CLASS SIZE AS CORRELATE WITH THE LEARNING OUTCOMES OF STUDENTS IN ANAMBRA STATE

Dr S.O Okafor

Abstract

This study examined class size as correlate with student learning outcomes in Anambra State. Two research objectives guided the study, and two hypotheses were tested at the 0.05 level of significance. A descriptive research design was adopted for this study. The study area was public junior secondary schools in Anambra State. The population of the study comprised 6,365, while the sample of this study comprised 509 respondents. The instrument for data collection was three questionnaires structured by the researcher after an extensive literature review. The questionnaire was distributed to the respondents, and 509 copies were completed and returned for analysis. The mean, standard deviation, paired sample, and independent t-test were used for data analysis. The following findings were revealed: Large class size has no correlation with students' learning outcomes in Anambra State; Small class size has a correlation with students' learning outcomes in Anambra State. The study concluded that class size is a significant correlate of the learning outcomes of students in Anambra State. Based on the findings, it was recommended that the government should regularly recruit and train teachers to reduce student-teacher ratios, especially in high-enrollment subjects like mathematics and sciences. More classrooms need to be built, particularly in urban areas where schools are overpopulated. The use of modular classrooms can be explored as a short-term solution. Enforcement of a policy that sets a maximum class size per level can help maintain quality. The head teachers should be held accountable for adhering to this policy. Teachers should be trained in differentiated instruction and classroom management strategies for both large and small classes.

INTRODUCTION

1.1 Background of the Study

Education remains the keystone of nationwide development, particularly in emerging economies such as Nigeria. Among the various variables that control the quality of education, class size continues to receive significant consideration from researchers, educators, and policymakers (Okafor Obumse& Okudo, 2025). Class size refers to the number of students assigned to a teacher or classroom. In recent years, there has been

Department of Educational Foundation, Chukwuemeka Odumegwu Ojukwu University, Igbariam.

E-mail: So.okafor@coou.edu.ng

Orcid Number: 0009-0001-4027-0799

growing concern over increasing class sizes in Nigeria's public schools, including those in Anambra State, and their effect on the learning outcomes of students, Anambra State, known for its relatively high literacy rates and strong emphasis on education, provides an ideal setting for evaluating how class size correlates with academic performance and other learning outcomes Okafor, (2024).

The relationship between class size and academic performance has been perplexing for educators. Studies have found that the physical environment, ethnicity, socioeconomics, overcrowding, and teaching methods affect student achievement (Molnar, 2010). Other factors affecting student achievement are school population and class size (Gentry, 2016; Swift, 2012; Krueger and White Moore, 2017). The issue of students' poor academic performance in Nigeria has been of great concern to all and sundry. The problem is so great that it adds to the widely acclaimed, fallen standard of education in the state of Anambra and Nigeria at large. To better understand the skill levels of students, evaluating factors affecting their performance might be necessary (Driscoll, Halcoussis and Svomy, 2018).

Class size is an important factor with respect to students' academic performance. There is a consensus among researchers and educational scholars that student achievement decreases as class size increases. The effect of class size on cognitive achievement has been debated and researched for many years, but the results have been inconclusive (Adeyemi, 2018). Earthman (2012) revealed that comfortable classroom temperature and smaller classes enhance teachers' effectiveness and provide opportunities for students to receive individual attention, ask more questions, participate fully in discussion, reduce discipline problems, and perform better than students in schools with larger classes(Okafor, 2024).

A gap exists in the quality of students in crowded classrooms, using inadequate and absolute equipment, and disillusioned teachers. These combined deficiencies may have affected the student's academic performance (Fafunwa, 2010). Large class sizes are not conducive for serious academic work (Adeyela, 2000). Similarly, an alarming class size of 100 or more students in secondary schools leaves teachers overworked and unable to exercise patience and a positive attitude (Egede, 2015). They are also reluctant to offer extra time to build and help students with intellectual disabilities.

1.2 Statement of Problems

According to Doyle (2014), the focus in modern-day education is on the needs, interests, and comfort of students. Thus, class size management allows students to learn effectively without disturbing one another (Garret, 2018). However, in Nigeria, class size is becoming increasingly unmanageable, putting teachers in an impossible position of giving individual students the required attention. In most of Nigeria's secondary schools today, the teacher–student ratio has gone far beyond the stipulation of the national education policy. Students stay more than 50 in each class, and the seating arrangement is altered, thereby making teaching and learning difficult.

