   What are the promotion rate, repetition rate and dropout rate in primary schools in Ekiti State, Nigeria between 2003 and 2008?
2.   Are primary schools in Ekiti State Nigeria internally efficient?
3.   Is there any significant relationship between teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria?
4.   Is there any significant difference in the internal efficiency of primary schools having greater number of teachers with degree qualifications and primary schools having less number of teachers with degree qualifications in Ekiti State, Nigeria?
5.   Is there any significant difference in the internal efficiency of primary schools having greater number of competent teachers and school having less number of competent teachers in Ekiti State, Nigeria?
6.   Is there any significant difference in the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years of teaching experience in the State?
7.   Is there any significant difference in the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in Ekiti State, Nigeria?
8.   Is there any significant difference in the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job?

9.   None of the variables of teacher quality could best predict internal efficiency of primary schools in Ekiti State, Nigeria.

Method
This study adopted the ex-post facto and the descriptive research design of the survey type. It was ex-post facto research as it was an after fact or after event research (Gay, 1996). It was also a descriptive research in the sense that it was a form of planned collection of data from a large population for the purpose of analyzing the relationships between variables (Oppenheim, 1992).

The study population comprised all the 694 primary schools in Ekiti State, Nigeria. Out of this population, a sample of 520 primary schools was taken and selected through the simple random sampling techniques. Out of all the 8,740 teachers including head teachers in the schools, 2,450 teachers including head teachers were selected for the study. The method of selection was by stratified random sampling technique. A cohort of 91,061 pupils who entered the 520 sampled schools in 2003 and graduated in 2008 were purposively selected for the study. This was to enable the researcher to examine the flow rate of the pupils through the six-year school system in terms of the promotion rate, repetition rate and dropout rate.

Two instruments were used to collect data for the study. These were an inventory and a questionnaire. The inventory titled 'primary schools teacher data and pupils' flow rate inventory' (PSTDPFRI) consisted of two parts A and B. Part A was demographic. It elicited information on the name of the school, its location, year founded, type of school and number of classes. Part B required information on the number of teachers by qualification, status and teaching experience. It also requested data on a cohort of pupils who entered the schools in primary 1 in 2003 and graduated in primary 6 in 2008. He then required data on the number of promotes, number of repeaters and the number of dropout in each of the years.

The questionnaire titled 'teachers' competence, dedication to duty, integrity and job performance questionnaire (TCDDIJPQ) also consisted of two parts A and B. Part A elicited demographic information about each school such as the name of the school, its location, year founded and number of classes. Part B requested information about teachers' competence, teachers' dedication to duty, teachers' integrity and teachers' job performance.

The content validity of the instruments was determined by experts in Tests and Measurement who marched each item of the instruments with the research questions in order to determine whether the instruments actually measured what they were suppose to measure. Their observations were used to effect necessary corrections on the instrument. Only the questionnaire was exposed to a test of reliability. Reliability test was not conducted on the inventory because the data collected through the inventory were already in the schools. In conducting the reliability for the questionnaire, the test re-test reliability technique was used. In doing this, the questionnaires were administered to 50 respondents outside the study area. After a period of two weeks, the questionnaires were re- administered to the same respondents. The data collected on the two tests were collated and analyzed using the Pearson's Product Moment

Correlation analysis. A correlation coefficient of 0.85 was obtained indicating that the instruments were reliable and consistent for the study.

The instruments were administered by the researcher and research assistants. After a period of 2 weeks, the completed instruments were retrieved from the respondents. All the respondents duly completed the instruments indicating 100% response rate. The data collected were analyzed using frequency counts, percentages, Pearson Product Moment correlation analysis, Chi-Square test, Correlation Matrix, Regression Analysis of Variance and Multiple Regression. All the null-hypotheses formulated for the study were tested for significance at 0.05 alpha level.

Results
Question 1: What are the promotion rate, repetition rate and dropout rate in primary schools in Ekiti State, Nigeria between 2003 and 2008?

In computing the promotion rate, repetition rate and dropout rate of pupils in primary schools in Ekiti State, Nigeria between 2003 and 2008, data on the number of promotees, number of repeaters and number of drop out were collected from the responses of the respondents to the inventory. The cohort of 91,061 pupils in primary 1 in 2003 who graduated in primary 6 in 2008 from the sampled schools was used. The data collected were analyzed using frequency count and percentages. The findings are presented in table 1.1.

