EFFECT OF CLASS CLASSIFICATION, CLASS SIZE AND GENDER ON ACADEMIC PERFORMANCE AMONG FATIMA HIGH SCHOOL STUDENTS IN IREWOLE LOCAL GOVERNMENT AREA OF OSUN STATE, NIGERIA

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Abstract:

The study investigated the effect of class classification, class size and gender on academic performance. Specifically, the objectives of the study was to evaluate the effect of class classification, class size and gender on academic performance of senior secondary school students in Mathematics and English Language. However, three research questions and hypothesis were designed to guide the study. The study employed expo-facto research design and purposeful sampling technique which is stratified in nature in selecting all one-hundred and eighty nine (189) Grade II (SSS II) students participated in the Unified Promotion Examination (UPE) conducted by Osun State Ministry of Education in May, 2017. In this regards, Grade II students' scores in Mathematics and English Language was used to proxy academic performance which are disaggregated into three strata such as class stream (Science, Art and Commercial), gender (female and male) and class size (large class size and small class size). Inferential statistics such as t-statistics was used to analyse the generated data. The findings of the study revealed that there was no significant difference between the academic performance of students in Science and Art stream, Science and Commercial stream and Art and Commercial stream while significant difference existed in the academic performance of students in English Language between Science and Commercial stream as well as Art and Commercial stream respectively but in favour of Science class and Art class. The study also indicated that there was no significant difference in the performance of students in both Mathematics and English Language not only on the basis of the number of the students allocated into a class (Class size) but also gender

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quality (female or male). It was concluded that the explanatory variables such as class classification, class size and gender are not only the necessary condition in determining academic performance among students but also work hand-in-hand with other factors in order to guarantee favourable academic performance. The study recommended intensification of efforts by school authority towards monitoring of students in doing class work, assignment, punctuality in school and re-visitation of the classroom instructional practice by the teachers among others.

Keywords: class classification, class size, gender, academic performance

1. Introduction

The school is a social and learning agent that provides the environment upon which a child is formally educated in order to attain educational goals. It seems that human beings have unlimited capacity to learn, which may be limited by the factors such as behavioural patterns, personal attribute of the learner and facilities that the immediate environment offers for such an individual. This corroborates the submission made by Umoh, (2006) that nature only provides the raw materials in form of potentials, but the environment determines its level of development among users. However, in a formal school setting, the classroom and classroom discussion play essential role not only to students but also to teachers. Osim, Chika and Isaac (2012) submitted that the classroom environment may be a great challenge to teaching-learning situation. This is because according to them, a teacher may need to maintain his or her position in front of the classroom throughout the lesson period without being able to move around from time to time to supervise what the students are doing due to fact that there is hardly a space between one row of lockers and another. As a result, the teachers may employ the evaluation techniques which involve questions that require yes/no or true/false answers or objective tests to ease marking and give no room for writing as well as creative skills among students (Wosyanju, 2005).

A classroom can be seen as a room in which all students in a particular grade or in a division of a grade meet at certain times and under the supervision of a teacher who does academic and non-academic assignments. While, classroom discussion is a sustained exchange between and among teachers and their students with the purpose of developing students' capabilities or skills and/or expanding students' understanding—both shared and individual—of a specific concept or instructional goal (Witherspoon, Sykes, and Bell 2016). However, some of the yardsticks commonly employ by the authority and management of senior secondary schools in the placement

of students into a classroom which stimulates classroom discussion depend on three key factors which are previous academic achievement (i.e. students grade in Junior School examination results), interest of the students and guidance towards the class, and the availability of the class of interest in the school in which a student applies to. These factors when taking into cognizance form the basis upon which students seeking admission into any grade at Senior Secondary Schools level are categorised into different classes—Science, Art and Commercial classes.

However, one of a pressing concern facing majority of students as they pass out of the grade 10 (Junior Secondary School III) is what stream to choose that will enable them to pursue a career of their choice which will be in synchronicity with their aptitudes. Confusion usually emanate on whether to go into Arts, Science or Commercial class after grade 10. While arriving at a conclusion over what stream to choose, students are faced with dilemmas regarding what stream is better than the other, be easier for them to pursue, enable them to achieve their dreams and aspirations and allow them to have a profession that would give them monetary as well as job satisfaction. It should be noted, no stream, whether it is Science, Commerce or Humanities, is better or worse than the other. Sometimes, gender may need to be taken in to consideration when determining and deciding the stream suitable for a student. As a consequent, Anagbogu (2002) opined that boys are superior to girls in terms of cognitive and logical reasoning. Agboola (2006) reported that male students experience and exhibit less anxiety about science subjects than their female counterparts. Okoye (2008) postulated that students' academic performance in the school subjects is predicated more on personal effort of the leaners involved irrespective of his/her gender kind.