One of the biggest issues facing schools and teachers today is overcrowding, as a large crowd size makes teaching frustrating, overwhelming, and stressful. Large class sizes present several challenges for teachers and students, affecting academic performance, classroom management, and the overall learning environment. These issues include reduced individual attention for students, difficulty in providing effective feedback, increased disciplinary problems, and potential negative effects on engagement and motivation

1.3 Study Objectives

This study aims to examine class size as a correlate of students' learning outcomes in Anambra State. The specific objectives include the following:

1.   To examine the effect of large class size on the learning outcomes of students in Anambra State.

2.   To measure the degree of small class size as a correlate of students' learning outcomes in the state of Anambra.

REVIEW OF THE LITRATURE

2.1 Conceptual Review

2.1.1Class size

Class size refers to the number of students faced by a teacher during a given course or teaching–learning situation. Class size is the average enrollment at the beginning and end of the course or learning process. According to Murphy (1998), a small class size contains 13-17 students while large class size contains 22-25 students. Class size refers to educational tools that can be used to describe a school's average number of students per class. In emphasizing the importance of class size to the learning teaching process, the All Nigerian Conference of Principals of Secondary Schools (ANCOPSS) recommended a maximum of forty students per class for efficient and effective teaching (Oguntoye, 2011). Class size, as defined by Adeyemi (2018), is an educational tool that can be described as the average number of students per class ina school, while Hoffman (2010) described it as the number of students per teacher in a class. Ogbu (2019) described it as a tool that can be used to measure education system performance.

2.1.2 Learning Outcomes

Learning outcomes are statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a course or program. In other words, learning outcomes identify what the learner will know and be able to do by the end of a course or program (Okafor, 2025).Learning outcomes are specific and clear statements of what students are expected to learn and demonstrate upon completion of their course of study (Okafor 2020).They are typically expressed in terms of knowledge, skills, and attitudes to be acquired to satisfy the educational need for which the course has been developed. Learning outcomes describe what learners should know, be able to do, and value as a result of integrating knowledge, skills, and attitudes learned throughout the course. They are stated in measurable terms (Fink, 2013).

2.2 The theoretical framework

The theoretical framework of this study is anchored on NAT. David McClelland propounded this theory in 1961. The theory posits that individual specific needs are acquired over time and shaped by one's life experiences. This is a theory of human motivation that is based on the classification of human needs. He stressed that certain social needs are learned and acquired as the individual interacts with his environment. In other words, David McClelland believed that many needs are acquired from culture, and some may be learned through training. He identified three aspects of need: the need for achievement (nAch), affiliation (nAff), and power (npow). He reasoned that a person's motivation and effectiveness in certain areas are influenced by these needs. McClelland (1961) pointed out that people with high need for achievement have the following characteristics:

i. They want to take personal responsibility for solving problems. They prefer to work on a problem rather than leave the outcome to chance or others.

ii. They tend to take moderate risk rather than high or low risk, set moderate, realistic, and attainable achievement goals, and are inclined to take calculated risk.

iii. They desire regular and concrete feedback on their performance. Achievers need regular feedback to monitor the progress of their achievements. They prefer to work alone or with other achievers.

McClelland's need for achievement also postulated that the tendency to approach an achievement goal is a product of the need for achievement or the motive for success, i.e., the probability of success and the incentive accorded to success. The implication of this theory is that teachers can encourage students to meet their growth needs by enhancing the learning situation's attractiveness. In the light of these, when the environment where the child is learning (in this study, classroom, laboratory, and school location) is made attractive, effective learning is likely to occur.