Table 1.1: Number of Promotees, Repeaters and Dropout in Primary School in Ekiti State, Nigeria

	Primary 1	Primary 2	Primary 3	Primary 4	Primary 5	Primary 6			
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Cohort	91,061	89,901	87,945	86,251	84,790	82,935	8,535	487	70
No of promotees	86,451	85,156	83,643	82,645	81,116	78,040	6,685	269	50
No of Repeaters	3,450	2,789	2,608	2,145	1,774	1,421	245	25	-
No of dropout	1,160	1,956	1,694	461	1,855	3,474	1,605	193	20
Graduates						70,926	6443	224	50

As indicated in table 1.1, the number of promotees in primary schools in Ekiti State, Nigeria was found to be high in each of the years. Although, the cohort of 91,061 pupils started primary 1 in the sampled schools in 2003, the number of pupils reduced in 2004 to 89,901 as a result of repetition and drop out. For instance, the number of repeaters reduced from 3, 450 in primary 1 in 2003 to 1,421 in primary 6 in 2008. The number of drop out was at a fluctuating trend in each of the years

from primary 1 in 2003 to primary 6 in 2008. The years 2009 to 2011 accounted for the number
of repeaters and drop out who were yet to leave the school system.
In computing the promotion rate, repetition rate and dropout rate among pupils in the schools,
the following formulas (Akinwumiju & Patwari, 1990) were used:

(1)   Promotion rate:

$$Pgt = \frac{P_{g+1}^{t+1}}{Egt} \times \frac{100}{1}$$

Where:

P_{g+1}^{t+1} = number of students promoted to the next class g+1 in year t+1

E_g^t = total number of students that are enrolled in the former class g in previous year
t.

(2)   **Repetition rate:**

$$Rtg = \frac{R_g^{t+1}}{E_g^t} \times \frac{100}{1}$$

Where:

R_g^{t+1} = number of repeaters in the new academic year t + 1
          in a given class g, that is, the following year.
E_g^t = number of students enrolled in the former academic
         Year 't' in the same class session 'g'

(3)   **Dropout rate:**

$$Dgt = \frac{E_g^t g - [P_g^{t+1} + R_g^{t+1}]}{E_g^t} \times \frac{100}{1}$$

Where:

D_g^t = number of students dropping out of class 'g' in year't'.

(4)   **Wastage ratio:** $\frac{actual\ input - output}{ideal\ input - output}$

Where:

*   Actual input – output = $\frac{Actual\ input}{\textbf{Actual output}}$

*   Ideal input – output   = $\frac{Ideal\ input}{\textbf{Ideal output}}$

Using the formulas, the promotion rate, repetition rate and dropout rate for the cohort of 91,061
pupils of sampled primary schools in the State were computed. Table 1.2 shows the findings.

Table 1.2: Promotion: Repetition and Dropout Rate in Primary School in Ekiti State, Nigeria

