A Comparative Study of Male Student’s Performance in English as Second Language Classrooms in Niger State, Nigeria

Usman Idris Gwarjiko
Full Time Commissioner, Niger State Secondary Education Board, Minna, Niger State, Nigeria
Email: ugwarjikol [AT] gmail.com

ABSTRACT--- The purpose of this study was to investigate the effect of gender streaming on the performance of senior secondary school level male students in English language in Niger State. In the course of the work, the researcher compared the performance of male students in the single and mixed-gender streams in English Language. The population of the study was 53,468 from 248 schools of both single and mixed gender streams. Out of this, one single-gender male class of sixty-eight and one mixed-gender class of thirty-three male students were sampled from senior secondary schools in Minna metropolis. The researcher adopted quasi-experimental research design. The instruments used for data collection were the NECO 2011 November/December past question papers that served as the test instruments, the curriculum content and prepared lesson notes used during treatment. Frequency counts and the Arithmetic means were used for descriptive analysis. The t-test statistical technique was used for inferential analysis to test the hypotheses. This study is anchored on Bandura (1986)’s social learning theory since it emphasises the importance of biological, social and cultural impacts on human behavioural development and learning especially on gender and genders specific traits and roles. The results revealed that there was a significant difference between the performance of single and mixed-gender male students in both pretest and posttest. Equally too, the single-gendered male students performed better than the mixed-gender male ones and the results of the single-gender male students were generally encouraging while that of mixed gender male students was very poor. It was therefore, concluded that the single-gender streaming was effective in enhancing better academic performance for male students especially in English language in Niger State. Consequently, the researcher recommends that the Niger State Government encourage the single-gender stream system through a vibrant, viable and feasible policy with workable implementation strategy.

Keywords--- Single-gender streaming, placement, single-gender male students, mixed-gender male students and English language

1. INTRODUCTION

Students’ poor performance in Senior Secondary Certificate Examination (SSCE) conducted by both the West African Examination Council (WAEC) and the National Examination Council (NECO) (Eze, 2011) is really disturbing especially that educationists now emphasis much on educational accountability. It is worthwhile to reiterate on the role and function of English language in Nigeria as that which warrants concern when students’ performance in it is poor. English language is used as the medium of instruction and in learning other subjects in all Nigerian educational institutions. Equally too, no student is qualified for admission into the Nigerian universities and other tertiary institutions without scoring a credit pass in it in addition to other four subjects in the Senior Secondary Certificate Examination (SSCE) conducted by the West African Examination Council (WAEC) and the National Examination Council (NECO). One other serious issue worthy of note at this point of discourse is that, in Nigeria today, during the placement of students into either schools or classrooms to enhance better performance, the factors mostly considered are ability, aptitude, occupation or trade or career choice, science or arts inclination but always at the exclusion of gender streaming factor. Where and when gender comes to mind, it is an  haphazard exercise. It is neither based on policy guideline or research report nor bearing in mind academic performance benefit but on grounds of morality or religious injunctions or obligations.

Secondly, this study was motivated by issues related to gender equity in education especially in northern Nigeria despite several declarations and provision of legislative tools and other support by powerful international bodies such as UNICEF, World Bank, UNESCO etcetera on this issue. These include the inequity between female and male educational opportunities, low level of enrollment, alarming withdrawal rate resulting in low completion rate, poor or lack of attention and support for the girl-child education, unequal attention given to males and females students especially in coeducational classrooms among others. In addition, the assertion that females have better aptitude and competence in learning language than their male counterparts and the availability of controversial and inconsistency of results of studies on the academic performance of both female and male students’ performance when they are streamed according to
gender is academically challenging to have prompted this study. Positive study results on gender streaming include those by Lee and Lockheed (1990); Mallam (1996), Kurumeh, Igyu and Mohammed(2013); Bosire, Mondohand Barmao, (2008); Sax, (2007) etc and unfavorable study results includethose of Rowe (1988); Oludipe (2012); Kang’ahi, (2012); Pahlke, E., Hyde, J. S. Allison, C. M. (2014) etc.

