A Comparative Study of Students' Academic Performance in Public Examinations in Secondary Schools in Ondo and Ekiti States, Nigeria

T.O. Adeyemi
Department of Educational Foundations and Management, University of Ado-Ekiti, P.M.B. 5363, Ado-Ekiti, Nigeria

Abstract: This study investigated students' academic performance in public examinations in Secondary Schools in Ondo and Ekiti States, Nigeria. As a descriptive research, the study population comprised all the 281 secondary schools in Ondo State and the 171 secondary schools in Ekiti State, Nigeria. Out of this population, a sample of 240 secondary schools in Ondo State and 146 secondary schools in Ekiti State was taken. The method of selection was by stratified random sampling technique. The instrument used to collect data for the study was an inventory while the data collected was analyzed using percentages, chi-square statistic and the t-test. It was found that the performance of student in the Junior Secondary Certificate (JSC) and the Senior Secondary Certificate (SSC) examinations was low. Based on this, it was recommended that the educational system needs to be revamped and made result oriented in the two States. The teaching and learning processes in all schools in the two States should be re-examined with the aim of improving the quality of performance of students in JSC and SSC examinations.

Key words: Academic performance, JSC, Nigeria, public examinations, SSC

INTRODUCTION

Academic performance has been described as the scholastic standing of a student at a given moment. This scholastic standing could be explained in terms of the grades obtained in a course or groups of courses (Daniels and Schoulen, 1970). Simkins (1981) commented on this scholastic standing and argued that performance is a measure of output and that the main outputs in education are expressed in terms of learning, that is, changes in knowledge, skills and attitudes of individuals as a result of their experiences within the school's system. STAN, (1992) supported this argument and reported that performance is the level of attainment of a person in an examination, that is, how an individual is able to demonstrate his or her abilities in an examination.

Noting this point, Al-Shorayye (1995) regarded a student's performance in an examination as being depended on his cumulative grade point average. His argument supported Entwistle and Wilson's (1977) assertion that a student's success is generally judged by examination performance while the best criterion of performance is the sum of the student's academic performance in all the subjects taken.

Researchers had deliberated much on performance as a measure of school output (Blaug and Woodhall, 1968; Adeyemi, 1998; Bandele, 2001). Blaug and Woodhall (1968), for instance, argued that the only measure of performance of school leavers is the attainment in GCE examinations. Consequently, they measured output in terms of the number of school leavers weighted by different indices of quality or number of passes and reported that performance in GCE is one relevant criterion of educational quality and that 'academic index' measures output in terms of GCE results.

The pattern of grading students in the Junior Secondary Certificate (JSC) and the Senior Secondary Certificate (SSC) examinations in Nigeria is such that the distinction grade is being represented by A1 to B3. The credit grade is represented by C4 to C6. The ordinary pass grade is represented by D7 and E8 while the failure grade is represented by F9 (Ondo State Ministry of Education, 1994; Ekiti State Ministry of Education, 1997; WAEC, 2006). It needs to be mentioned however, that the distinction and credit grades are the only requisite grades for admissions into Nigerian universities and candidates must have at least credits in five subjects including English Language in order to qualify for admission (JAMB, 2007).

Considering the results in the GCE and similar examinations, a fall in performance in public examinations has been reported in many countries (World Bank, 1988; Adeyegbe, 2002; Onipede, 2003). The World Bank (1988), for instance, found that the quality of education especially in Sub-Sahara Africa has eroded markedly while State support has declined in real dollars. In Nigeria, Adeyegbe (2002) found that there was a decline in students' performance in SSC examinations. He reported that in topics where teachers found difficult to teach, students tend to perform below expectation.
Supporting this point, Onipede (2003) reported that students performed below expectation in Senior Secondary Certificate (SSC) examinations in many subject areas especially in English Language and Mathematics.