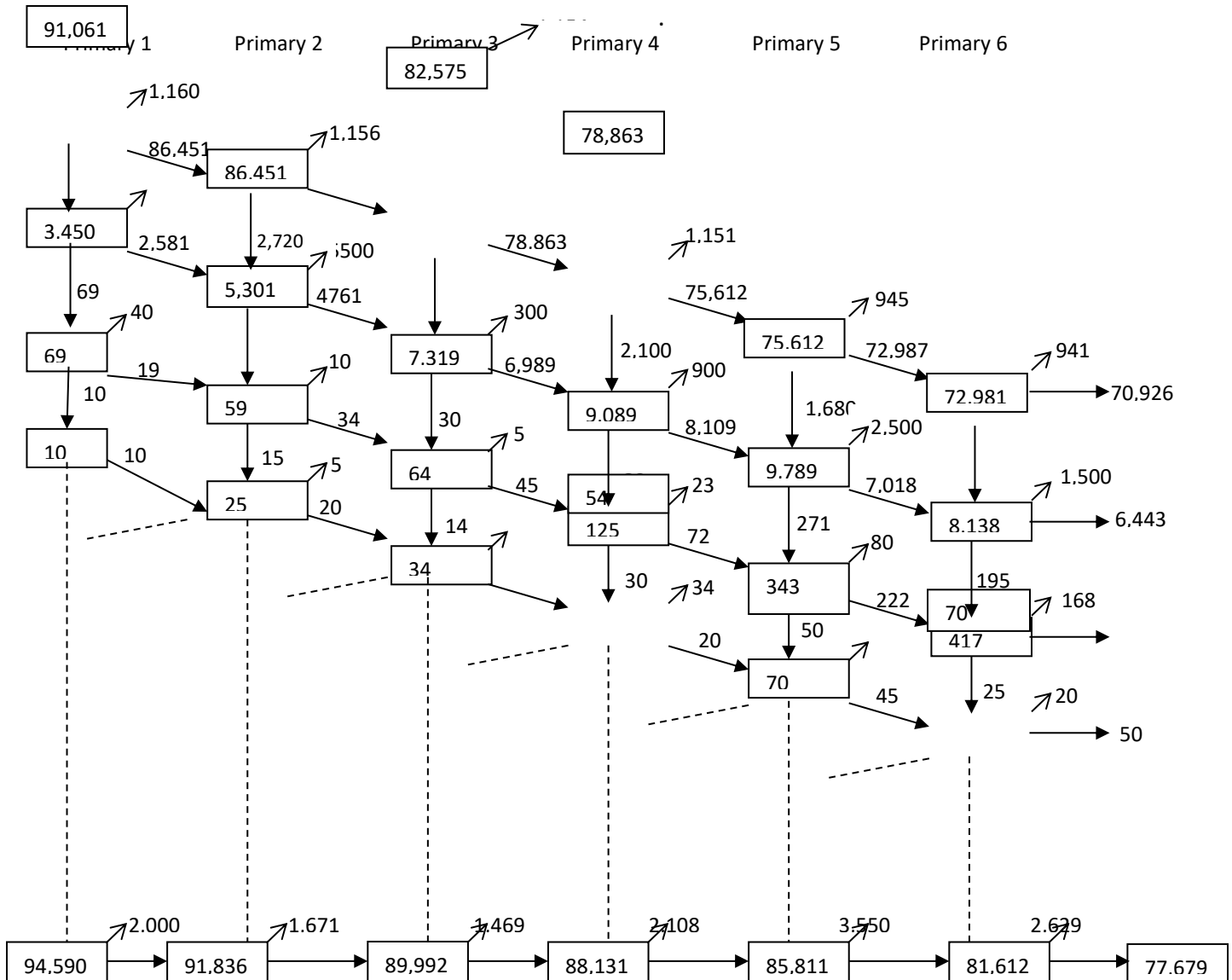|	Primary 1	Primary 2	Primary 3	Primary 4	Primary 5	Primary 6			
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Cohort	91,061	89,901	87,945	86,251	84,790	82,935	8,535	487	70
No of promotees	94.9	98.5	98.2	98.8	98.1	96.2	8.6	4.0	18.6
No of Repeaters	3.80	3.10	2.96	2.49	2.09	1.71	2.87	5.10	-
No of dropout	1.27	2.18	1.93	0.53	2.19	4.19	18.80	39.63	28.57
Graduates						85.52	75.49	45.99	71.43

In table 1.2, the promotion rate shows a fluctuating trend from primary 1 in 2003 to primary 6 in 2008. The rate increased from 94.9% in primary 1 in 2003 to 98.5% in primary 2 in 2004. The promotion rate reduced to 98.2% in primary 3 in 2005 and increased to 98.8% in primary 4 in 2006. It then reduced to 98.1% in primary 5 in 2007 and further reduced sharply to 96.2% in primary 6 in 2008.

The repetition rate reduced throughout the 6years of schooling from 3.80% in primary 1 in 2003 to 1.71% in primary 6 in 2008. The dropout rate was at a fluctuating trend throughout the schooling period from 2003 to 2008. It was 1.27% in primary 1 in 2003 and 2.18% in primary 2 in 2004. It was also 1.93% in primary 3 in 2005 while in 2006 it was 0.53% in primary 4. The dropout rate however increased to 2.19% in primary 5 in 2007 as well as 4.19% in primary 6 in 2008. In the overall analysis, the table shows that the promotion rate was high throughout the schooling period while the repetition and dropout rates were at a low level.

Question 2: Are primary schools in Ekiti State Nigeria internally efficient?
In answering this question, data on the number of promotees, number of repeaters and drop out in the cohort of 91,061 pupils of sampled primary schools in Ekiti State Nigeria were collected from the responses of the respondents to the inventory. The data were analyzed in a cohort showing the number of promotees, number of repeaters and drop out on yearly basis from primary 1 in 2003 to primary 6 in 2008. The findings are presented in figure 1.
Figure 1: Cohort Analysis showing the flow rate of students in primary school Ondo State, Nigeria

91,061

Primary 1   Primary 2   Primary 3   Primary 4   Primary 5   Primary 6

82,575

1,160

86,451   1,156

86,451

78,863

3,450   2,581   2,720   500   78,863   1,151

5,301   4761   75,612   945

69   40

69   19   300   75,612   72,987   941

59   10   7,319   6,989   2,100   900   72,981   70,926

10   10   34   30   9,089   8,109   1,680   2,500

25   15   5   64   5   9,789   7,018   1,500

20   45   54   23   271   8,138   6,443

34   14   125   72   343   80   195

30   34   222   70   168

20   50   417

70   45   25   20

50

In computing the cohort of pupils in the sampled primary schools, the following notations Indicated in figure 2 were used in analyzing the pupils flow rate in figure 1.

