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Impact of Gender Streaming on Performance in English Language: A Case Study of English as a Second Language Secondary School Classrooms in Niger State, Nigeria

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Abstract:

The objective of this study was to investigate the impact of gender streaming on the performance of senior secondary school level students in English language in Niger State. In the course of the work, the researcher compared the performance of students in single gender and mixed gender streams in English Language at senior secondary school level in Niger State. The population of the study was 53,468 from 248 schools of both single and mixed gender streams. Out of this, a total of one hundred and fifty-nine (159) students were sampled from three senior secondary schools, all in Minna metropolis. The researcher used quasi experimental research design. The instruments used for data collection were the NECO 2011 November/December past question papers which 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 to answer the research questions. 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. This theory emphasizes on the importance of biological, social and cultural impacts on human behaviour, development and learning, especially on gender and genders specific traits, behaviour and roles. The results revealed that there was a significant difference between the performance of single gender and mixed gender stream students. The single gender students outperformed the mixed gender students. The result of the mixed gender stream students was generally poor. It was therefore, concluded that the single gender stream instructional environment was found to be more effective in enhancing better students' performance than the mixed gender streaming strategy especially in English language in Niger State. Consequently, it is recommended that the Niger State Government lends more support for the single gender streaming.

Keywords: Gender streaming, placement, mixed gender, single gender

1. Background to the Study

It is obvious that inspirations ginger actions, counteractions and their directions. Hence, 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 the first motivating factor.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; and 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 not based on any policy guideline or research report and also not bearing academic performance benefit in mind but on grounds of morality or religious injunctions.

Secondly, this study was motivated by a number of factors that are related to gender equity in education in 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.

Other motivating factors include 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 females

and males students performance when they are streamed according to gender. Positive study results include Lee and Lockheed (1990); Mallam (1996), Kurumeh' M. S, Igyu' C. O, and Mohammed A. S, (2013); Bosire, J. Mondoh H. and Barmao, A. (2008); Sax, (2007) etc and unfavorable study results include 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 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.

2. Objectives of the Study

This study was designed to find out:

- a. the impact of gender streaming on the academic performance of single gender stream students (SGSS) and mixed gender stream students (MGSS) in English language in senior secondary schools in Niger state
- b. the streaming type (mixed or single) that yields better academic performance in English language in senior secondary schools in Niger state.

3. Research Questions

This study sought answers to the following question.

- a. Is there significant impact of gender streaming on the academic performance of single gender stream students (SGSS) and mixed gender stream students (MGSS) students in English Language at senior secondary school level in Niger state?
- b. Which of the streaming type (mixed or single) yields better academic performance?

4. Research Hypothesis

In this study, the following null hypothesis was tested:

(H₀): There is no significant impact of gender streaming on the academic performance of single gender stream students (SGSS) and mixed gender stream students (MGSS) in English Language at the senior secondary school level in Niger state.

5. Basic Assumptions

In this study, the researcher makes the following basic assumptions:-

- i. Consideration of gender difference in students' placement into senior secondary will impact and improve on their academic performance in Senior Secondary Certificate Examinations in English Language in secondary schools in Niger State.
- ii. Lack of consideration for gender difference in placement of students in senior secondary schools has contributed to the high rate of failure in their Senior Secondary Certificate (SSCE) Examinations in English Language in Niger State.
- iii. Gender streaming of students into senior secondary schools without policy guidelines is the practice currently in Niger State.

6. Significance of the Study

In Nigeria, it is clear that the government does not give much attention to the issue of gender streaming when it comes to the matter of streaming or placing students into senior secondary school level or when allocating classes to them in schools. In most cases, government's concentration is on career/professional predictions such as arts, science, technical or vocation aptitudes, and day or boarding variables. The exploitation of gender streaming strategy for academic performance implications is never viewed with much seriousness. Therefore, since this study is designed to investigate whether or not streaming students according to gender composition can significantly impact on senior secondary students' academic performance particularly, in English Language, its findings may help teachers, school administrators and managers, school counselors, curriculum specialists, teacher trainers and teacher retrainers. The impact on all these stakeholders will result in ameliorating the alarming failure rate in English language in SSCE results in Niger State.