2.3 Empirical Review

Obunge (2025) investigated the influence of large class size on the academic performance of science students in public senior secondary schools in the Rivers State, Obio/Akpor local government area. A descriptive survey design was adopted. The multistage sampling technique was employed in this study. The study was guided by two research questions. The study's target population was all science students and all science teachers in Obio/Akpor public senior secondary schools. One hundred and Eight (108) SS2 science students and twelve (12) science teachers from 4 schools in the study area formed the sample size of the study. The instrument usedin the study was a questionnaire titled "Influence of large class size in learning of science" (ILCSLS). The instrument was content and face validated by science education and research methods experts. The reliability of the instrument was obtained using the Pearson product moment correlation formula, which gave a coefficient of 0.82. The mean was the statistical tool used to analyze the data. The study found that (i) large class size adversely influences the academic performance of science students in public senior secondary schools, (ii) free education, few schools serving big communities, urbanization, lack of infrastructure, inadequate number of teachers, and inadequate implementation of government policies are the main causes of large class size in public senior secondary schools in the Obio-Akpor local government area.

Okokon et al. (2025) determined the influence of classroom structure and class size on the academic achievement of secondary school students in the Calabar Education Zone of Cross River State, Nigeria. Two research questions were raised from which two null hypotheses were developed. The study adopted an ex-post-facto design. The study population consisted of 3,559 SS 2 physics students in the Calabar Education Zone of Cross River State. The sample consisted of 500 physics students drawn from seven secondary schools using a multipurpose sampling technique. The classroom structure and class size questionnaire (CSSQ) and physics achievement test (PAT) were used for data collection. Data analysis was performed using the independent t-test and one-way analysis of variance. All hypotheses were tested at the 0.05 level of significance. There was a significant difference in academic achievement in physics between students in small class size and large class size ($p = 0.000$, $p<.05$), hence class size significantly influenced students' academic achievement in physics. There was a significant difference in academic achievement in physics between students in terms of classroom seating arrangements (column- row, u-shape, and amphitheater) ($p = 0.000$, $p<.05$), therefore classroom Structure (seating arrangements) significantly influenced students' academic achievement in physics. The major implication of this study is that students' physics achievement can be improved by improving the physical classroom structure and class size. Based on the findings, it was recommended that the government should inject more funds into the school system for the construction of more school buildings.

Dauda and Msheliza (2025) examined the impact of class size on the effective teaching and learning of English in upper-basic schools in the Jalingo education zone. Taraba, Nigeria The study was guided by two objectives, two research questions, and two hypotheses developed and tested at the 0.05 level of significance. The study adopted a descriptive survey design. The study was conducted in the Jalingo Education Zone of Taraba State.

The study population consisted of 151 English teachers in public secondary schools inJalingo Education Zone, Taraba State. The sample consists of 108 teachers determined by Krejcie and Morgan's (1970) table for sample determination. Sampling was performed using simple random sampling. The instrument for data collection titled "Teaching and Learning of English Language Questionnaire (TLELQ)" consists of 20 items on a four-point scale of SA = 4, A = 3, D = 4, and D = 1.Cronbach's alpha was used to test internal consistency to test for reliability, yielding a coefficient of 0.87. Data were analyzed using both descriptive and inferential statistics. The research questions were answered using the mean and standard deviation, and the hypotheses were tested using the chi-square test. The study found that there is significant impact of class size on teacher- students 'interaction during English language lessons. It was concluded that class size influences effective English language teaching and learning. The study recommended that workshops and seminars should be regularly organized for teachers to enable them to share their experiences and strategies in teaching large classes and adopt effective teaching and classroom management techniques, especially for large classes.

Umar et al. (2023) investigated the effects of class size on students' academic performance in an introduction to computer science (CMP111) course at the Kebbi State Polytechnic in Dakin-Gari, Nigeria. This study employed a quasi-experimental research approach to answer the research question (RQ) using experimental and control groups. The experimental group (small class size)and control group (large class size) students of National Diploma I (ND I) enrolled in an introduction to computer science course in the Department of Computer Science and Science Laboratory Technology at Kebbi-State Polytechnic Dakin-gari, School of Applied Sciences. The study population comprised 50 students who participated as the experimental group (small class size) and 150 as the control group (larger class size). Therefore, 200 students participated in the study. Data were collected using 20-item essay test questions with a reliability coefficient of 0.76 and analyzed with SPSS-V21 using an independent sample t-test. The investigation was guided by one (1) research question and one (1) null research hypotheses (Ho) at the significance alpha level of 0.05. The study revealed that class size had an effect on the students' academic performance, with students in small class sizes exhibiting higher performance than their peers in large class sizes. Therefore, this study concluded that classroom size significantly influences the academic performance of students in the course. The relationship between classroom size and academic performance was inversely related. Students in large classrooms performed poorly, whereas students in small classrooms performed better academically. Small class sizes are needed to improve the interaction between lecturers and students to ensure a more meaningful academic performance among the students. Based on this finding, the study recommendedthat the management of the colleges studied pay attention to the class sizes to ensure good academic performance.