2,000   1,671   1,469   2,108   3,550   2,629

94,590   91,836   89,992   88,131   85,811   81,612   77,679

i.   ii.
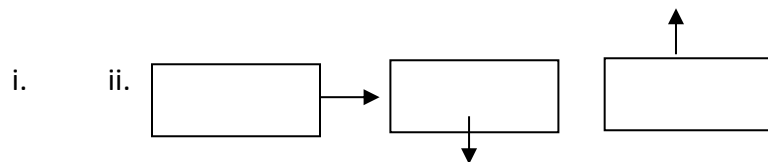
Where:
i.   =   Promotion rate
ii.   =   Repetition rate
iii.   =   Dropout rate
        The results are as follows:
No of dropout = 13,427

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Total output = 77,643
Total input
PRY 1 = 91,061 + 3, 450 + 69 + 10 = 94,590
PRY 2 = 86,451 + 5,301 + 59 + 25 = 91,836
PRY 3 = 82,575 + 7,319 + 64 + 34 = 89,992
PRY 4 = 78,863 + 9,089 + 125 + 54 = 88,131
PRY 5 = 75,612 + 9,789 + 343 + 70 = 85,814
PRY 6 = 72, 987 + 8,138 + 417 + 70 = 81,612
Total input   = 531,975
Actual input- output = Input   = $\frac{531,975}{77,643}$ = 6.85
                        Output   77,643
Ideal input –output = $^6/_1$ = 6
Where 6 is the actual number of years to be spent by a pupil in the schools.

Wastage ratio = actual input-output
                    Ideal input-output

= $\frac{6.85}{6}$ = 1.14

∴ Wastage ratio = 1.14

In interpreting the wastage ratio, it means that one successful completer of primary school in Ekiti State, Nigeria on the average spent 6.85 pupil-years as against the ideal (optimum) pupil years of 6 years. A perfect situation will give a wastage ratio of 1 which is not possible in reality. As such, the nearer the wastage ratio is to 1, the more efficient is the system and vice- versa (Akinwumiju, 1995; Ayodele, 2005).

Thus, in order to determine the internal efficiency, otherwise known as the coefficient of efficiency, the reciprocal of the wastage ratio was determined. As such, the coefficient of efficiency is equal to 1 divided by the wastage ratio and multiply by 100 (Ayodele, 2005). This was represented as follows:

Coefficient of = $\frac{1}{wastage\ ratio}$ x $\frac{100}{1}$
Efficiency   wastage ratio   1

In this regard, the coefficient of efficiency in respect of this study was computed as follows:
Coefficient of = $\frac{1}{1.14}$ x $\frac{100}{1}$
Efficiency   1.14   1
∴ The coefficient of efficiency = 87.7%
The finding indicates that primary schools in Ekiti State, Nigeria are 87.7% internally efficient. This high coefficient of efficiency shows that primary schools in the State are internally efficient.

Question 3: Is there any significant relationship between teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria?

In answering this question, data on teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria were collected from the responses of the respondents to the inventory. The data collected were analyzed using frequency counts and percentages while the hypothesis was tested using the Pearson Product Moment Correlation technique. The findings are presented in table 3.

Table 3: Correlation between Teacher Quality and Internal Efficiency of Primary Schools in Ekiti State, Nigeria.

Schools	N	Mean	SD	Df	r-calculated	r-table
Teacher Quality	520	89.64	24.82	1038	0.472	0.195
Internal Efficiency	520	51.12	21.85			

$p < 0.05$

As indicated in table 3, the r-calculated (0.472) was greater than the r-table (0.195) at 0.05 alpha level. Hence, the null-hypothesis was rejected. This shows that there was a significant relationship between teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria. This was reflected in the mean value (89.64) for teacher quality as against the mean value (51.12) for internal efficiency of the schools. The significant relationship found in this study between teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria suggest that the higher the teacher quality the higher the internal efficiency of the schools. This finding was in consonant with the findings made by Abaji & Odipo (2000) who found significant relationship between teacher quality and internal efficiency of primary schools in Kenya.