Gender is the range of physical, biological, mental and behavioural characteristics pertaining to and differentiating between the feminine and masculine (female and male) population. Filgona and Sababa, (2017) advanced that gender is one of the explanatory variable that need be factored in when assessing students' academic performance in certain subjects. Yara and Ndirangu (2012) stressed that cultural factors like sexual experience, early marriage, female genital mutilation and early pregnancy contribute to academic performance of female students. The evidence from England indicated that there is gender gap in English Language in favour of female students with an average of 12 percentage points and a range of 6 to 18 percentage points. In contrast, the narrower gender gap in Mathematics has shifted in favour of male students with an average of 4 percentage points and a range of 1 to 8 percentage points between 1951 and 1991) with a peak between 1978 and the mid-1980s, to a slim female advantage from 1997 to the present 1to 2 percentage point advantage.

Ahmad, Pervaiz, and Aleem, (2015) identified parental education, participation in debates, better income support, use of internet in studies, and time spent in studies other than class hours as major contributors for higher academic performance among female than their male counterpart. Ashetu, (2015) reported the presence of gender gap in Mathematics, English Language and Aptitude test in favour of male students. Ariz, and Farah (2017) reported mixed outcomes in which the performance scores of males were found higher in Finance and Marketing disciplines, whereas scores of females were higher in Human Resource and International Business disciplines. In another development, Oba and Lawrence (2014) agreed that gender plays insignificant role towards attitude and performance in Physics. It appears that student attitudes towards school subjects and his/her academic achievement may be influenced by the number of the students place in a classroom.

Adeyemi, (2008) pointed out that class-size is an educational tool that can be used to describe the average number of students per class in a school and measure the performance of the education system. Yusuf, Onifade and Bello, (2016) found that class size has a highly significant impact on students' attitudes to studies in secondary school, such that it affects students' attention most strongly, then punctuality, motivation and participation but not the rate of participation and asking or answering questions. It is on this note that the ability of the teacher to recognize the students and accord individual assistance to them depends on students' population or class size. The condition (conducive or unconducive) of the classroom will affect the teacher's pedagogical delivery and the learner's reasoning or interest in the teaching and learning process. Small classes could help to improve teacher morale, reduce discipline problems, and reduce the need for remediation through early identification, prevention of problems, improved graduation rates, lower dropout rates, and decrease teen pregnancy rates (Miller-Whitehead, 2003).

Similarly, more time to cover curriculum, higher levels of student-student and student-teacher engagement, and safer schools with fewer discipline problems are other positive impact of smaller class size (Normore and Ilon, 2006). In their perspective, Nwanneka and Amaechi, (2012) advanced that the lower the number of students in the classroom, the better the educational quality of the learners involved. It could be deduced that the nature of the subject involved and teachers' teaching strategies and skills are other essential factors in determining number of students to be taught by a teacher. However, if the subject is theoretically based, thirty students could be considered normal and moderate in the class, for a subject which requires both theory and practice, a lower number of ten students may be ideal (Duflo, Dupas and Kremer, 2007). Mahlo (2015) argued that sending a child to boarding school in order to take

advantage of the small class size may not yield intended results. This is because, the class size cannot guarantee better academic performance at boarding and non-boarding schools, which is in contrary to the expectation of parents for sending their children to boarding schools. In term of class size with respect to school location, Owoeye and Yara (2011) reported that students in small class size did not perform better than their counterpart in large class size, in both urban and rural schools.