Therefore, this study investigated the impact of gender streaming on male students’ performance in English language at the senior secondary school level in Niger State. The finding is aimed at curbing the high rate of students’ failure in English language in West Africa Examination Council (WAEC) and National Examination Council (NECO) Senior Secondary Certificate Examinations in Niger State, Nigeria when implemented.

1.1. Objectives of the Study
This study was designed to find out the:
(a) impact of gender streaming on the academic performance of male students in mixed and single streams in English language in senior secondary schools in Niger state

1.2. Research Questions
In the course of this study, the research sought answers to the following question:
1. Will there be a significant difference between the academic performance of male students in single-gender and mixed gender streams in English Language at the senior secondary school level in Niger state?

1.3. Research Hypothesis
The following hypothesis was formulated to guide this study:
There is no significant difference between the academic performance of male students in single and mixed gender streams in English Language at the senior secondary school level in Niger State.

2. REVIEW OF THE RELATED LITERATURE
Harvey (2011), Dweck et al. (1983) asserted that gender difference impact on learning due to differences in terms of reinforcement strategies, sociocultural environmental variables and gender learning due differences in male and female genders. There are also propositions that males and females vary in their cognitive abilities in language (Amin, 2006; Sax, 2007; Burman et. al. 2008; Gomez, 2011; Hodgins, 2012 ecetera). Hence, the justification to separate them in the course of instruction. This position was challenged as not impacting enough to result into any significant difference in the performance of the genders (Rowe, 1988; Haker and Nash, 1997; Lee & Lockheed, 1990 and Pahlke, Hyde and Allison, 2014).

The Gender and Education Association (GEA) (2012) observed that certain subjects are gender stereotyped, for example, males believed to be better in mathematics, sciences and engineering and are therefore, masculine subjects and females believed to be better than males in language arts etc. and therefore a feminine subject. So also, the National Council of Teachers of English (NCTE, 1995) observed earlier that there was serious gender inequity in the instructional materials aspect of curriculum and instruction when even the number of female characters in literature books was discovered to be fewer than that of males and that both male and female characters displayed traits which are gender stereotypical. These observations by (GEA) and (NCTE, 1995) were made to make a case for single gender education or streaming.

A number of empirical studies were conducted on both single and mixed gender streaming to ascertain the efficacy of each in the contemporary educational practices. NASSPE (2011) reported a study by the National Foundation for Educational Research commissioned in England to study the effect of school size and type (single-sex vs. coeducational) on academic performance. The Foundation studied 369,341 students from 2,954 public high schools throughout England. The study revealed that even after controlling for students’ academic ability and other background factors, a significant difference was reported in the performances of the two stream types and males in single gender school did significantly better than those in mixed gender schools in all subjects.

In Manchester University in England, researchers used before and after approach to investigate the effectiveness of single and mixed gender streaming systems in enhancing students’ academic achievement. They assigned students at five public schools either to single-sex or to coed classrooms randomly. The result showed a significant difference in the performances of the two streams. The result indicates that 68 percent of boys who were reassigned to single-gender stream classes subsequently passed a standardized test of language skills against 33 percent of boys assigned to mixed gender stream classes. (Henry Juliet, in NASSPE, 2011). Carol (2006) investigated the effects of single-sex and mixed-sex classes on the academic achievement of middle school students at Stonewall Jackson Middle School in Charleston, West Virginia cutting across the students’ sex, minority status, socio-economic status, and special education status using a sample of 279 students. The result revealed a significant difference in the performances of the two streams. The results of the study reveal that the use of single-sex classes significantly improved student achievement in reading/language arts and math with greater advantage for single gender classes for females.
Bosire, Mondoh and Barmao (2008) report the result of their study on the effect of streaming students by gender in Mathematics achievement using 1,489 candidates in four secondary schools in Nakuru District, Kenya. The result show a significant difference in the performances of the two female streams. The result indicates that male students in the normal mixed-sex school scored significantly higher than those in single gender schools. This result indicates that males taught in mixed-class scored higher than those taught in single-gender stream class environment. Pahlke et. al. (2014) did a study on the effects of single-sex compared with coeducational schooling on students’ performance and attitudes. In doing so they did a meta-analysis of results of studies undertaken and published from 1968 to 2013. The results did not reveal significant evidence to show any difference in the performance between males in single-sex or coeducational schools/classrooms.