Question 4: Is there any significant difference in the internal efficiency of primary schools having greater number of teachers with degree qualifications and primary schools having less number of teachers with degree qualifications in Ekiti State, Nigeria?

In answering this question, the following null-hypothesis was raised.

Ho: There is no significant difference in the internal efficiency of primary schools having greater number of teachers with degree qualifications and primary schools having less number of teachers with degree qualifications in Ekiti State, Nigeria.

In testing this hypothesis, data on the internal efficiency of primary schools having greater number of teachers with degree qualifications and primary schools having less number of teachers with degree qualifications in Ekiti State, Nigeria were collected from the responses of the respondents to the inventory. The data collected were analyzed using frequency count and percentages while the null-hypothesis was tested using the Chi Square statistic. The Chi-Square

statistic was used because the items were discrete variables and were at the nominal scale of measurement. The findings are presented in table 4.

Table 4: Chi Square Test on Internal Efficiency of Schools and Teachers Qualifications in Primary Schools in Ekiti State, Nigeria.

	Internal efficiency					
Schools	High	Low	Total	Df	$X^{2\ cal}$	X^t
having greater numbers of teachers with degree qualifications	324	78	402	1	56.94	3.84
having less numbers of teachers with degree qualifications	72	46	118			
Total	396	124	520			

P< 0.05

As indicated in table 4, the Chi- Square calculated (56.94) was greater than Chi Square table at 0.05 alpha level. The null-hypothesis was rejected. This shows that there was a significant difference between the internal efficiency of primary schools having greater numbers of teachers with degree qualifications and primary schools having less numbers of teachers with degree qualifications in Ekiti State, Nigeria. Primary schools having a larger number of teachers with degree qualifications are more internally efficient than primary schools having less number of teachers with degree qualifications in the State.

Question 5: Is there any significant difference in the internal efficiency of primary schools having greater number of competent teachers and primary school having less number of competent teachers in Ekiti State, Nigeria?
In addressing this problem, the question was transformed to the following null-hypothesis.

Ho: There is no significant difference in the internal efficiency of primary schools having greater number of competent teachers and primary schools having less number of competent teachers in Ekiti State, Nigeria.

In testing this hypothesis, data on the internal efficiency of primary schools having greater number of competent teachers and primary schools having less number of competent teachers in Ekiti State, Nigeria were collected from the responses of the respondents to the questionnaire.

Teacher competence was measured in this study in terms of mastery of subject matter, prompt preparation of lesson note, prompt preparation of scheme of work, regular attendance in classes, organizing preparatory classes for pupils and pupils' performance in the subject taught. The data collected were analyzed using frequency count and percentages while the null-hypothesis was tested using the Chi Square statistic. The Chi Square statistics was used because the items were discrete variables and were at the nominal scale of measurement. The findings are presented in table 5.

Table 5: Chi Square Test on Internal Efficiency of Schools and Teacher Competent in Primary Schools in Ekiti State, Nigeria.

	Internal efficiency					
Schools	**High**	**Low**	**Total**	**Df**	**$X^{2\,cal}$**	**X^t**
having greater number of competent teachers	316	96	412	1	36.57	3.84
having less number of competent teachers	70	38	108			
Total	386	134	520			

$P< 0.05$

In table 5, the Chi Square calculated (36.57) was greater than the Chi Square table at 0.05 alpha level. As such, the null-hypothesis was rejected. This indicates that there was a significant different between the internal efficiency of primary schools having greater number of competent teachers' and primary schools having less numbers of competent teachers in Ekiti State, Nigeria. Primary schools having greater number of competent teachers' are more internally efficient than primary schools having less number of competent teachers' in the State.

Question 6: Is there any significant difference in the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years of teaching experience in the State?
In answering this question, the following null-hypothesis was raised.

Ho: There is no significant difference in the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years of teaching experience in the State.

In testing this hypothesis, data on the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years of teaching experience in Ekiti State, Nigeria were collected from the responses of the respondents to the inventory. The data collected were analyzed using frequency count and percentages while the null-hypothesis was tested using the Chi Square statistic. The Chi Square statistic was used because the items are discrete variables and were at the nominal scale of measurement. The findings are presented in table 6.

Table 6: Chi Square Test on Internal Efficiency of Schools and Teachers Teaching Experience in Primary Schools in Ekiti State, Nigeria.