Researchers have identified different factors that could cause students’ failure (Wankowski, 1973; OECD, 1989; Al-Methen and Wilkinson, 1992). Wankowski (1973) for instance, reported that academic failure seems to be associated with the lack of personal confidence, emotional instability and temperamental tendency towards extraversion. Supporting this fact, Al-Methen and Wilkinson (1992) reported that failure in students is due to the lack of confidence in the knowledge they possess which in turn could affect their level of activity in the classroom. They argued that students’ academic problems arise from personal inadequacies such as low ability; negative self concept, anxiety, maladjustment, environmental influences such as poor classroom conditions, curricular inadequacies, peer groups and the lack of home support. These arguments supported OECD's (1989) remarks that many young people do not learn much in developing countries. Some often leave school before the school leaving age while others are in the habit of attending school irregularly.

Researchers have given other reasons why most candidates find it difficult to pass their examinations (Oke, 1992; Ijaiya, 2000; Oderinde, 2003; Adeyemi, 2007). Among these reasons include having to repeat classes, lack of adequate knowledge in their various subjects, inadequacy of professionally qualified teachers in schools and insufficient facilities. These reasons might perhaps have led to the remarks made by (Odesola, 2001; Adelugba, 2003; Asaolu, 2003) that Ondo State recorded an unprecedented failure in core subjects in the year 2000 senior secondary certificate examinations in the annals of the State.

Therefore, since performance is a measure of school output (Simkins 1981), why the Junior Secondary Certificate (JSC) and Senior Secondary Certificate (SSC) examinations are the two major public examinations exposed to by secondary school students in Ondo and Ekiti States, Nigeria, this study intended to examine the performance level of students in the examinations in the two States.

Statement of the problem: The performance of secondary schools' students in Ondo and Ekiti States, Nigeria has been a subject of controversy. Some schools of thought were of the view that the performance was improving (Ige, 2001; Afolabi and Adewolu, 1998). Other schools of thought argued that the performance level was dwindling terribly (Onipede, 2003). The problem of this study, therefore, was to determine whether or not any significance differences exist between the performance level of secondary schools' students in junior and senior secondary certificate examination in Ondo and Ekiti States, Nigeria? In addressing this problem, the following research questions were raised:

- What is the performance level of students in Ondo and Ekiti States, Nigeria in the Junior Secondary Certificate (JSC) examinations?
- What is the performance level of students in Ondo and Ekiti States, Nigeria in the Senior Secondary Certificate (SSC) examinations?
- Is there any significant relationship between school location and students’ academic performance in the Junior Secondary Certificate (JSC) examination in Ondo and Ekiti States, Nigeria?
- Is there any significant relationship between school location and students’ academic performance in the Senior Secondary Certificate (SSC) examination in Ondo and Ekiti States, Nigeria?
- Is there any significant difference in the performance of students in Junior Secondary Certificate (JSC) examinations between Ondo and Ekiti States, Nigeria?
- Is there any significant difference in the performance of students in Senior Secondary Certificate (SSC) examinations between Ondo and Ekiti States, Nigeria?

METHODOLOGY

This study was designed along the line of an ex-post facto and a descriptive survey. It was ex-post facto in the sense that it was an after fact or after event research (Gay, 1996). It was a descriptive survey in the sense that the study examined a particular situation as it was, that is, the academic performance of students in examinations over a large area without any attempt to manipulate variables Cressey (1982). The study was conducted in 2009 in Ondo and Ekiti States, Nigeria. The study population comprised all the 281 secondary schools in Ondo State, Nigeria and the 171 secondary schools in Ekiti State, Nigeria. Out of this population, a sample of 240 secondary schools in Ondo State and 146 secondary schools in Ekiti State was taken. The method of selection was by stratified random sampling technique taking into consideration the location of the school on the basis of urban and rural location. The sample accounted for 85% of the study population in each of the two States. Out of the 51,380 students who registered for the Junior Secondary Certificate (JSC) examinations in 2009 in Ondo State, Nigeria, 20,160 students who obtained credit and above, that is, grades A, B and C in the examinations were selected for the study.
In answering this question, the grades obtained by students in the Junior Secondary Certificate (JSC) examinations in English Language, Mathematics, Physics, Chemistry and Biology in Nigeria from 2005 to 2009 were collected from the principals of each of the schools using the inventory. The performance levels of students in the examination in the two States are indicated in Table 3 and 4.