Jacob, Olawuyi, and Jacob, (2016) acknowledged that large class size undermine the tone of discipline among students during the course of teaching. This is in tandem with submission made by Nyiam, (2012) that over-populated classrooms lead to over stretching of available school facilities and overcrowded examination halls pave way for students to indulge in examination malpractice. In the same vein, Agba, (2010) argued that students' overpopulation would have effect on the tone of the school which may in turn dampens the morale of both teachers and students. Such that, it would encourage an adoption of lecture method of instruction among teachers, less active student involvement in the learning process, reduced frequency of instructor interaction with and feedback to students, reduced depth of student thinking inside the classroom, reduced breadth and depth of lesson objectives, assignments, and related learning strategies used by students outside the classroom, lower levels of academic achievement (learning) and academic performance (grades), reduced overall lesson satisfaction with the learning experience, and lower student ratings (evaluations) of instruction. Blatchford Bassett and Brown (2011) stressed that at both primary and secondary levels smaller classes led to pupils receiving more individual attention from teachers, and having more active interactions with them. While according to these scholars, classroom engagement decreased in larger classes. Ngoboka and Schultz, (2002) corroborated the view that favourable academic performance is noticed for students enrolled in the small class section rather than the large section.

In contrast, from economic point of view, few students per class are uneconomical in nature, as they do not make full use of space, teacher and teaching materials. Such that, by increasing the average class size in school, capital cost could be reduced. This implies that the higher the class size, the lower the cost of education (Nwadiani, 2000).

1.2. Statement of the Problem

In recent time, there has been astronomical rise in class-size due to not only increase in enrolment of students in public secondary schools in Osun State but also as a result of new policy on education known as merger of public secondary schools.This has led to disarticulation of public schools into middle and high schools. This led to the reduction

of the aggregate number of public secondary schools in the state as well as conversion of some of the single sex and boarding schools into mixed and days. With this new policy, Fatima College, Ikire that been a single sex secondary school before became a mixed school in year 2013. Some of the classes in this school has high students per class as against the teacher-student ratio recommended by the National Policy on Education. Also, the incorporation of female students into this school system has created a great challenge in term of their placement into either of the Science, Commercial or Art class and evaluating inter gender academic performance comparison in school subjects across all classes.

In addition, there was a great variance in gender enrolment and number of the students' allotted into each of the stream as shown in the class register and results of the Unified Promotion Examination conducted by Osun State Ministry of Education in July, 2017. Out of over two-hundred grade 11 (Senior Secondary School Two) students taught by the teachers for the purpose of the said examination, one-hundred and eight nine (189) of them sat for this examination. From this figure, forty-four (44) representing 23.3% of the participants were females while one-hundred and forty five (145) amounting to 76.8% were males. In term of the class stream called classification, seventy-three (73) of them were in Science stream which constituting 38.6%, and eight-three (83) of them accounting for 43.9% belonged to Art stream while thirty-three (33) comprising 17.5% were in Commercial class. The general poor academic performance in this examination most especially in Mathematics and English Language which may be partly attributed to factors like gender of the students, class-classification and class-size. However, there is no consensus in the literatures with regards to influence of gender and class-size factors on academic performance while attention has not been so much directed towards assessing the influence of class classification on students' academic performance at secondary school level. Hence, the study is designed to fill the identify gap in the literature.

1.3 Research Questions
Based on this background, the following questions are designed to guide this study;
    i.   What is the influence of class classification on students' academic performance in Mathematics and English Language?
    ii.   What is the impact of class size on students' academic performance in Mathematics and English Language?
    iii.   What is the effect of gender quality of the student on their academic performance in Mathematics and English language?

1.4 Objectives of the Study

The broad objective of the study is to determine the influence of class-classification, class-size, and gender on students' academic performance of senior secondary school. Hence, the specific objectives of the study are;

i.   To examine the influence of class-classification on academic performance of students in Mathematics and English Language

ii. To evaluate the effect of class size on students' academic performance in Mathematics and English Language

iii. To determine the impact of gender quality of the students on academic their performance in Mathematics and English Language

1.5 Research Hypotheses

i. H_o: There is no significant difference in the academic performance of students of in Mathematics and English Language on the basis of class classification.

ii. H_o: There is no significant difference in the academic performance of student in Mathematics and English language on the basis of class size.

iii. H_o: There is no significant difference in the academic performance of students in Mathematics and English Language on the basis of gender.