	Internal efficiency					
Schools	**High**	**Low**	**Total**	**Df**	**$X^{2\,cal}$**	**X^t**
having teachers with fifteen years and above teaching experience	272	118	390	1	54.71	3.84
having teachers with less than fifteen years teaching experience	94	36	130			
Total	366	154	520			

P< 0.05

In table 6, the Chi Square calculated (54.71) was greater than the Chi Square table at 0.05 alpha level. Hence, the null-hypothesis was rejected. This shows that there was a significant different between the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years teaching experience in Ekiti State, Nigeria. Primary schools having teachers with fifteen years and above teaching experience are more internally efficient than primary schools having teachers with less than fifteen years teaching experience in Ekiti State, Nigeria.

Question 7: Is there any significant difference in the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in Ekiti State, Nigeria?
In addressing this problem, the question was transformed to the following null-hypothesis.

Ho: There is no significant difference in the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in Ekiti State, Nigeria.

In testing this hypothesis, data on the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in Ekiti State, Nigeria were collected from the responses of the respondents to the inventory. Teachers' academic integrity variables examined in this study included loyalty to school principal, honesty to the organization, truthfulness in doing things, academic cheating in examinations, aiding and abetting exam malpractices.

In computing the internal efficiency for each of the schools, the flow Rate model was used. In this regard, the promotion rate, repetition rate and drop out rate were calculated for each of the schools. The wastage ratio was determined while the internal efficiency was computed. In order to determine the level of efficiency, otherwise known as the coefficient of efficiency, the reciprocal of the wastage ratio was determined. The null-hypothesis was tested using the Chi-square statistic. The chi-square statistic was used because the data collected were discrete variables and were at the nominal level of measurement. The findings are presented in table 7.

Table 7: Chi-square analysis of internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in Ekiti State, Nigeria.

Primary Schools	Internal efficiency			Df	$\chi^{2\,cal}$	χ^{t}
	High	Low	Total			
Having greater number of teachers with high integrity	302	72	374	1	47.57	3.84
Having less number of teachers with high integrity	105	41	146			
Total	407	113	520			

P< 0.05

In table 7, the chi-square calculated (47.57) was greater than the table chi-square (3.84) at 0.05 level of significant. As such, the null hypothesis was rejected. This indicate that there was a significant difference in the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in the State, Nigeria. Primary schools having greater number of teachers with high

integrity are more internally efficient than primary schools having less number of teachers with high integrity in the State.

Question 8: Is there any significant difference in the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job?

In addressing this problem, the question was transformed to the following null-hypothesis.

Ho: There is no significant difference in the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job.

In testing this hypothesis, data on the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job were collected from the responses of the respondents to the inventory.

In computing the internal efficiency for each of the schools, the flow Rate model was used. In this regard, the promotion rate, repetition rate and dropout rate were calculated for each of the schools. The wastage ratio was determined while the internal efficiency was computed. In order to determine the level of efficiency, otherwise known as the coefficient of efficiency, the reciprocal of the wastage ratio was determined. The null-hypothesis was tested using the Chi-square statistic. The chi-square statistic were used because the data collected were discrete variables and were at the nominal level of measurement. The findings are presented in table 8.

Table 8: Chi-square analysis of internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job.

	Internal efficiency					
Primary Schools	**High**	**Low**	**Total**	**Df**	**$\chi^{2\,cal}$**	**χ^t**
Having greater number of teachers performing better on the job	302	72	374	1	46.56	3.84
Having less number of teachers performing better on the job	105	41	146			
Total	407	113	520			

P< 0.05

In table 8, the chi-square calculated (46.56) was greater than the table chi-square (3.84) at 0.05 level of significant. As such, the null hypothesis was rejected. This indicate that there was a significant difference in the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job. Primary schools having greater number of teachers performing better on the job are more internally efficient than primary schools having less number of teachers performing better on the job in the State.

Question 9: None of the variables of teacher quality could best predict internal efficiency of primary schools in Ekiti State, Nigeria.
In testing this hypothesis, the multiple regression analysis was computed. Since one of the first steps in calculating a multiple regression equation with several variables is to calculate a correlation matrix for all the variables (Norusis/SPSS Inc, 1993), correlation analysis was computed while a correlation matrix was derived showing the coefficient of correlation for each pair of variables. The findings are presented in table 9.1.