In Table 3 and 4, the analysis revealed that the performance level in the SSC examination was higher in Ondo State than in Ekiti State in almost all the subjects.

Question 3: Is there any significant relationship between school location and students’ academic performance in the Junior Secondary Certificate (JSC) examination in Ondo and Ekiti States, Nigeria?

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

Ho: There is no significant relationship between schools location and students’ academic performance in the Junior Secondary Certificate (JSC) examination in Ondo and Ekiti States, Nigeria.

Testing this hypothesis, data on the number of schools in the sample on the basis of urban and rural location of the schools were collected from the principals of schools using the inventory. The chi-square statistic was used to test the hypothesis. The findings are presented in Table 5.

As indicated in Table 5, the calculated chi-square value (112.81) was greater than the table chi-square value (3.841) at 0.05 level of significance; hence, the null hypothesis was rejected. This shows that there was a significant relationship between school location and students’ academic performance in the Junior Secondary Certificate (JSC) examination in Ondo and Ekiti States, Nigeria.

Question 4: Is there any significant relationship between schools location and students’ academic performance in
Table 3: Performance level of students in the SSC examinations in Ondo State, Nigeria

<table>
<thead>
<tr>
<th>Years</th>
<th>English language (%)</th>
<th>Mathematics (%)</th>
<th>Physics (%)</th>
<th>Chemistry (%)</th>
<th>Biology (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>9</td>
<td>17</td>
<td>14</td>
<td>32</td>
<td>52</td>
</tr>
<tr>
<td>2006</td>
<td>10</td>
<td>24</td>
<td>39</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>2007</td>
<td>10</td>
<td>19</td>
<td>35</td>
<td>42</td>
<td>35</td>
</tr>
<tr>
<td>2008</td>
<td>11</td>
<td>20</td>
<td>33</td>
<td>48</td>
<td>32</td>
</tr>
<tr>
<td>2009</td>
<td>15</td>
<td>26</td>
<td>36</td>
<td>50</td>
<td>43</td>
</tr>
</tbody>
</table>

Table 4: Performance level of students in the SSC examinations in Ekiti State, Nigeria

<table>
<thead>
<tr>
<th>Years</th>
<th>English language (%)</th>
<th>Mathematics (%)</th>
<th>Physics (%)</th>
<th>Chemistry (%)</th>
<th>Biology (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>5</td>
<td>10</td>
<td>8</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>14</td>
<td>25</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>2007</td>
<td>5</td>
<td>11</td>
<td>19</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>2008</td>
<td>6</td>
<td>13</td>
<td>18</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>2009</td>
<td>9</td>
<td>16</td>
<td>19</td>
<td>27</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 5: Number of Student who scored credit and above in JSC examination on the basis of school Location in Ondo and Ekiti States, Nigeria

<table>
<thead>
<tr>
<th>Location</th>
<th>Ondo</th>
<th>Ekiti</th>
<th>Total</th>
<th>df</th>
<th>Calculated chi-square Pearson</th>
<th>Table chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>8940</td>
<td>6674</td>
<td>15614</td>
<td>1</td>
<td>112.81</td>
<td>3.841</td>
</tr>
<tr>
<td>Urban</td>
<td>11220</td>
<td>7150</td>
<td>18370</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20160</td>
<td>13824</td>
<td>33984</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < 0.05

the Senior Secondary Certificate (SSC) examination in Ondo and Ekiti States, Nigeria.

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

Ho: There is no significant relationship between school location and students’ academic performance in the Senior Secondary Certificate (SSC) examination in Ondo and Ekiti States, Nigeria.

In testing this hypothesis, data on the number of schools in the sample on the basis of urban and rural location of the schools were collected from the principals of schools using the inventory. The chi square statistic was use to test the hypothesis. Table 6 shows the findings.

