

INFLUENCE OF LARGE CLASS SIZE ON STUDENTS ACADEMIC ACHIEVEMENT AND ATTITUDE TOWARDS THE LEARNING OF GEOGRAPHY IN NIGER STATE COLLEGE OF EDUCATION MINNA

ADAMU, SHEKWONUZHINSU JOHN¹; ANIAH, Anthony² & ALABI, T. O.³

^{1,2,3} Department of Science Education,
Federal University of Technology, Minna.

Email: shekwonuzhinsu9@gmail.com

Phone No: +234-703-905-4422; +234-803-619-5385,

Abstract

The study examined the Influence of Large Class Size on Students Academic Achievement and Attitude towards the Learning of Geography in Niger State College of Education Minna. The study used quasi experimental and survey design. A sample of 200 NCE II students were used. Simple random sampling technique (hat and draw method) was used. Two research questions and one hypothesis guided the study. Also two research instruments were use for this study. These are Geography Achievement Test (GAT) and Geography Attitude Questionnaire (GAQ). GAQ has a reliability coefficients of 0.75 while GAT has a reliability coefficient of 0.81. Mean, standard deviation were used to answer the research questions while Independent t-test was used to test the hypothesis. The study revealed that, students' performance was better in small class size than in large class size. Similarly students also agreed that large class size affect negatively in learning of geography. In the light of this, it was recommended among others that More instructional materials should be provided to include public address system so that the students in a large class could be instructed as appropriate.

Introduction

Geography as a school subject is very important and useful to students and everyone who seeks to cope with the ever-emerging realities of our time. This is because the earth which is the focus of geography study is the theater where virtually all human activities are carried out, and it' is only reasonable that man knows about the nature and character of the earth, and consequences of interactions between man and his environment. Abdul (2017) defined Geography as a science of spatial relationships which focuses attention mainly on the interaction between man and his environments. Aman (2011) also views Geography as an inter-disciplinary field of study that influences agriculture, industry, commerce, economics development. Geography potentially assists cross- disciplinary learning and helps student to recognize the connections between geography and other field of study or specialization. Therefore knowledge of Geography is essential for successful living because of its practicable intellectual value (Abidoeye & Ogunniyi, 2012).

However, reports on students' academic achievement in College of Education Minna in Geography have not been encouraging Chief Examiner's reports have highlighted persistent poor achievement of geography students (2015, 2016 & 2017). This poor achievement is attributed to large class size in geography (Sharma 2013), wide coverage of the subject (Ofodu, 2010), insufficient facility (Abidoeye & Ogunniyi, 2012) and inadequate teachers (Balogun, 2006). Therefore, as school population increases class sizes also increase, the performances of students become an issue. There is a close association between student's attitude and their achievement. Once the attitudes of students are known, suitable instructional methods can be devised to meet the interest of the student. Attitude according to Bannit (2016) is a mental set or disposition, readiness to respond on the basis of their achievement, their learned nature and characteristics.

The National Policy on Education (2004 revised in 2013) specified 20 in pre-primary, 30 in primary, 40 in secondary schools and maximum of 50 in tertiary institution especially geography department. These directives appear unrealistic in urban areas as a result of high population. From studies conducted, the size of large classes range from 30-336 and small from 8-45 (Guney, 2014). The bench mark of student in geography department in past 10 years is 50 per class but now the bench mark as of date has shift from 50 to 200 per class, the increase in the number of student's in the class influence academic achievement of student field work (2017). Therefore, large class size of students in tertiary institutions influences the academic achievement of students which in turn affect the development of any nation Cohen and Monnow (2010).

Statement of the Problem

The large class size of students into Geography Department College of Education Minna, for the past ten (10) years has become a matter of concern. The influence of class size on academic achievement has been the focus of both academic and policy debate for some time now. Most previous studies had tend to attribute this problem to factors that are extraneous to the learner, such as poor physical facilities, school environment etc. Various strategies adopted by different governments and agencies tend not to address the problem substantially. There is therefore further need to research into other possible factors or variables underlying students' achievement in geography, since behaviour is a product of environmental and psychosocial variables. It is against this background that the researcher intends to carry out this research work in order to find out the influence of large class size on students academic achievement and attitude towards learning of geography in Niger State College of Education Minna.