Table 9.1 Correlation Matrix between Teacher Quality Variables and Internal Efficiency of Primary Schools in Ekiti State, Nigeria

	Variables	Internal Efficiency	Teachers Qualifications	Teachers Competence	Teachers Teaching Experience	Teachers Integrity	Teachers Performance
1	Internal Efficiency	1.00					
2	Teachers Qualifications	0.542	1.00				
3	Teachers Competence	0.476	0.421	1.00			
4	Teachers Teaching Experience	0.527	0.574	0.547	1.00		
5	Teachers Integrity	0.241	0.354	0.346	0.342	1.00	
6	Teachers Performance	0.451	0.565	0.546	0.543	0.254	1.00

P< 0.05

Table 9.1 shows the relationship between each pair of variables examined in this study.
The teacher quality variables show significant relationship with each other and with the internal efficiency of primary schools in Ekiti State, Nigeria. The value of 'r' shows the correlation coefficient between each pair of variables. The finding shows that each pair of variables was significant at 0.05 alpha level. The correlation coefficients of above 0.5 show strong association between each pair of variables. However, since the correlation analysis determines only the relationship between each pair of variables, it could not show the relationship among all the variables put together. Hence, the multiple regression analysis was computed so as to determine the interrcorrelation among the variables.

In determining the multiple regression analysis, it is pertinent to first determine the regression analysis of variance. As such, the sum of square, the mean square, the F Ratio and the significant F were computed. The findings are shown in table 9.2.

Table 9.2: Regression Analysis of Variance

	Df	Sum of Squares	Mean Square	F	Sign. F
Regression	1	7.5472	2.1471	146.172	0.0002
Residual	518	4.8578	0.00684		

As indicated in table 9.2, the F ratio = 146.172 while Sign. F = 0.0002.

In order to determine the intercorrelation among the variables put together and to determine which of the predictor variables could best predict the values of the criterion variable, all the variables were put into the regression model. The findings are indicated in table 9.3.

Table 9.3: Multiple Regression Analysis of Predictor variables with the Criterion Variable

Predictive variables	B	SE B	Beta	T	Signif. T
Teachers' Qualification	0.54273	0.07451	0.52744	1.527432	0.0000
Teachers' Competence	0.47542	0.02143	0.39528	1.41276	0.0000
Teachers' Teaching Experience	0.52724	0.13146	0.51487	1.35782	0.0000
Teachers' Integrity	0.23584	0.01345	0.22565	-0.94571	0.0003
Teachers' Job Performance	0.45394	0.17582	0.43673	1.47311	0.0003
(Constant)	3.21541	0.05247		1.01874	0.0001

Table 9.3 shows the output of the regression model. The findings also revealed the following output:

Multiple R =0.74572

R Square =0.64784

Adjusted R Square =0.63563

Standard Error =0.05472

Y = 3.21541 + 0.54273 (Teacher Qualification) + 0.52724 (Teachers' Teaching Experience) + 0.47542 (Teachers' Competence) + 0.45394 (Teachers' Job Performance) + 0.23584 (Teachers' Integrity).

Considering the findings in table 9.3, all the predictor variables enter the regression equation. The significant t was less than 0.05 for all the variables. This indicates a significant relationship between the predictor variables of teacher quality and the criterion variable that is, the internal efficiency of primary schools in Ekiti State, Nigeria. The best predictor of internal efficiency of the schools was teachers' qualifications which contributed 54.27% to the regression equation. This was followed by teachers' teaching experience which contributed 52.72% to the regression equation. This was also followed by teacher competence which contributed 47.54% to the regression equation. Other predictor variables that contributed significantly to the regression equation included teachers' job performance (45.39%) and teachers' integrity (23.58%).

The R^2 of 0.64784 found in this study shows that 64.78% of variations in internal efficiency are accounted for by the variations in teacher quality variables. The total balance of 35.22% might have been accounted for by the variations in variables that were not examined in this study.

The adjusted R^2 of 0.63563 attempts to correct the R^2 in order to closely reflect the goodness of fit. It tends to show how well the data fit into the regression model. If the data fits into the model very well, the adjusted R^2 will have a value of 1 but if it does not fit into the model, the value will be 0. As such, the value of the adjusted R^2 is between 0 and 1 (Moore, 1994). Although it attempts to correct the optimistic bias of the sample R^2, the adjusted R^2 does not necessarily increase as

more variables are added to an equation. The adjusted R^2 0.63563 is thus the preferred measure of goodness of fit because it is not subject to the bias of the unadjusted R^2.

Discussion

The foregoing shows the analysis of data collected for this study. It was found that the promotion rate was high in each of the years of study, 2003 to 2008 while the repetition rate reduced sharply in primary 1 in 2003 to primary 6 in 2008. The number of dropout rate was at a fluctuating trend in each of the years. This finding agreed with the findings made by Ayodele (2000) who found increasing promotion rate and decreasing repetition and dropout rate in primary schools in Ondo State, Nigeria.