2. Methodology

2.1 Research Design

The study employed descriptive survey research design which is ex-post-facto in nature. This is premised on the fact that survey research design is generally conceived as one in which a group of people or items is studied by collecting and analysing data from only a few people or items considered to be representative of the entire target group (Nworgu, 2006). The design is considered appropriate because the researcher planned to use the obtained data to describe the situation that exist. It does not involve the manipulation of variables in the study. It is therefore, after the fact study. It neither adds to nor subtracts from the existing fact.

2.2 Population

The population used for the study comprised all grade 11 (Senior Secondary School Two) students in Fatima College that sat for Unified Promotion Examination (UPE) conducted by Osun State Ministry of Education, in May, 2017.

2.3 Sample and Sampling Procedure

The purposeful and stratified sampling techniques were used. However, all one-hundred and eighty nine (189) Grade 11(Senior Secondary School Two) students participated in the Unified Promotion examination was purposefully used. The performance was disaggregated into three strata. The first stratum was on class classification with eighty-three (83), seventy-three (73) and thirty-three (33) belong to Science, Art and Commercial stream respectively. On gender ground, all forty-four (44) female and one-hundred and forty five (145) male students were used. In addition, all seventy-three (73) students that belong to the four classes (two Art and Science classes) that was less than thirty-five were used as small class, while one-hundred and sixteen (116) of the said students belong to a large class size i.e. class size of more than thirty-five (35) as at time of the investigation.

2.4 Data Collection

The study used secondary data obtained from the statutory records of the school. The variables such as class-classification, class-size and gender were used as independent variables while academic performance represented dependent variable. These variables are measured in the study as- class classification (all grade 11 students that belong to each of the following classes: Art, Commercial and Science classes), class-size (class with less than thirty-five students was considered small class while class having more than thirty-five students was used as large class), gender (number of female and male in each of class classification and class-size) and academic performance (proxy by grade 11 students' scores in Mathematics and English Language). This is premised on the fact that both Mathematics and English Language are compulsory subjects for all students irrespective of whether a student belong to an Art, Commercial or Science, large or small class sizes and female or male.

2.5 Data Analysis Technique

The data were analysed using t-test and the hypotheses were tested at 1% and 5% level of significant respectively.

3. Results

Research Hypothesis 1: There is no significant difference in the influence of class-classification on academic performance of students in Mathematics and English Language.

Table 1: T-test result showing the difference in academic performance of students in
Mathematics and English Language between Science and Art Streams

Stream	N	Mathematics		Eng. Language		Mathematics		Eng. Language		
		Mean	SD	Mean	SD	T-Cal	T-tab	TCal	T-tab	DF
Art	73	37.663	5.785	40.602	8.993	0.445	1.645	-1.45	1.645	154
Science	83	37.192	7.209	42.658	8.697					

Table 1 reports the average performance of both Art and Science Grade II students in Mathematics and English Language as 37.663, 37.192, 40.602 and 42.658 respectively. The null hypothesis is not rejected, this is because, the t-calculated value which is 0.445 is less than t-tabulated value or critical value of 1.645 at 5% level of significant. Hence, the study concludes that there is no significant difference between the students' academic performance in Mathematics and English Language across the students in Art and Science streams. The outcome is reported with 95% level of confidence interval.

Table 2: T-test result showing the difference in academic performance of students in
Mathematics and English Language between Science and Commercial Streams

Stream	N	Mathematics		Eng. Language		Mathematics		Eng. Language		
		Mean	SD	Mean	SD	T-Cal	T-tab	T-Cal	T-tab	DF
Science	83	37.192	7.209	42.658	8.697	0.980	1.658	3.280	1.658	114
Comm	33	35.697	7.916	36.818	8.520					

Table 2 shows the mean scores of grade 11 students in Mathematics and English language for both Science and Commercial streams as 37.192, 35.697, 42.658 and 36.818 respectively. It indicates that average scores of students in Science class in English Language are slightly higher than their Commercial students' counterpart. Also, the study reveals t-calculated value of 0.980 for Mathematics and 3.280 for English Language while the t-critical value stands at 1.658 at 5% level of significant. Therefore, the null hypothesis which states that there is no significant difference between students' academic performance in English Language is rejected. While, the null hypothesis which states that there is no significant difference between students' academic performance in Mathematics is upheld. This is premised on the ground that t-tabulated value is greater than t-calculated at 5% level of significant. The results are reported with 95% level of confidence interval.

