



Relationship between Class Size and Students` Academic Performance in English Language

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Abstract

The study deals with the relationship between class size and students` academic performance in the English Language. The study's main objective is to determine the correlation between class size and students` English language outcomes. A combination of survey and correlation research designs was used for the study. The population of the study comprised 2003 SS II students in the selected public schools in Maiduguri Metropolis, Borno State, Nigeria. Four hundred students were randomly selected for the study. Structured questionnaires and proforma were used for data collection. The questionnaire was used to collect self-reporting data. Proforma was used to obtain students` terminal examination results in the English Language. The data collected were analyzed using Multiple Regression Analysis. The finding revealed a strong correlation between class size and students` academic performance in the English Language. Therefore, it is recommended that schools should be provided with spacious classes to accommodate the rapidly increasing population of the students.

Keywords: *Class Size, Students` Performance, English Language*

Introduction

Today, researchers worldwide are showing great interest in studying factors affecting academic performance and achievement. Class size is believed to be one-factor affecting teaching and learning in schools, especially in public learning institutions. In Nigeria, the average class size varies from one level of education to another and at the tertiary level from one discipline to another. The National Policy on Education (National Policy on Education, 2004) recommends a class size of 20 for the pre-primary level, and 30 for the primary level and 40 for secondary level. It then follows that anything over the recommended number is abnormal, and if the excess is more than 10, the class can be regarded as large. A classroom is said to be overcrowded if it exceeds the stipulated number in the benchmark. The International Labour Organization (ILO) and the United Nations Education Scientific and Cultural Organization (UNESCO) recommend 1:30; 1:35 teacher/pupil ratio for primary and secondary schools. From the present researchers` perspective, a class in which the teacher cannot give enough individual attention to students due to the class size can be considered large.

There are numerous reasons why smaller group instructions would contribute to better achievement, such as higher trainer touch with parents and different private relationships among

teachers and college students. As an instance, college students may also pay higher interest whilst there are fewer college students within the room. Instructors who use many small institution paintings might also find their instruction more fantastic in smaller classes because fewer college students stay unsupervised even as the small organization meets with the instructor. In these times, instructors should keep on equal practices; however, success might be an upward push in shorter training because the same guidance might be more effective. The number of learners in a class can affect how much is learned in several ways. For instance, it may affect students' interaction. For example, this may result in rowdy behaviour, which affects the kinds of activities the teacher can promote. It affects the amount of time the teacher can focus on individual students and their specific needs rather than on the group. In the small class size, it is easier to focus and give attention to learners based on need. The class size could also affect the teacher's allocation of time and, hence, effectiveness, in other ways, too—for example, how much material can be covered (Ehrenberg, Brewer, Gamoran & Willms, 2001).

Similarly, an overcrowded classroom refers to a large number of students in one classroom. Crowded classrooms are more likely to have inadequate or substandard teaching materials and lighting systems, safety features, ventilation or air conditioning systems, low floors and foundations, sharing of books, and pupils sitting on the floor. There is no enough space and places for teachers and students to move freely in the classroom. Quist (2000) argues that primary schools typically have 35 to 45 pupils in many countries, but there are some schools where the class size may be as much as double that number. Classes of these sizes present problems to even the most experienced teachers. Common issues include the limited amount of time for curriculum activities and longer time for marking. Teachers resort to using direct teaching methods whenever confronted by big class size situations. UNESCO (2006) estimates that 84 per cent of classrooms have less than 40 students to every teacher. Most of the countries that exceed 40:1 are in Sub Saharan Africa and Asia. Sub-Saharan Africa has the highest median Pupil-Teacher Ratio, with the Congo, Ethiopia, and Malawi having around 70:1. South and East Asia also have high PTRs, with Afghanistan and Cambodia exceeding 55:1. In Nigeria, there has been an overlapping report of a large class size of 40:1, 50:1, and at times 100:1. This trend has been dragging the education system down.

The majority of the existing literature on large classes in English language teaching falls into two categories: surveys of teachers' beliefs about large classes, and teaching tips for how to deal with the problems associated with large classes. Whatever rating scale or yardstick is used to determine the size of the class, teachers perceive large class as seriously problematic. Given that many of the problems identified by teachers have the potential to adversely affect student learning. For instance, LoCastro (2001) suggested that the interaction issues in large classes would lead to less effective learning.

Todd (2012) examined the relationship between class size and learning for 984 classes of students ranging in size from 10 to 103 students for four fundamental English courses at a Thai university. The findings show significant negative correlations between class sizes and grades, both for all students on all courses and for those students who studied in very differently sized classes on different courses.