Other hand, Lee and Lockheed (1990) studied the influence of gender stream on students’ performance in Nigeria in mathematics using 1,012 ninth grade students and found no significance in gender gap. However, they found that in single-sex schools outperformed males in co-educational schools. Rowe (1988) sampled 398 Australian middle-school students’ scores to determine if single gender stream can improved performance in mathematics. The result revealed no significant difference between the single gender streams/classes and the coeducational ones. Gilson (1999) examined the effects of single-sex classes on males’ performance and attitudes toward math by comparing single sex and co-educational math classes in private middle schools in the United States and found no significant difference in their performances.

The majority of reviewed literature above have indicated the positive aspect of single gender streaming of female students. For the fact that there are still a few whose results are on the contrary means that some inconsistency still results; and this inconsistency justifies further studies of this type in this field of educational endeavor.

3. METHODOLOGY

In this study, quasi-experimental research design (Bichi 2004) was adopted. The population in this study was 53,468 senior secondary 3 (SS3) students of 2013/14 academic session from 248 senior secondary schools (SSS) spread across Niger State. Two classes of 68 single gender males students and 33 mixed gender male students were sampled in Minna metropolis using simple balloting method. The instruments used for data collection were the curriculum content culled from the National Curriculum, prepared lesson notes of the lessons taught during treatment by the research assistant, and the November/December past question paper of National Examination Council (NECO) 2011 Senior Secondary Certificate Examination (SSCE) used for pretest and posttest. The Niger State Secondary Education Board’s schools used for the study were personally visited by the researchers. First, a pretest was administered and treatment of the respondents for 8 weeks followed in their existing condition. The used single and mixed classrooms were taught by the research assistant using the same textbooks, curriculum content, lesson notes and tested at the same time using the same instrument for both pretest and posttest for all students. At the end of the treatment, a posttest was administered and the scores served as the data.

Statistical means and standard deviation were used in answering the research questions and t-test was used to test the hypothesis to determine if the difference between the means of the paired sample variables were significant or not. All data were analysed by using the Statistical Package for Social Science (SPSS) computer program. An alpha level of .05 was set as the criterion for the level of significance.

4. SUMMARY, ANALYSES AND DISCUSSIONS OF THE RESULTS

The results in table 1 show the mean scores and t-test result of secondary school male students in English language.

Table 1: Mean (x) and t-test Scores for Single Gender Stream Male Students (SGSMS) and Mixed Gender Stream Male Students (MGSMS) in Pre-test

<table>
<thead>
<tr>
<th>Stream Type</th>
<th>N</th>
<th>Mean (x)</th>
<th>SD</th>
<th>df</th>
<th>Calculated t</th>
<th>Critical t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGSMS</td>
<td>68</td>
<td>23.90</td>
<td>9.40</td>
<td>98</td>
<td>4.51</td>
<td>1.98</td>
</tr>
<tr>
<td>MGSMS</td>
<td>33</td>
<td>15.10</td>
<td>9.29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant
The results in table 1 above show that the unpaired t-test computation of mean scores 23.90 with standard deviation of 9.40, degree of freedom 99 and 15.10 with standard deviation of 9.29 has resulted in calculated of 4.51. The critical value of t is 1.98 at 99 degree of freedom has indicated that the difference between the gender male stream and mixed gender male stream in the pretest was significant, hence, rejecting the hypothesis.