Ashiru (2021) investigated the effect of a large class size on the teaching/learning of summary writing in senor secondary schools, especially in the Ijebu ode local government area of the state of Nigeria. The large class size places a major barrier to the effective teaching and learning of summary writing as a core subject in senior secondary schools. The study also determined the effect of school location and gender on the student's summary writing performance. Three research questions and three hypotheses were used to guide the studies. The instrument used for data collection was a set of comprehension and summary passages, and face validation of the instrument was done by three experts in language education and measurement and evaluation from the selected secondary school in Ijebu ode local government area ogun state. A split-half method for single administration of instruments was used, and the test result was analyzed using Crombach Alpha to measure the test's consistency and reliability. The sample for the test consisted of 400 senior secondary school students

drawn from the selected schools in Ijebu ode, the study's focus area. A total of 120 students were drawn from urban school locations and 200 students from rural school locations. The major findings of this study were that the students who were taught summary writing in a small class setting performed better than those who were taught in a large class setting. Location was also significant factor. The findings revealed that students taught summary writing in urban school locations had a better performance than those taught in rural school locations. Gender also played a major role, in that the female students scored higher in summary writing than their male counterparts.

RESEARCH METHOD

3.1 Research Design

The study adopted a descriptive research design. According to Nworgu (2015), descriptive research is a method used to determine the characteristics of a population or a particular phenomenon. The rationale for adopting this design is to examine class size as a correlate of students' learning outcomes in Anambra State. Descriptive research can identify patterns in the characteristics of a group to establish a relationship.

3.2 Study population

The study population consisted of 6195 teachers in 267 public secondary schools in Anambra State. Sources: PPSSC, Awka, 2025.

3.3 Sample preparation and sampling technique

The sample of this study comprised 509 teachers as respondents.

3.4   Method of data collection

The instrument was administered through the direct delivery method. Using this method, 509 copies of the questionnaire were administered by the researcher with the help of three research assistants who were briefed on the modalities for administering and retrieving copies of the questionnaire. The on-the-spot delivery method was adopted. A period of 3 weeks was used for instrument administration and retrieval.

3.5 Data Analysis Methods

To ensure the accuracy of the results, all computations were performed using Statistical Package for Social Sciences (SPSS) version 26. The data collected were analyzed using mean scores and standard deviation to answer the two research questions. Paired-samples t-test was used to test hypotheses 1 and 2 at the 0.05 level of significance.

RESULTS AND DISCUSSION

Introduction

Research Question 1: To what extent does large class size correlate with students' learning outcomes in Anambra State?

Table 1: Mean rating on the extent to which large class size correlates with students' learning outcomes in Anambra State.

	N	Mean	Grand Mean	SD	Decision
Large Class Size	509	20.5	2.4	0.8	Low extent

The analysis in Table 1 shows that the mean ratings on the large class size correlate with students' learning outcomes in Anambra State. With 509 respondents, the mean score was 20.5, and the grand mean was 2.4.

Furthermore, the standard deviation of 0.80 implies that responses were relatively consistent, indicating that most teachers share similar views. The decision of "Low Extent" confirms that a significant portion of the teachers' attitude toward the large class size in secondary schools in Anambra State is to a Low extent

Research Question Two: To what extent does small class size correlate with student learning outcomes in Anambra State?

Table 2: **Mean rating on the** extent to which small class size correlates with students' learning outcomes in Anambra State?

N Mean Grand Mean ()SD Decision
Small Class509 20.3 7.1 0.5 Low extent
Size

Table 2 shows the mean ratings on the extent to which small class size correlates with students' learning outcomes in Anambra State. The mean score of 20.3 and a grand mean of 7.1 indicated that the teacher's attitude generally showed a high level of correlation with students' learning outcomes in Anambra State.