On the contrary, Mukhtar (2019) examined the effects of class size on students' achievement. He used a total of 60 Middle level English language teachers from various private schools and 10 English language lessons and teachers were also observed for the research. A quantitative questionnaire is adopted for the study and an observed sheet was prepared by the researcher for the collection of qualitative data. It is found that large class size does not have a visible impact on student's achievement in Pakistan. It is against this background; this study tends to examine relationship between class size and academic performance of students in English language.

Research Problem

The recommended student-teacher ratio in secondary schools is 1:40. This is to enable the teacher as well as the students to interact efficiently. The rapid growth of population worldwide and insufficient funding of the education sector have necessitated the public and some private institutions to slacken on the appropriate class size. The overcrowded nature of classes nowadays has drastically fallen the standard of education in the country leading to low productivity in academic production. The poor performance of students in English language at secondary schools has been explained as the major cause of decline in the general academic performance not only in English language but also in the other subjects offered. The recurrent failure of students in English language in Senior School Certificate Examination (SSCE) and consequently their failure to meet the entry requirement for the Nigerian universities has attracted attentions of the stakeholders all over the nation. Thus, many factors have been blamed as the major cause for this ugly trend; teachers' pedagogical approach, teachers' attitude and students' attitude and generally the laxity in their personal readings have been mentioned as some of the factors responsible. But few studies attempted to look at the class size and how it may impact learning. Therefore, this paper attempts to examine the relationship between class and students' academic performance in English language.

Purpose of the Study

The objective of the study is to determine the relationship between class-size and students' outcomes in the English Language.

Hypothesis

The following null hypothesis was tested at a 0.05 level of significance:

HO₁: There is no significant correlation between class size and students' outcomes in the English Language.

Scope and Limitation

The study deals with the relationship between class size and students' academic performance in the English Language. The study focused on senior secondary school students' academic performance two (SS-II) in the English Language concerning their class size. The study determined the class size's influence on English Language Terminal Examinations' Results of SS II students in selected public schools. The results of the first and second terms of the 2018/2019 academic sessions were collected. The study was delimited to senior secondary schools in Maiduguri Metropolis, Borno State, Nigeria.

Literature Review

Available studies have proven the correlation between school overpopulation, large class size, and pupils' academic performance. Asiyat (2004) and Nyiam (2012) reported that over-populated classrooms lead to overstretching of available school facilities and overcrowded examination halls pave the way for students to indulge in examination malpractice. Agba (2010) asserted that students' overpopulation harms the tone of the school, affecting both teachers and students. On the contrary, researchers have noted that effective teaching and high academic performance can only be achieved when supported by adequate infrastructural facilities and manageable class size. Also, Dillon, Kokkelenberg and Christy (2002) pointed out from their research that large classes negatively affect some students more than others. According to them, the negative effect of class size on grades differs across different categories of students. In his findings, Adeyemi (2008) revealed that schools with an average class size of 35 and below obtained a better result than schools with more than 35 students in senior secondary schools.

Small classes may benefit students more when instruction relies on discussion, by allowing more students to participate and be recognized, than when lecture and seatwork are the main modes of instruction. According to Nye, Hedges, and Konstantopoulos (2000), while small classes benefit all kinds of students; much research has shown that the benefits may be most excellent for minority students or students attending inner-city schools. For these students, smaller classes can shrink the achievement gap and lead to reduced grade retention, fewer disciplinary actions, less dropping out, and more students taking college entrance exams. Olatunde (2010) found that positive outcomes were found for small classes on such factors as time on task, individualized instruction, well-behaved classes, and teacher satisfaction. They further discovered that the results for academic achievement were mixed at times, small classes were found to have superior outcomes, and at times, the large classes performed better. Glass and Smith (1979) conducted a meta-analysis of over 80 class size studies; a relationship between class size and student achievement emerged. While their research was dated, it shows that historically class size has been linked to student academic achievement.

Furthermore, some studies established direct impact of large class size on students' outcome, discipline and classroom management. Over-crowded classes could have a direct impact on students' learning (Shah & Inamullah, 2012). The affected students' performance and the teachers had to face different problems such as discipline, behavioural problems, poor health, students' poor performance, stress on teachers, and increased drop-out rate of students. Carlson (2000) reported that quality learning was not possible when many students were packed into small classrooms. He visited different schools, but it was evident as a severe problem, particularly in many schools located in Florida, Santiago, and in Dallas' Escuela Hogar. He further reported that 40 plus children were stuffed into classrooms designed for no more than 35 kids. They were seated so near together that they were not able to work or move. Ijaiya (1999) found a weak positive correlation between the opinion of teachers and students regarding crowdedness. Findings showed that over crowdedness diminished the quality and quality of teaching and learning with severe implications for attaining educational goals. It was felt that additional buildings and furniture should give priority to educational planning at all levels.