Objectives of the Study

The study aimed to achieve the following objectives

- (i) To determine the academic achievement of student in large class and student taught in small class size in the department of geography
- (ii) To determine student attitude towards learning in relation to large class size in the department of geography.

Research Questions

The following research questions were raised to guide the study.

- (i) What is the mean achievement scores of geography student's taught in a large class size and those students taught in a small class size?
- (ii) What is the attitude of student's towards the learning of geography in large class size?

Research Hypotheses

The null hypothesis formulated to guide the study and will be tested at 0.05 alpha level is

H₀: There is no significant difference in the mean scores of student's taught in large class size and those students taught in a small class size.

Methodology

The research adopted both survey and quasi experimental design. The quasi experimental design entails pretest, posttest, non equivalent experimental and control group design. The population of the study was 1,200 students across the three levels that is NCE I NCE II and NCE III. The sample size for the study is 200. This comprises of 200 students for the achievement test and 100 students randomly selected from the same group for the questionnaire. Simple random sampling techniques using hat and draw method was used for the study in selecting the students. Two research instruments were use for this study. These

are Geography Achievement Test (GAT) Geography Attitude Questionnaire (GAQ). The reliability coefficients of 0.75 was obtained for GAQ while GAT has a reliability coefficient of 0.81.

Results

Research Question One: What is the mean achievement scores of geography student's taught in large class size and those students taught in a small class size?

Table 1: Mean, Standard Deviation of Students' in small and large class size in Geography

Variable	N	Mean (\bar{X})	S.D
Small class size	50	28.10	1.84
Large class size	150	13.13	3.65

Table 4.1 above shows the mean and standard deviation of students in large and small class size. A mean value of 28.10 was obtained for students in small class size and a mean value of 13.13 was obtained for students in large class size. The results indicate that students in small class size perform better than students in large class size.

Research Question Two: What is the attitude of student's taught geography in large class size and those taught in small class size?

Table 2: Attitude of students toward the learning of Geography in large class size

S/ N	ITEM	Mean (\bar{X})	S.D	Decision
1	Large class size reduces noise making in the class	1.76	1.07	Disagree
2	large class size allow students to engage in examinations malpractice	2.97	1.44	Agree
3	Large class size enables the students to be punctual in the class	1.40	.87	Disagree
4	Large class size does not enable me to learn very well	3.45	1.21	Agree
5	The number of day spent in class during field work is enough for practical aspect of geography	1.28	.45	Disagree
6	Is enough preparation and logistics (vehicles) ok for you during field work in Geography	1.48	.66	Disagree
7	Will large class size enable me to hear and listen well	1.45	.76	Disagree
8	Will large class size enables lecturer to deliver his/her lecture regularly	1.41	.71	Disagree
9	Large class size enable me to sit comfortably in the lecture hall	1.34	.64	Disagree
10	Large class size in geography does not enable me to have adequate student-teacher interaction in the class	3.16	1.36	Agree
11	Large class size creates conducive learning environment for both teachers and learners in geography department	1.12	.41	Disagree
	Grand Mean (\bar{X})	1.89		Disagree

Decision Mean (\bar{X}) = 2.5

From table 4.4, it could be noted that students agree to item 2, 4 and 10. These items revealed that large class size encourage students to engage in examination malpractice, large class size does not allow students to learn very well and large class size does not allow for adequate teacher to student interaction.

Hypothesis One: There is no significant difference in the mean scores of student's taught in large class size and those students taught in a small class size.

