COMPARISON OF PRIVATE AND PUBLIC SCHOOLS PRODUCT’S PERFORMANCE IN MATHEMATICS AND ENGLISH LANGUAGE FROM EDUCATIONAL TECHNOLOGY PERSPECTIVE

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Abstract
This paper examined the influence of a specified primary school education experience on the academic performance of junior secondary students I, in Methodist Grammar School, Bodija, Ibadan. The private primary schools used here are those where instructional materials are used to teach pupils, before entry into secondary school. The study involved 100 students of the school with 50 having come in from public primary schools and the other 50 from private primary school where teaching materials are used. The instrument for the study is the teacher made test in English and Mathematics. The data collected were subjected to t-test statistical analysis at 0.05 significant level. The result of the study reveals that students who had private school background out performed their counterparts who attended public primary schools in English and Mathematics. Recommendations were made for the improvement of the education of the children who could not afford the fees of private schools to have access to quality education.

Introduction
Primary education is no doubt the foundational stage of the career in the education industry. The experience gathered from that level will always influence the students’ academic performance in the secondary schools especially at the early stage of the secondary school life.

The necessity for the use of instructional materials in the teaching-learning process has been mentioned in literature (Abimbade, 1999; Salawu, Afolabi, & Taiwo, 2001). When instructional materials are properly used in teaching, they help to concretize abstract concepts and put the elements of reality into ideas that may seem impracticable (Abimbade, 1999). It is also believe that they help the learners’ memory such that he easily recollects what he was taught when the idea is needed. Instructional materials are useful more especially in the primary schools because according to Afolabi (1998) the children at this level naturally have short attention span, love to play a lot (i.e. to be active) and love to touch things and see pictures. Literature has confirmed that instructional materials of all types and forms enhance students’ academic performance in various subject areas (Adeyanju, 1991, Salawu, 1999). Such instructional materials could be in form of charts, models, realia, and so on. It is not enough for the Instructional materials to be available in the schools. They must be put to use in order to enhance the facilitation of learning on the part of the students and teaching on the part of the teachers.

Agun and Imogie (1988) among others have classified instructional materials based on the criteria of their choice. Other authors too have classified them using other criteria. However, the commonest and the cheapest of the instructional materials among visuals, audio visuals and audio are the visuals. These include charts, posters, models, realia, abacus, flash card, and so on.
Public primary schools are normally classified as class I or class II depending on the number of teachers, pupils and facilities available there. However, there are no official criteria for the classification of private schools. Parents who patronize the private schools hold diverse subjective views about such schools. Their opinions are normally based on factors like:

- the proficiency of their ward in spoken English
- the performance of their wards in common entrance examination for entry into secondary schools.
- moral behaviour of children at home.
- number of pupils in the school
- the school plant and premises (Adedapo, 2000; Salawu & Adedapo 2001).

As there are different types of private schools in terms of the quality of the teaching-learning process so also there are different types of public schools. There is no doubt that the private school proprietors pay more attention to their teacher’s input into the pupils than do the public schools (Salawu & Adedapo, 2001). They also spend substantial amount of money to provide instructional materials for the teaching and learning process. They take their students out on fieldtrip, excursions and so on, of which are absent in most public schools.

Purpose of Study

This research generally intends to find out the influence the use of teaching aids in private Nursery/Primary education has on the academic performance of students in Methodist High School, Bodija, Ibadan. The study will however specifically find out:

1. Whether the JS I students who were products of private school will perform better in Mathematics than their colleagues who attended public school.
2. Whether the JS I students who were products of private school will perform better in English Language than their colleagues who attended public school.
3. Whether the JS I students who were products of private primary schools will do better in Mathematics and English Language than their colleagues who attended public school.

Research Hypotheses

Three hypotheses were generated for this study. They are:

1. There is no significant difference in the performance in Mathematics of J.S.1 students who attended private primary schools where instructional materials are adequately used and those who attended public primary schools.
2. There is no significant difference in the performance in English language of J.S.1 students who attended private primary schools where instructional materials are adequately used and those who attended public primary schools.
3. There is no significant difference between the performance in English Language and Mathematics of JS1 students who attended private primary schools where instructional materials are adequately used and those who attended public primary schools.

Methodology

The research design for this study is the expo-facto design since there is no special treatment given to the subjects and there is no control group. All the JS1 students of Methodist Grammar School Bodija, Area, Ibadan constitute the population for the study,
out of which 100 students were sampled for the study. The students in each of the four arms of the JS1 were first stratified into two based on whether they had nursery school experience in a private school where instructional materials are used to teach before joining Methodist Grammar School Bodija, Ibadan or not. Through simple random sampling, fifty students were sampled from each stratum regardless of the arm of JS1 they belonged to.