Furthermore, the standard deviation of 0.50 implies that responses were relatively consistent, indicating that most teachers share similar views. The decision of "high Extent" confirms that a significant portion of small class size correlates with students' learning outcomes in Anambra Stateto a high extent.

Test of the Hypotheses

Hypothesis 1: Large class size has no correlation with students' learning outcomes in Anambra State.

Table 5: Paired sample correlation on the large class size has no correlation on students' learning outcomes in Anambra State.

Variables	N	Mean	Std. Dev.	Df	Sig. (2-tailed)
LCS–SLO	509	20.5	0.8	508	0.80

Table 5 shows the results of the paired sample t-test on the significant correlation between large class size and student's learning outcomes in Anambra State.

The result showed that *a P*-value of 0.80 is greater than the 0.05 level of significance, which resulted in the decision to reject the alternative hypothesis that large class size correlates with students' learning outcomes in Anambra State. Therefore, the study concluded that large class size has no correlation with students' learning outcomes in Anambra State.

Hypothesis Two: Small class size is not correlated with students' learning outcomes in Anambra State.

Table 6: Paired samples t-test on the significant correlation between small class size and student's learning outcomes in Anambra State.

Variables	N	Mean	Std. Dev.	Df	Sig. (2-tailed)
SCS–SLO	509	20.3	0.5	508	0.00

Table 6 shows the results of the paired sample t-test on the significant correlation betweens mall class size and student's learning outcomes in Anambra State. The result showed that *a P*-value of 0.00 is less than the 0.05 level of significance, which resulted in the decision to reject the null hypothesis that small class size has no

correlation with student learning outcomes in Anambra State. Therefore, the study concluded that small class size correlates with students' learning outcomes in Anambra State

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Class size is a critical factor in shaping the learning experiences and outcomes of students in Anambra State. Although smaller class sizes tend to correlate with better academic achievement, especially in foundational subjects, it is not a standalone solution. Holistic educational reform covering teacher training, resource provision, infrastructure development, and policy implementation is essential for the sustainable improvement of learning outcomes. As Anambra State continues to position itself as a leader in education in Nigeria, addressing the challenge of class size should remain a top priority for stakeholders at all levels.

Class size has long been recognized as a fundamental factor in determining educational delivery quality and effectiveness, particularly in developing regions such as Anambra State, Nigeria. As this study has explored, class size significantly influences various teaching and learning process dimensions. The final analysis confirms that class size is indeed a critical correlate of students' learning outcomes in the state, affecting not only academic performance but also engagement, cognitive development, and overall educational experience. In Anambra State, as in many other parts of Nigeria, the challenge of large class sizes remains a persistent problem. Overpopulated classrooms are prevalent, particularly in urban and peri-urban public schools. Population growth, rural-to-urban migration, and insufficient expansion of educational infrastructure to accommodate growing enrollment often result in these conditions. This strain places immense pressure on the educational system, with teachers often overwhelmed by the sheer number of students they must teach and manage daily. In such scenarios, the teaching quality and individual student attention are significantly compromised.

5.2 Recommendations

The following recommendations are made:

1. Recruitment of More Qualified Teachers: The government should regularly recruit and train teachers to reduce student-teacher ratios, especially in high-enrollment subjects like mathematics and sciences.

2. Infrastructure Expansion: More classrooms need to be built, particularly in overpopulated urban areas. The use of modular classrooms as a short-term solution can be explored.

3. Policy on Maximum Class Size: Enforcement of a policy that sets a maximum class size per level can help maintain quality. The head teachers should be held accountable for adhering to this policy.

4. Teacher Training and Support: Teachers should be trained in differentiated instruction and classroom management strategies for both large and small classes.

5. Monitoring and Evaluation: Regular evaluation of teaching and learning processes through school inspections, student assessments, and teacher performance reviews will ensure that learning outcomes improve regardless of class size.

References

Adeyela, J. (2000). Teaching science in large classes at the junior secondary school level Implications for learning outcomes. Unpublished Master's Ed Thesis University of Ibadan.

Adeyemi, T. O. (2018). 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.

Ashiru, R. T. (2021). The effect of class size in effective teaching and learning of social studies in junior secondary school (a case study of selected school in Ijebu Ode Local Government Area Ogun State). Ogun State: Ogun State. Department of Social Studies, School of Arts and Social Sciences, Tai Solarin College of Education, Omu Ijebu, Ogun State, Nigeria.