In Table 6, the calculated chi-square value (182.62) was greater than the table chi-square value (3.841) at 0.05 alpha levels. As such, the null hypothesis was rejected. This indicates that there was a significant relationship between school location and students’ academic performance in the Senior Secondary Certificate (JSC) examination in Ondo and Ekiti States, Nigeria.

Question 5: Is there any significance difference in the performance of students in Junior Secondary Certificate (JSC) examinations between Ondo and Ekiti States, Nigeria?

In addressing this problem, the question was transformed into the following null hypotheses:

Ho: There is no significant difference in the performance of students in Junior Secondary Certificate (JSC) examinations between Ondo and Ekiti States, Nigeria.

In testing this hypothesis, the grades obtained by students in the Junior Secondary Certificate (JSC) examinations in the two States for 2009 were collected from the principals of the sampled schools.

In computing performance, the frequency counts of the number of students who obtained credit grades 1 to 6 in each subject in the examinations were transformed from discrete data into continuous data through secondary analysis. The weighted average performance is computed using the formula (Adenyemi, 2004):

\[ P = \frac{n_1A_1 + n_2A_2 + n_3A_3 + n_4C_4 + n_5C_5 + n_6C_6}{N} \]

where;

- \( P \) = Performance
- \( n_1, n_2, \ldots, n_6 \) = Number of times each grade occurs.
- \( A_1, A_2, \ldots, C_6 \) = Numeric weights of each grade.

The hypothesis was tested using the t-test statistic Table 5 shows the findings.

As indicated in Table 7, the t-calculated (1.45) was less than the t-table (1.96) at 0.05 level of significance. Hence, the null Hypothesis was accepted. This shows that there was no significant difference in the academic performance of students in Junior Secondary Certificate (JSC) examinations in Ondo and Ekiti States, Nigeria.

Question 6: Is there any significant difference in the performance of students in Senior Secondary Certificate (SSC) examinations between Ondo and Ekiti States, Nigeria?

In analyzing this problem, the question was transformed into the following null hypothesis:

Ho: There is no significant difference in the performance of students in the Senior Secondary Certificate (SSC) examinations between Ondo and Ekiti States, Nigeria.
Table 6: Number of Student who scored credit and above in 2009 SSC Examination on the basis of school Location in Ondo and Ekiti States, Nigeria

<table>
<thead>
<tr>
<th>School location</th>
<th>Ondo</th>
<th>Ekiti</th>
<th>Total</th>
<th>df</th>
<th>Calculated Chi-Square</th>
<th>Table Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>6386</td>
<td>4152</td>
<td>10538</td>
<td>1</td>
<td>182.62</td>
<td>3.841</td>
</tr>
<tr>
<td>Urban</td>
<td>9650</td>
<td>7418</td>
<td>17068</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16036</td>
<td>11570</td>
<td>27606</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < 0.05

Table 7: Credit Performance of Students in 2009 JSC Examinations in Ondo and Ekiti States, Nigeria

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-calculated</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondo State</td>
<td>240</td>
<td>2.41</td>
<td>1.21</td>
<td>384</td>
<td>1.45</td>
<td>1.96</td>
</tr>
<tr>
<td>Ekiti State</td>
<td>146</td>
<td>2.06</td>
<td>1.04</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p > 0.05

Table 8: Credit Performance of Students in 2009 SSC Examinations in Ondo and Ekiti States, Nigeria

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-calculated</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondo State</td>
<td>240</td>
<td>3.42</td>
<td>1.79</td>
<td>384</td>
<td>3.92</td>
<td>1.96</td>
</tr>
<tr>
<td>Ekiti State</td>
<td>146</td>
<td>1.15</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < 0.05

In testing this hypothesis, the grades obtained by students in the Senior Secondary Certificate (SSC) examinations in the two States for 2009 were collected from the principals of the sampled schools.