Woessmann and West (2002) conducted a study spanning 18 countries on the effect of class size on students' achievement. They considered each nation separately. The authors found that in six of 18 countries, including Canada, a minimal relationship between class size and test scores in the middle grades could be ruled out. Also, five school systems could rule out large class size effects, but not necessarily small ones. It was only in Greece and Ireland that smaller classes did appear to show superior student performance. In Canada's case then, these results conform to the descriptive statistics, in that class size has no noticeable impact on students' performance in high school. Ding and Lehrer (2004) measured the differences in students' scores on tests in mathematics, reading, and writing, in small or regular classes in kindergarten. The students were randomly placed in small and large classes. The researchers confirm that students benefitted in all subject areas while attending a smaller class in either kindergarten or grade one.

Still, by the time students finished grades two and three, those benefits had diminished, that is, whether students had been in small or regular classes since kindergarten made no noticeable difference in their performance or standardized tests at the end of grades two and three. Eke (1991) researched large class and students' academic achievement in the English Language and mathematics. The researcher sampled ten secondary schools using a stratified proportionate random sampling technique. WASSCE results from the schools served as an instrument. Chi-square was used for data analysis. The researcher found out that class size does not affect student achievement. Still, variables such as the teacher's quality, economic background of parents, school equipment, access to libraries, school location, supervision by inspectors of education to name but a few do affect students' achievement.

Lewit and Bakel's (2000) survey conducted on overcrowded schools in New York City found that 75 per cent of teachers said that overcrowding affected classroom activities and 70 per cent were of the view that overcrowding affected their instructional techniques. Overcrowding and heavy teacher workloads created stressful working conditions for teachers and led to higher teacher absenteeism. Theunynck (2009) carried out research in 14 countries in Africa and found that many classrooms were overcrowded. On the average, across this primary group of countries, each primary school classroom accommodated 63 students within one shift. The lowest average class sizes were found in Niger (1:38) and Ghana (1:37) while Uganda (1:112) and Malawi (1:86) were in the dreadful condition of overcrowded classrooms. Nakabugo et al. (2007) research conducted in Uganda revealed that teachers provided fewer exercises and practice to reduce the amount of marking when teaching in large classes. There was also limited space to conduct group work that would enhance adequate content coverage.

Vandenberg (2012) examined the relationship between class size and academic achievement on 3,812 third-grade students in 204 classrooms collected from nine rural, economically disadvantaged school districts in Georgia's southeastern region. Initial correlation analyses indicated a positive relationship between class size and academic achievement. Regression results showed that the percentage of gifted students, the rate of economically disadvantaged students, and the class size were significant predictors of reading achievement levels. Khan and Iqbal (2012) opined that the teachers' most severe problems are overcrowded classes. The data were given both quantitative and qualitative treatment. The study's outcome indicated that effective teaching was not possible in crowded classes, and the majority of the teachers were facing instructional, disciplinary, physical, and evaluation problems.

Bakasa (2012) studied the effect of class size on academic achievement at a selected institution of higher learning. The research design for this study was mostly quasi-mixed methods as it focused on survey and phenomenology. The descriptive findings that triangulate the data gathered from the various data collection instruments used in the current study pointed towards a conclusion that class size and school factors such as teacher effectiveness can influence student achievement. Owoye & Yara (2011) examined the influence of class size on students' academic performance in Ekiti state. Data were analyzed using mean and t-test. The result showed that there was no significant difference in the academic achievement of students in small and large classes from urban schools ($t = 1.49$; $p < 0.05$); there is no significant difference between the performance of students from rural large and rural small classes ($t = 0.58$; $p < 0.05$). Zyngier (2014) studied class size and academic results, focusing on children from culturally, linguistically, and economically disenfranchised communities. A comprehensive review of 112 papers from 1979-2014 assessed whether these conclusions about the effect of smaller class sizes still hold. The review draws on a broader range of studies, starting with Australian research, and includes similar education systems such as England, Canada, New Zealand, and non-English speaking countries of Europe. Findings suggest that smaller class sizes in the first four years of school can have an essential and lasting impact on student achievement, especially for children from culturally, linguistically, and economically disenfranchised communities. This is particularly true when smaller classes are combined with appropriate teacher pedagogies suited to reduced student numbers.