Table 3: T-test result showing the difference in academic performance of students in Mathematics and English Language between Art and Commercial Streams

Stream		Mathematics		Eng. Language		Mathematics		Eng. Language		
	N	Mean	SD	Mean	SD	T-Cal	T-tab	T-Cal	T-tab	DF
Art	73	37.663	5.785	40.602	8.993	1.438	1.671	2.038	1.671	104
Comm	33	35.697	7.916	36.818	8.520					

Table 3 indicates the mean values of 37.663 and 35.697 respectively in Mathematics. Furthermore, it shows t-calculated value of 1.438 and t-tabulated values of 1.671 at 5% level of significant. Therefore, the null hypothesis which states that there is no significant difference in the effect of class classification on student's academic performance in Mathematics is not rejected. Hence, it is deduced that there is no significant effect of class classification most especially between students in Arts and Commercial streams on their academic performance in Mathematics. Similarly, for English Language, the average scores of the students in Art stream is slightly greater than their counterpart in Commercial stream. But, the t-calculated value stands at 2.038 while t-critical remains at 1.671 at 5% level of confidence which indicates that t-calculated value of 2.038 is more than the t-tabulated value of 1.67 at 5% level of confidence. Hence, the null hypothesis which states that there is no significant difference in the academic performance of students in English Language on the basis of class classification is rejected most especially between Art and Commercial students. The results are reported with 95% level of confidence interval. And this is in favour of the students in Arts stream.

Research Hypothesis 2: There is no significant difference in the academic performance of students in Mathematics and English Language on the basis of class size.

Table 4: T-test result showing influence of class size on academic performance in Mathematics and English Language

Class size		Mathematics		Eng. Language		Mathematics		Eng. Language		
	N	Mean	SD	Mean	SD	T-Cal	T-tab	T-Cal	T-tab	DF
Small	73	36.699	6.763	40.507	9.625	0.607	(1.645)	0.378	(1.645)	187
Large	116	37.293	6.407	41.017	8.623		(2.326)		(2.326)	

Table 4 reveals t- calculated value of the students in small and large class size as 0.607 and 0.378 in Mathematics and English Language respectively while critical values stand at 1.697 and 2.457 at 1% and 5% level of significant which is observed to be greater than t-calculated value. In the light of this, the hypothesis which states that there is no

significant difference in the effect of class size on student's academic performance in English language and Mathematics is not rejected. Hence, the study concluded that there is no significant difference between the academic performance of students in small and large class size in English Language and Mathematics respectively.

Research Hypothesis 3: There is no significant difference in the academic performance of students in Mathematics and English Language on the basis of gender.

Table 5: T-test result showing the effect of gender on academic performance in
Mathematics and English Language

Gender		Mathematics		Eng. Language		Mathematics		Eng. Language		
	N	Mean	SD	Mean	SD	TCal	T-tab	T-Cal	T-tab	DF
Female	44	38.068	4.648	41.182	7.848	1.07	(1.645)	0.545	(1.645)	187
Male	145	36.856	7.032	40.503	9.289		(2.326)		(2.326)	

Table 5 shows the average score of female and male students in Mathematics as 38.068 and 36.856 respectively which means that the mean score of female students is slightly higher than male counterpart in Mathematics. For English Language, the average scores of female and male students stand at 41.182 and 40.503 respectively. In addition, the t-calculated value stands at 1.07 and 0.545 while critical values remain at 1.697 and 2.457 at 1% and 5% level of significant which is observed to be greater than t-calculated value. In the light of this, the hypothesis which states that there is no significant difference in the academic performance of students in Mathematics and English Language on the basis of gender is not rejected. Hence, the study concluded that there is no significant difference between the academic performance of female and male students in Mathematics and English Language.