The findings of this study reveal that primary schools in Ekiti State are internally efficient. Although the wastage ratio was 1.14 for the cohort 2003 to 2008, the coefficient of efficiency was 87.7%. This finding was consistent with the findings made by (Akinwumiju, 1995; Babalola, 2005) who found that many primary schools in south west Nigeria were internally efficient.

The significant relationship found in this study between teacher quality and internal efficiency of primary schools in Ekiti State, Nigeria suggest that the higher the teacher quality the higher the internal efficiency of the schools. This finding was in consonant with the findings made by Abaji & Odipo (2000) who found significant relationship between teacher quality and internal efficiency of primary schools in Kenya.

The significant difference between the internal efficiency of primary schools having greater number of teachers with degree qualifications and primary schools having less number of teachers with degree qualifications in the State suggest that the greater the number of teachers with degree qualifications in schools the higher was the internal efficiency of the schools. This finding agreed with the findings made by Adeyemi (2005) who found significant relationship between teacher qualifications and students learning outcomes in schools. The findings of this study however negated the findings made by Mullens (1993) who found no significant relationship between teachers' qualifications and internal efficiency in Belize, Central America.

The significant difference found between the internal efficiency of primary schools having greater number of competent teachers' and primary schools having less number of competent teachers in the State suggest that the greater the number of competent teachers in the school the higher was the internal efficiency of the schools. This finding agreed with the findings of previous researchers (Mullen's, 1993; Aghenta, 2000) who emphasized the importance of teachers' competence in the internal efficiency of schools.

The significant difference found in this study between the internal efficiency of primary schools having teachers with fifteen years and above teaching experience and primary schools having teachers with less than fifteen years teaching experience in Ekiti State, Nigeria confirmed that, the greater the number of years of teachers teaching experience in the school the higher was the internal efficiency of the schools. This finding was consistent with the findings made by earlier

researchers (Stiggins & Duke, 1990; Waiching, 1994; Rice, 2004) who found significant influence of teaching experience on the internal efficiency of schools. The finding suggests that the higher the number of years of teachers' teaching experience, the high would be the internal efficiency of the schools.

In the same vein, the significant difference found between the internal efficiency of primary schools having greater number of teachers with high integrity and primary schools having less number of teachers with high integrity in the State confirmed that the higher the level of integrity among teachers in primary schools in the State the higher the level of internal efficiency of the schools. This finding agreed with the findings made by Salami, (1992) who found that teachers' integrity had significant influence on the internal efficiency of schools. The finding was however in contrast with the findings made by Cromwell (2000) and Olugbile (2004) who reported that teachers' integrity is at stake when cheating and exam malpractices are of frequent occurrence among pupils thereby lowering the internal efficiency of schools.

The significant difference found in this study between the internal efficiency of primary schools having greater number of teachers performing better on the job and primary schools having less number of teachers performing better on the job suggest that the better the job performance of teachers the higher the internal efficiency of the schools. This finding was in consonance with the findings made by Olaniyan (1997) who asserted that teachers' job performance has significant influence on the internal efficiency of schools.

The finding of this study which isolated teachers' qualification as the best predictor of internal efficiency of primary schools in Ekiti State, Nigeria suggest that the higher the qualification of teachers' the higher would be the internal efficiency of the schools. This finding was consistent with the findings made by Olubor (2004) who reported significant relationship between teacher qualification and the internal efficiency in schools.

Conclusion
Considering the finding of this study, it was concluded that teacher quality is a critical variable in the internal efficiency of primary schools in Ekiti State, Nigeria. It was concluded that the higher the level of the variables of teacher quality the higher would be the level of the internal efficiency of the schools. The findings of the study have therefore led the researcher to conclude that teacher quality is a function of internal efficiency of primary schools in the State. The fact that the findings of the study isolated teacher qualifications as the best predictor of internal efficiency of the schools shows that teachers are the prime factor and the hub of the educational system in the State.

Recommendation
Based on the findings of this study, it was recommended that the Ekiti State government of Nigeria should intensify more effort in the training of teachers in order to acquire higher qualifications that would enhance the internal efficiency of primary schools in the State. Seminars and workshop could be organized for teachers in order to acquaint them with the modern

methods of teaching and improve the level of internal efficiency of the schools. Government should also intensify increase effort in staff development by sending teachers for further training in order to acquire advanced knowledge and skills that would make them perform better on the job and improve the internal efficiency of primary schools in the State.

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