Table 3: Summary of independent t-test Analysis of students' mean score achievement in small and large class size

Variable	N	Mean (\bar{X})	S.D	df	t-value	p-value	Decision
Small class size	50	28.10	1.84	198	27.79*	.000	Significant
Large class size	150	13.13	3.65				

* Significant at P = 0.000

The result from table 4.6 shows t-value = 27.79, df = 198, p = 0.000. Thus, the hypothesis was rejected. This means that, there exists significant difference between the mean score of students in small class size and large class size.

Discussion

Results from this study indicate that, there was significant difference between the performance of students in small and large class size. Students perform better in small class size than in large class size. This finding is in agreement with Abidoyi (2015) who examined the effect of large class size on secondary school student's academic achievement in Geography in Oyo State Nigeria. Also the finding is in agreement with Omwirhiren and Faith (2016) who examine the effect of class size and student attitude on academic performance in geography among Demonstration Secondary School Students of Ahmadu Bello University, Zaria and reported students performance was better in small class size than large class size.

Furthermore, it was revealed from this study that students view large class size to have negative impact on students' academic achievement. They agreed among others that, Large class size in geography does not enable them to have adequate student-teacher interaction in the class and that large class size allow students to engage in examinations malpractice. This finding is supported by Sun, (2015) who opined that large class size issues in school and its influence on students achievement is heart breaking, some of the issues associated with large class size according to Sun (2015) are noise making, examination malpractice and fighting.

Conclusion

The findings suggest that large class size influence the academic achievement of the students which result into the formation of negative attitude on both the students and the lecturers. Similarly, there was a significant difference in academic achievement in Geography between the large class size and the small class size. That is small class size student tend to achieve better than the large class size. The findings from the study concluded that these results apply to only College of Education Minna. The result certainly suggest avenues for further research and it would be desirable to examine these relationships using data from more than one institution.

However, it was found that Attitude, Class size are significant factors influencing academic achievement in geography.

Recommendations

The following recommendations were proffered:

- (i) More instructional materials should be provided to include public address system so that the students in large class could be instructed as appropriate.
- (ii) Geography teachers should direct more attention particularly to female students to make them improve on their academic achievement.
- (iii) Parents as well as Geography teachers should encourage students to develop positive attitude towards Geography. Also, parents should provide equal learning opportunities to their children and should not discourage the girls from studying Geography.
- (iv) The ministry of Education, curriculum developer in conjunction with Geography authors as well as Geography teachers should design Geography textbooks devoid of any gender bias.
- (v) The study on student's attitude, class size and gender should be applied to other disciplines in science so as to compare findings and make recommendations.

References

- Abdul J. N. (2017). Effect of field work on students achievement in environmental Education content in senior secondary school geography (unpublished) master Thesis, University of Nigeria, Nsukka.
- Abidoye, J. A., & Oguniyi, S.O. (2012). Availability and utilization of instructional materials as factors of students Academic performance in Geography in Ondo State Secondary Schools. *Nigeria Journal of Research and Production*, 20(1), 37-44.
- Aman, S. (2011) What are the aims and the objectives of teaching geography? <http://www.preservearticles.com>.
- Balogun, O. (2013). Assessment of female students' performance in selected Science courses *Journal of Gender and Development*, 1(1&2), 61-64.
- Bannit, A. (2016). Health behaviours and academic achievement among college students. *Journal of American College Health*, 49-156.
- Cohen, M. (2010). Education Africans youth for rural development. New York Bernard varileer fund.
- Efe. M. O., & Faith, E. A. (2016) Effect of class size and Students Attitude on academic performance in Geography at Demonstration Secondary School Ahmadu Bello University Zaria, Nigeria. *Journal of research and method in Educaiotn*, 6.
- Guney, Y. (2014). Exogenous and endogenous factors influencing students' achievement in undergraduate accounting modules. *An International Journal*, 18(1), 51-73.
- Ofodu, G. O. (2010). Gender, school location and class level ascorrelatives of reading interest of secondary school students. *Journal of Contemporary Studies*, 119-124.

Sun, Y. (2013). The relationship between teaching comprehensibility and instructional time VS students' performance in rational number. *The Journal of Human Resource and Adult Learning*, 5(2), 99-104.