Data Collection and Analysis

The sampled students were exposed to two achievement tests in English Language and Mathematics. Both tests are objective test with each question having five alternative answers. The test item covers the curriculum content of the students in JS1. The tests items were vetted by senior and experienced tutors in Mathematics and English Language.

Results

The data collected with the research instruments are analysed as follows:

Hypothesis 1: There is no significant difference in the performance in Mathematics between the students from private schools where instructional materials are used to each and students from public schools.

Table 1: t-test of difference between mean of products of private schools and means of products of public school score in Mathematics.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Degree of Freedom</th>
<th>t-cal</th>
<th>t-critical</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private School Product</td>
<td>50</td>
<td>17.52</td>
<td>2.96</td>
<td></td>
<td>98</td>
<td>19.4</td>
<td>1.98</td>
</tr>
<tr>
<td>Public School Product</td>
<td>50</td>
<td>10.54</td>
<td>3.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since the calculated t value (19.39) is greater than the table value of t (1.98) at the alpha level and degree of freedom, hypothesis 1 is rejected. Hence, there is a significant difference in the scores of pupils from private schools where instructional materials are used and those from public school in Mathematics.

Hypothesis 2: There is no significant difference in the performance in English between the students from private schools where instructional materials are used and students from public schools.

Table 2: t-test of difference between the means of the products of private schools and products of public schools in English

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Degree of Freedom</th>
<th>t-cal</th>
<th>t-critical</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private School Products</td>
<td>19.24</td>
<td>2.08</td>
<td>50</td>
<td></td>
<td>98</td>
<td>38.18</td>
<td>1.98 Do not Accept Ho 2</td>
</tr>
<tr>
<td>Public School Products</td>
<td>10.54</td>
<td>3.31</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparison Of Private And Public Schools...

t-cal = 38.18 > t-cri = 1.98

Since the 't' calculated (38.18) is greater than 't' critical/table (1.98), we reject the hypothesis 2. Hence, there is a significant difference in the performance in English of pupils from private schools where instructional materials are used and public schools.

Hypothesis 3: There is no significant difference in the performance of the students from private schools where instructional materials are used in both Mathematics and English tests.

Table 3: Two tailed t-test of difference between the score in Mathematics and English for pupils from private school where instructional materials are used.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Degree of Freedom</th>
<th>t-cal</th>
<th>t-critical</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score in Mathematics</td>
<td>17.52</td>
<td>2.96</td>
<td>50</td>
<td></td>
<td>5.38</td>
<td>1.98</td>
<td>Do not accepts Ho 3</td>
</tr>
<tr>
<td>Score in English</td>
<td>19.24</td>
<td>2.08</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

t-cal 5.38 > t-critical 1.98

Since t-calculated is greater than the t-critical, we reject the hypothesis Ho3. Hence, there is a significant difference in the scores of pupils from private schools where instructional materials are used in English and Mathematics.

Discussion

The findings of this research show that

1. Students who attended private primary schools where instructional materials are used before joining the secondary school system performed better in Mathematics than those who attended public primary schools.
2. Students who attended private primary schools where instructional materials are used before joining the secondary school system performed better in English Language than those who attended public primary schools.
3. Students who attended private primary schools where instructional materials are used before joining the secondary school system, did better in English Language than in Mathematics.

These findings seem to discredit, to some extent, the standard of education in the public schools since their products could not compete favourably with the products of the private schools. This may be flashing the danger light as regards the future of the next generation of elders and the fate of education industry in this country. The anticipated future problem becomes more evident when one considers the proportion of the Nigerian populace living below the poverty level vis-à-vis the financial involvement of sending one's child to the private schools where instructional materials are used. Perhaps the recent innovative moves of some state primary Education Boards where they now create special schools having educational resource centres and libraries may restore the lost glory to public primary schools.
Conclusion

Children whose parents could not afford to patronize private primary schools should not be at disadvantage when they get to the secondary school. If the teachers in public primary schools are given the proper orientation about the necessity for instructional materials in the teaching-learning process, the products of public primary schools too will be adequately equipped for the secondary school education later in life.

Recommendations

1. Teaching English and Mathematics with relevant instructional materials should be emphasized in the primary schools in order to prepare the pupils for the learning task in the secondary schools. Inspectors of education and proprietor should ensure that teachers use instructional materials to teach these two subjects.

2. The use of instructional materials by teachers in the public primary school should be made compulsory. This will enhance pupils performance and probably make it easy for the products of public primary schools to compete with the products of private primary schools when they meet in the same secondary school later.

References


Adeyanju, J. J. (1991). Production of cheap instructional materials for 6-3-3-4 system education with emphasis on primary school level”. In I. Imogie (Ed.), *Trends in educational technology*: Ibadan, Y-Books.