In computing performance, the frequency counts of the number of students who obtained credit grades 1 to 6 in each subject in the examinations were transformed from discrete data into continuous data through secondary analysis. The weighted average performance is computed using the formula (Adeyemi, 2004).

\[
P = \frac{n_1A_1 + n_2A_2 + \ldots + n_6C_6}{N}
\]

where:
- \(P\) = Performance
- \(n_1, n_2, \ldots, n_6\) = Number of times each grade occurs
- \(A_1, A_2, \ldots, C_6\) = Numeric weights of each grade

The hypothesis was tested using the t-test statistic. Table 6 shows the findings.

In Table 8, the t-calculated (3.92) was greater than the t-table (1.96) at 0.05 alpha level. As such, the null Hypothesis was rejected. This shows that there was a significant difference in the academic performance of students in Senior Secondary Certificate (SSC) examinations in Ondo and Ekiti States, Nigeria. This was reflected in the higher mean value (3.42) for Ondo State as against the lower mean value (1.15) for Ekiti State, Nigeria.

**DISCUSSION**

The foregoing analysis had shown the performance level of students in the Junior Secondary Certificate (JSC) examinations and the Senior Secondary Certificate (SSC) examinations in Ondo and Ekiti States, Nigeria. The findings revealed that the performance of students in Junior Secondary Certificate (JSC) and Senior Secondary Certificate (SSC) examinations was low.

The finding was in consonance with the findings made in earlier studies (Odesola, 2001; Adeboyeye, 2003; Adeniji, 2003). There was no significant difference between the performance of students in Ondo State and the performance in Ekiti State, Nigeria in the JSC examinations. However, in the SSC examinations, students of Ondo State outperformed students of Ekiti State. Although, the performance level of students in the examinations was low in both States, the performance in the JSC examinations was better than performance at the SSC examinations.

The low level performance of students in the examinations in the two States might perhaps be attributed to what Omotoso (1992) described as poor staffing in schools, frequent withdrawal of children from school; truancy, laziness on the account of many students; poor preparation of work in respect of many teachers; societal wrong values and general indiscipline. All these problems lent credence to the question ‘which way education in Nigeria?’ which Olabisi (1992) considered as a historical one that best summarizes the path that the Nigerian Educational system is treading. The low level performance of students in the examinations found in this study agreed with the findings of other researchers (Oke, 1992; Adeyemi, 1998; Onipede, 2003). Oke (1992) for example gave other reasons for this low level performance of students in public examinations. He argued that adolescents experience other problems, which affect their studies. These include having to repeat classes and the lack of adequate knowledge in particular subjects especially English Language, Mathematics and the Sciences. He then reported that the problem of failure has contributed a lot to the moral decadence of adolescents.

The low performance level found in the two States agreed with the findings made in previous studies.
Adeyegbe (2002) for instance, observed a decline in students' performance in SSC examinations in other States of the country and attributed this to the inadequacy of facilities in schools.

The non significance difference found in these studies in the performance of students in JSC examinations in Ondo and Ekiti States, Nigeria implies that the performance of students in the examinations in the two States was almost at par. This suggests that little or no improvement as occurred in the performance level of students in the two States over the year. The low level performance of students in the examinations further implies that the inspection of schools by the Ministries of Education in the two States might not have been adequate and effective as expected.

An evaluation of the findings shows the picture of secondary school in Ondo and Ekiti States Nigeria where the performance level of students in public examinations had been below expectation especially in the major science subjects at the time when the yearnings and aspirations of the Federal Government are towards technological development. This suggests that the objectives of secondary education in the, FRN (2004) which among other things, included the preparation of the students for higher education as not been fully achieved in the two States.

RECOMMENDATION

Base on the findings, it was recommended that the educational system in the two States needs to be revamped and made result oriented. In doing this, the teaching and learning processes in all schools in the two States need to be re-examined with the aim of improving the quality of performance of students in public examinations. The Ministries of Education in the two States should also intensify more efforts in conducting regular short visit and routine inspection to schools in a bid to monitor the performance of students in their various examinations.

CONCLUSION

Considering the findings of this study, it was concluded that the performance level of students in the JSC and SSC examinations in Ondo and Ekiti States, Nigeria was low. The implication of this is that many students from the two States might not be qualified for admission into higher instructions in the country.

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