First, this study will be useful to Nigerian teachers in improving their instructional strategies to enhance learning through their better knowledge and understanding of the impact of gender differences. Secondly, this study will help in guiding teachers in students' sitting arrangement in the classroom, bearing in mind the seeing and hearing differences in males and females. This is of particular relevance in mixed gender learning environment. In addition, the knowledge of the fact that males and females learn differently, will positively influence the decision of teachers on the instructional strategies to adopt to cater for the differences in the students. This can be facilitated through their knowledge of the impact of some vital gender differences derivable from the results of this research.

In addition, the result of this study will be useful to teachers in enhancing effective classroom organization and management. Knowledge on the importance of basic differences between males and females will assist teachers while planning their lessons and during teaching, they will be able to make positive concession and consideration for gender differences. This way, the result will, no doubt, help improve the students' performance in their senior secondary examinations.

Furthermore, considering one of the roles and functions of English Language in Nigeria as the language of education (medium of instruction) in our schools, if the results impact on students' performance in English language, it will in turn enhance their effectiveness and proficiency to learn other subjects in the schools.

7. Review of the Related Literature

There are a number of research works which revealed the positive impact of gender streaming on improving academic performance especially at the senior secondary school level (Lee and Lockheed, 1990, Mallam, 1996, and Sax, 2007 etc). Reasons advanced by some scholars include their proposition and findings that males and female are different in several ways such as in hearing acuity, (Corso in Algoe 2012), the rate and sequence of brain development, (Lenroot et al. 2007), language tasks execution (Gomez, 2011), brain lateralization (Harriet, Robert & Marvin, 1999, Burman, Tali & James, 2008) and different learning styles between genders (Hodgins, 2011, and Algoe, 2012) and therefore learn differently. No doubt, each of this poses some pedagogical implications and challenges in the classroom.

There are also some research works on the propositions that assert 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 though challenged that these differences cannot cause any significant difference in the performance of the genders (Rowe, 1988; Haker and Nash, 1997; Lee & Lockheed, 1990 and Pahlke, Hyde and Allison, 2014).

This study is anchored on Bandura (1986)'s social learning theory. This theory emphasises on the importance of biological, social and cultural impacts on human behaviour, development and learning especially on gender and genders specific traits, behaviour and roles. These factors are what determine a person's gender stereotype action and words.

Many empirical reviews indicate the single gender stream improves academic performance in favour of females (NASSPE, 2011; O'Reilly, 2000; Akinyele, 2012; Kathigeyan & Nirmala, 2012; Kurmeh et al. 2013 and Bosire et al. 2008 etcetera). Some other research findings however, show that gender factor in placement/streaming strategy makes no difference in academic achievement (Rowe, 1988; Oludipe, 2012; Kang'ahi, 2012 etc.).

These review results indicate inconsistency and controversy which throws the change to undertake more research works of this one in this field of academic endeavor in Niger State, Nigeria..

8. Methodology

In this study, quasi experimental research design (Bichi 2004) was used. 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. A total of 159 students made up of 68 single gender stream males, 47 single gender stream females and 44 mixed gender stream male and female students were sampled as a class each for the study. All schools used are in Minna metropolis.

In all, first, stratified sampling technique was used to sample the three schools and simple balloting technique was used to sample a class each from the stratified sample schools.

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, 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 three schools were used for the study were personally visited by the researcher. First, a pretest was administered and treatment of the respondents followed for 8 weeks in their existing three classes of single gender stream male students, single gender stream female students and mixed gender stream of male and female students. The three schools used were taught by the same research assistant using the same text books, curriculum content, lesson notes and tested at the same time using the same instrument for both pretest and posttest. At the end of the treatment, a posttest was administered and the scores served as the data.