Ifeanyichukwu (2009) studied the influence of class size on senior secondary school students' performance in essay writing in the English Language. A quasi-experimental pretest, post-test non-equivalent group design was applied in the study. The research questions were answered using mean and standard deviation, while the null hypotheses were tested at a 0.05 level of significance using analysis of covariance (ANCOVA). There is a significant difference between students taught in large class sizes and those trained in small class sizes favouring students. Gender was not a substantial factor in the achievement of students in essay writing. This is shown by the non-significant influence of gender in the achievement of students in essay writing. There was no significant interaction between class size and gender on the achievement of students in essay writing. Gleason (2000) examined the influence class size on student outcomes in mathematics courses with technology-assisted instruction and assessment. The study focused on how the use of instructional software packages, computer labs with tutoring, and increased electronic student-teacher interaction influences the effects of large class sizes on student achievement and engagement. Using the students' final exam scores as a measure of their knowledge at the end of the course, the study compared the students in the large classes with the students in the medium grades using Mann-Whitney two-sample rank-sum and Kolmogorov-Smirnov tests. Using the Mann-Whitney test, for both the College Algebra and Applied Calculus courses, there was no significant difference between the two distributions, and so the null hypothesis was not rejected. Anashie, Ebuta & Adie (2013) examined the influence of students' population pressure and class size on public secondary school students' academic performance in Cross River State. The expofacta research design was adopted for the study. A sample of 150 teachers and 450 students were selected through a stratified random sampling technique. Findings of the study revealed that students' population pressure and large class size negatively affect teaching/learning and make it difficult for teachers to administer and mark tests/assignments.



Methodology

The combination of survey and correlation research designs was employed—the population of the study population comprised 2003 SS II students in the selected public secondary schools in Maiduguri Metropolis, Borno State, Nigeria. Four hundred students were randomly chosen to be the target group. Structured questionnaires and proforma were used for data collection. The questionnaire was administered to the respondents in their respective schools to collect their self-report first-hand data on their demographic and school variables. The Proforma was used to collect students' terminal results of the English Language. The first and second terms of the 2018/2019 academic sessions were recorded on the proforma. The data collected were analyzed using descriptive statistics of Mean and Standard Deviation and Multiple Regression Analysis. The null hypothesis was tested at a 0.05 level of significance using descriptive statistics (Mean and Standard Deviation) and Multiple Regression.

Results

H₀₁: There is no Relationship between Class Size and Students' Academic Performance in English Language

Table 1: Multiple Regression Analysis of Class Size and Academic Outcomes

Model	R	R Square	Adjusted R Square	Std. error of the Estimate
1	.124 ^a	.015	.010	8.120

Table 1 presents multiple regression on the impact of class size on students' academic performance in Senior Secondary School. The results indicated that 10% of the students' academic performance variance is predicted and determined by the number of children in the class size. This means that small or big size class has little impact on the academic performance of students. Thus, the null hypothesis was rejected.

Discussions

The study's findings indicated that class size has no significant impact on students' academic performance. The results contradicted Asiyat (2004) and Nyiam (2012) who reported that over-populated classrooms lead to overstretching of available school facilities and overcrowded examination halls pave the way for students to indulge in examination malpractice. In his findings, Adeyemi (2008) revealed that schools with an average class size of 35 and below obtained a better result than schools with more than 35 students in senior secondary schools. Chingo and Grover (2011) found out that positive outcomes were found for small classes on such factors as time on task, individualized instruction, well-behaved classes, and teacher satisfaction. Glass and Smith (1979) also found that class size has been linked to student academic achievement. Shah and Inamullah (2012) found from their studies that over-crowded classes could have a direct impact on students' learning. Carlson (2000) reported that quality learning was not possible when many students were packed into small classrooms. Anashie, Ebuta & Adie (2013) reported that students' population pressure and large class size negatively affect teaching/learning and make it difficult for teachers to administer and mark tests/assignments.

Conclusion and Recommendations

Based on the study's findings, it was concluded that class size positively impacts students' academic performance. This might be because expert teachers employ an eclectic teaching style that suits every given class setting. When class is large and crowded, diverse teachers adopt lecture methods or any other method suitable for such classes to attain the need for such caliber of class Size: Based on the study's findings, it was recommended that school government should provide adequate, spacious classes with adequate equipment in order to meet the needs of the learners and their aspiration.

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