4. Discussion of findings

The findings of the study revealed no significant relationship between the academic performances of students in Mathematics on the basis of class classification among students in Science and Commercial stream, Art and Commercial stream and Science and Art stream respectively. While significant difference was report between Science and Commercial as well as Art and Commercial in English Language but in favour of Science and Art respectively. The outcome of this study indicated that gender do not have effect on the academic performance of students in both Mathematics and English Language. This supported the research work done by Abubakar, and Adegboyega, (2012) where no significant gender difference in academic achievement of the students

in Mathematics was revealed. It is in contrary to Babatunde and Olanrewaju, (2014) where significant relationship between the class size and secondary school students' scholastic achievement was reported. The findings of this study is not in conformity with recent work done by Ariz and Farah (2017) who reported mixed outcomes in which the performance scores of males were found higher in some subjects while scores of females were higher in some others. Nnamani and Oyibe (2016) that observed higher achievement scores in favour of female students. However, no significant difference was observed in the academic performance of students on the basis of the class size which is in consonance with the study conducted by Mahlo, (2015) who reported no significant difference in class size and academic performance between students in the boarding and non-boarding schools. This is also in tandem with Owoeye and Yara (2011) who found no significant difference in the academic performance of students in small and large classes irrespective of the school location.

5. Conclusion

Based on the empirical findings of the study, it is concluded that class classification have significant effects on academic performance of students' most especially in English language. But, gender and class size have insignificant influence on academic performance of students in Mathematics and English Language.

6. Recommendations

Based on the findings, the following recommendations are made.
1. Teachers should re-visit their classroom instructional practice, this is because, there is a need for them to shift to instructional practice that will give the students of both gender equal opportunities to excel in instructional activities.
2. Teachers should endeavor to guide the students in the selection of the class stream and they should take into cognisance the preference of the learners involved while guiding such a student.
3. Teachers should avoid and desist from unnecessary discrimination of any form most especially on gender and stream ground in the course of teaching or classroom discussion.
4. Teacher should employ variety of teaching methods that would be beneficial to all students irrespective of the size of the class.

References

1. Abubakar R. B. and Adegboyega B. I. (2012) Age and Gender as Determinants of Academic Achievements in College Mathematics. *Asian Journal of Natural & Applied Sciences*, 1(2):121-127.

2. Adeyemi, T. O. (2008) The Influence of Class Size on the Quality of Output in Secondary Schools in Ekiti State, Nigeria. *American-Eurasian Journal of Scientific Research*, 3(1):7-14.

3. Agba, S. U. (2010). Students over-population and its effects on their Academic Performance in Senior Secondary School Certificate Examination in Obudu Local Government Area of Cross River State, Nigeria.

4. Agboola, A. K. (2006). Assessing the awareness and perception of academic staff in using e-learning tools for instructional delivery in a post-secondary institution. A case study. *The public Innovation Journal,* 11(3):51-63.

5. Ahmad, M. R. Pervaiz M. K. and Aleem M. (2015) A Comparative Study of The Factors Affecting The Male And Female Students' Academic Performance In Higher Education (A Case Of Government College University, Lahore). *European Scientific Journal*, 11(7): 429-436.

6. Anagbogu, M. A. (2002). Educating the girl child. *Psychology News*,(3):17-18.

7. Ariz, N. and Farah N. (2017) A Study on Learning Styles, Gender and Academic Performance of Post Graduate Management Students in India. *International Journal of Economics & Management Sciences*, 6(1):1-6.

8. Ashetu, A. A. (2015). Gender Disparity Analysis in Academic Achievement at Higher Education Preparatory School: Case Study of South Wollo, Ethiopia. *Educational Research and Review*, 10 (1): 50-58.

9. Babatunde M. M. and Olanrewaju M. K. (2014) Class Size and School Climate as Correlates of Secondary School Students' Scholastic Achievement in Itesiwaju Local Government Area of Oyo State, Nigeria. *Global Journal of Human-Social Science*, G Linguistics & Education 14(3):15-22.

10. Blatchford, P Bassett, P. & Brown, P. (2011) Examining the effect of class size on classroom engagement and teacher pupil interaction: Differences in relation to pupil prior attainment and primary vs. secondary schools. *Learning and Instruction*, 21: 715-730

11. Duflo, E. and Dupas P. K. (2007) Pear effects of pupil-teacher ratio and teachers incentives.

12. Eze, T. I. Ezenwafor, J. I. and Obi M. N (2015) Effects of Age and Gender on Academic Achievement of Vocational and Technical Education (VTE) Students

of a Nigerian University. *Journal of Emerging Trends in Educational Research and Policy Studies*, 6(1): 96-101.