Frequency counts, simple percentile and statistical means were used in answering the research questions and t-test was used to test the hypotheses to determine if the difference between the means of the five paired sample variables were significant or not. All data was analyzed 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.

9. Presentation of Results and Analyses

The presentation and analyses of the results of the study comparing the performance of the single gender stream students (SGSS) and the mixed gender stream students (MGSS) in the course of which, the research question was answered and the hypothesis was tested and reported as follows:

Table 1 below contains the result of single gender stream and mixed gender stream students' performance in both pre-test and post-test in English Language at senior secondary school level in Niger state.

Test	Stream Type	N	Mean (x)	SD
Pre-test	Single gender stream students	115	20.70	9.30
	Mixed gender stream students	44	14.60	8.72
Post-test	Single gender stream students	115	24.90	7.71
	Mixed gender stream students	44	14.70	9.20

Table 1: Mean Scores (x) and Standard Deviations for Single Gender Stream Students (SGSS) and Mixed Gender Stream Students (MGSS) in pre-test and post-test

The results in table 1 above indicate that the 115 sampled single gender stream students of both genders have a mean score of 20.70 with standard deviation of 9.30 and 44 mixed gender stream students have a mean score of 14.60 with standard deviation of 8.72 in

their pre-test. In the post-test, the single gender stream students have a mean score of 24.90 with standard deviation of 7.71 and the mixed gender stream students got 14.70 as their mean score with standard deviation of 9.20.

10. Summary and Discussion of Findings

The findings in this study was that there was a significant difference between the performance of single gender stream students (SGSS) and mixed gender stream students (MGSS) in respect of both males and females in English Language at the senior secondary school level in Niger state. The findings of a number of earlier studies that have agreed with this include that of NASSPE (2011), O'Reilly (2000), Karthigeyan & Nirmala (2012), Kurmeh et al. (2013) and Bosire et al. (2008) which revealed that there was a significant difference in the performance between the single gender stream students and mixed gender stream students.

Reasons advanced by some scholars which also justify the above finding include their proposition and study results that males and female are different in several ways such as in hearing acuity, (Corso in Algoe 2012), the rate and sequence of brain development, (Lenroot et al. 2007), language tasks execution and brain lateralization (Harriet, Robert & Marvin, 1999, Burman, Tali & James, 2008) and learning styles (Hodgins, 2011, and Algoe, 2012) and therefore learn differently. No doubt, each of this pause some pedagogical implications and challenges in the classroom. Though the efficacy of these proposition and study results were challenged by other scholars. There are also some theoretical reviews on 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. Other topics reviewed are gender and language, and gender curriculum and instruction.

On the contrary, Rowe (1988), Haker and Nash (1997) Lee & Lockheed (1990) and a very recent result of meta-analyses of Pahlke, Hyde and Allison (2014) revealed no significant difference between the performance of single gender stream and mixed gender stream students. The result of this has also proved right Bandura (1986)'s social learning theory which emphasizes on the importance of biological, social and cultural impacts on human behaviour, development and learning especially on gender and genders specific traits, behaviour and roles since they eventually what a person is made up.

11. Conclusion

Based on the finding of this study, it can be concluded that the single gender stream environment has proved effective in enhancing a good academic performance especially in English language in Niger state. Based on the finding of the study it can also be concluded that mixed gender stream, on the contrary, has proved to be less effective in enhancing academic performance..

12. Recommendations

Based on the findings of this study, it is recommended that the Niger State Government should:

- i. Evolve a deliberate policy to introduce and implement gradually the single gender education programme in the state. Teachers should be trained to equip them with the knowledge and pedagogical skill to work with both males and female students under different learning styles, conditions and environment.
- ii. deemphasise the use of mixed gender stream environment to deliver instruction due to the overall poor performance of both male and female students in them aimed at its gradual phasing out.

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