Table 2: Mean (x) and t-test Scores for Single Gender Stream Male Students (SGSMS) and Mixed Gender Stream Male Students (MGSMS) in Post-test

<table>
<thead>
<tr>
<th>Stream Type</th>
<th>N</th>
<th>Mean (x)</th>
<th>SD</th>
<th>df</th>
<th>Calculated t</th>
<th>Critical t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGSMS</td>
<td>68</td>
<td>25.60</td>
<td>8.85</td>
<td>98</td>
<td>4.62</td>
<td>1.98</td>
</tr>
<tr>
<td>MGSMS</td>
<td>33</td>
<td>15.10</td>
<td>9.29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in table 2 above show that the computed unpaired t-test have mean values of 23.60 in their posttest with 9.40 standard deviation and 15.10 with standard deviation of 9.29 resulted in 4.62 in their post-test which was significant when compared with the critical value of 1.98 at 99 degree of freedom. Based on the results of pre-test and post-test, the hypothesis is rejected as shown in the consistency of both results (pre-test and post-test).

The major finding in this study is that there is a significant difference between mixed and single gender stream male students in their performance in English language. This has been justified by Harvey (2011), Dweck et al. (1983) who asserted that gender difference impacts on learning due to differences in terms of reinforcement strategies, sociocultural environmental variables and gender learning due differences in male and female genders. The reported result above was also justified by the conceptual propositions on gender difference on language acquisition, (Hodgins, 2008 and Gomez 2011) and brain structural, developmental process and functional differences (Lenroot et al. 2007; Burman et al., 2008; Amin, 2006 and Sax in NASSPE, 2011). Equally too, Bosire et al. (2008) & Williams (2011) have justified this finding on gender differences in brain hemispherism which makes males to be better in sciences and engineering than females, better in language (Arts) and music.

Equally too, the result was in agreement with the propositions that males and females vary in their cognitive abilities in language, (Burman et al., 2008; Amin, 2006; Hodgins, 2012; Gomez, 2011), hence the need to separate them in the course of instruction. Some previous empirical research findings which are in consonance with the findings of this study are those of Henry (2001), Carol (2006) Bosire et al. (2008) and NASSPE (2011); who found significant difference in performance between males in single and mixed gender streams. This finding is however not in agreement with previous findings of Lee and Lockheed (1990); Gilson (1999) and Pahlke et al. (2014) who reported no significant difference in their studies of single and mixed-gender stream male students.

It is obviously clear from the discourse above that the male students in mixed gender stream perform less from the findings of this study though findings of some earlier studies appears inconsistent. The result of this study however has justified the provision of more viable single gender stream environment for male students in senior secondary schools in Niger State, Nigeria. It is hoped that this could bring down the high rate of students’ poor performance in their secondary school certificate examinations.

5. CONCLUSION
From the findings of this study it can be concluded that the single gender stream system could be a more favourable academic environment for male students than the mixed gender environment.

6. RECOMMENDATIONS
Based on the findings of this study, it is recommended that the Niger State Government should evolve a deliberate policy to introduce and implement gradually the single gender education programme in the state. It should gradually deemphasise the use of mixed gender stream environment to deliver instruction.
7. REFERENCES

- National Examinations Council (NECO) 2011 May/June English Language examination marking scheme.
- National Examinations Council (NECO) 2011 May/June English Language examination markingscheme.
- National Examinations Council (NECO) 2011 May/June English Language examination question paper.

Dr. (Hon.) U. I. Gwarjiko is a professional teacher of English as a second language by training and practiced for 19 years. He joined politics during which he was not too far from the academics. He served as an elected parliamentarian (Hon. Member) in the Niger State House of Assembly, appointed and served in the capacities of Hon. Commissioner of Education, a pioneer Commissioner for Science and Technology in Niger State Executive Council, a Full Time Commissioner, Niger State Universal Basic Education Board and now a Full Time Commissioner, Niger State Secondary Education Board, Minna.