13. Mahlo, D. (2015) A Comparative Study of Class Size and Academic Achievement of Pupils in Boarding and Non-Boarding Schools. *International Journal of Educational Sciences*, 11(2): 128-136

14. Filgona, J. and Sababa L. K. (2017) Effect of Gender on Senior Secondary School Students' Academic Achievement in Geography in Ganye Educational Zone, Nigeria. *European Journal of Education Studies,* 3(4): 349-410

15. Jacob, O. A. Olawuyi, B. O. and Jacob A. J. (2016) Relationship between class size and discipline of Secondary school students in Yagba West of Kogi State, Nigeria. *Sky Journal of Educational Research*,4 (1):008-013.

16. Miller-Whitehead M. (2003) Compilation of class size findings: Grade level, school and district. Paper presented at the Annual Meeting of the Mid-south Educational Research Association.

17. National Policy on Education 2004 Federal Republic of Nigeria; Abuja NERDC.

18. Ngoboka, P. and Schultz, B. (2002) The Effects of Class Size on Student Academic Performance in a Principles of Microeconomics Course. *Proceedings of the Midwest Business Economics Association*, 198-207.

19. Nnamani, S. C. and Oyibe O. A (2016) Gender and Academic Achievement of Secondary School Students in Social Studies in Abakaliki Urban of Ebonyi State. *British Journal of Education*, 4 (8): 72-83

20. Normore, A. and Ilon, L. (2006) Cost-effective school inputs: Is class size reduction the best educational expenditure for Florida? *Educational Policy,* 20, 429-454.

21. Nwadiani M. (2000) Economic dimensions of educational planning in Nigeria, Benin-city: Monose Amalgamates, 78-82.

22. Nwanneka, N. I. and Amaechi O. N. C (2012) Pupil-Teacher Ratio: Implication for Quality Education in Nigeria Primary Schools. *An International Journal of Arts and Humanities,* 1(1): 257-264.

23. Nworgu, B. G. (2006) Educational research; Basic Issues and Methodology. Wisdom Publisher Limited, State Hospital Road Ring Road. Ibadan.

24. Nyiam, T. A. (2012) School plant maintenance programmes and their implication on students' academic performance in Northern Senatorial District of Cross River State, Nigeria.

25. Oba, F. J. and Lawrence A. A. (2014) Effects of Gender on Students' Attitude to Physics in Secondary Schools in Oyo State, Nigeria. *European Scientific Journal,* 10(7): 399-404.

26. Osim, R. O. Chika, C. U. and Isaac O. U. (2012) Class size pressure: An impediment to teachers' work quality. *Global Advanced Research Journal of Education Research and Review*, 1(5): 095-099.

27. Owoeye, J. S. and Yara, P. O (2011) Class Size and Academic Achievement of Secondary School in Ekiti State, Nigeria. *Asian Social Science,* 7(6): 184-189.

28. Okoye, N. N. (2003) Are Boys better than Girls in Mathematics and English Language in academic performance? *Psychology for everyday living. 2, 21-27*

29. Tessema, M. Reday, K and Malone C (2012) Effect of Gender on College Students' Satisfaction and Achievement: The case of a Midsized Midwestern Public University. *International Journal of Business and Social Science*, 3 (10):1-11

30. Umoh, A. M. (2006) Basic Psychology of human learning. Uyo-Nigeria. MEF (Nig.) Limited.

31. Vocabulary. Com Dictionary 2017. From http://wwww.vocabulary.com/dictionary/c lassroom (Retrieved on 19 September, 2017)

32. Witherspoon, M. Sykes, G. and Bell C. (2016) Leading a Classroom Discussion: Definition, supportive evidence, and measurement of the ETS® National Observational Teaching Examination (NOTE) assessment series (Research Memorandum No. RM-16-09). Princeton, NJ: Educational Testing Service.

33. Wosyanju, M. G. (2005) Assessment of large classes. A paper presented at the 31st annual conference of international association for educational assessment. Abuja, September 4th -9th.

34. Yara P. O. and Ndirangu J. P (2012) Determinants of Female Students' Performance in Primary Schools in Loitokitok District of Rift Valley Province, Kenya. *International Journal of Business and Social Science, 3(12):219-228.*

35. Yusuf T. A. Onifade C. A and Bello O.S (2016) Impact of Class Size on Learning, Behavioural and General Attitudes of Students in Secondary Schools in Abeokuta, Ogun State Nigeria. Journal of Research Initiatives, 2(1).2-16.