Aturupane, H., Glewwe, P. and Wisniewski, S. (2013). Impact of school quality, socioeconomic factors, and child health on students'academic performance: evidence from Sri Lankan primary schools Education Economics. 21(1): 2-37.

Dauda L. & Msheliza, I. A. (2025). Impact of class size on effective teaching and learning of English language in upper basic schools in Jalingo education zone, Taraba State Nigeria. *International Journal of Innovative Language, Literature & Art Studies 13(2):9-18*doi:10.5281/zenodo.15651339.

Doyle, W. (2014). Classroom Organization and Management in M. C. Wittrock(Ed.). Handbook of research on teaching, 3rd ed. New York: Macmillan.

Driscoll, J.D., Halcoussis, M. P., &Svomy, M. A. (2018). The why's of a small class size: Students behavior in small classes. Journal of Educational Psychology, 97(2): 214- 223.

Earthworm, F. (2012). Class size and academic success among adolescent Nigerians. Ile-Ife: Obafemi Awolowo University Press Ltd.

Egede, R. (2015). Class size, class composition, and student achievement distribution Education Economics, 22(2): 141-165.

Fafunwa, T. (2010). Revamping Public Secondary Education This paper presents the need for capacity building of school managers and teachers in Nigeria.

Garret, D. J. (2018). Essentials of Classroom Management London: Cambride University Press.

Gentry, M. (2016). Class size and student outcomes: implications for research and policy Journal of Policy Analysis and Management 32: 411-438.

Hoffman, G. L. (2010). "Pupil-teacher ratios and academic performance: An experimental analysis." Unpublished Ph.D. Thesis, University of Kansas, USA. Dissertation Abstracts on CD Rom Order No. AAC 8102015.

Kruger, D. K., &Whiteman, F. (2017). The Impact of School Environment and Peer Influences on Students' Academic Performance in Vihiga County, Kenya. Journal of Educational Psychology, 59, 69–79. International Journal of Humanities and Social Science, 4(5): 240-251

McClelland, D. (1961). The achieving society. Printon: Van Nostrand.

Molnar, M. A. (2010). The influence of peer groups on academic performance of adolescent students in secondary schools in Tanzania. University of Bagamoyo, Tanzania.

Murphy, D. Rosenberg, B. (1998). Recent research shows the major benefits of a small class size. American Federation of Teachers, 3, 1-3.

Obunge, J. I. (2025). The influence of large class size on academic performance of science students in public senior secondary schools in Obio-Akpor local government area, Rivers State. Journal of Educational Psychology, 58(1), pp. 57-76.*International Journal of Research Publication and Reviews, vol. 6, no. 3, pp. 6892-6896.*

Ogbu, O. O. (2019). Effects of explicit and generative instructional strategies on senior secondary school students' learning outcomes in summary writing in Ibadan metropolis. University of Ibadan, Ibadan, Nigeria.

Oguntoye, A. L. (2011). Student-teacher relationship and academic achievement in Cross River State, Nigeria. Journal of Educational Psychology. Academic Journal of Current Research. 8(9), 374-386.

Okafor, O. S. (2020). Interest as a predictor of the academic achievement of secondary school students in physics *British Journal of Education, Learning and Development Psychology* ISSN: 2682-6704 Volume 3, Issue 3, 2020 (pp. 1-9).

Okafor S. O. Obumse, N. A. &Okudo, O. C. (2025). Influence of artificial intelligence and digital literacy on academic performance of students in Anambra State *Online Journal of Arts, Management, and Social Sciences* 7 (1) 18-30.

Okafor, O. S. (2024). Psychological distress as a predictor of quality of life among Anambra State undergraduates in public universities *International Journal of Innovative Social Sciences & Humanities Research* 12(3):196-203. https://doi.org/10.1016/j.ijshr.2012.09.010.

Okafor, O. S. (2024). Self-Esteem as predictor of quality of life among undergraduates in public universities in Anambra State. Journal of Public Health. *International Journal of Research in Education and Sustainable Development*. 4(8), 52-61. DOI: 10.5281/zenodo.14033515 31/08/2024.

Okafor, S.O (2025) Bullying as predictor of students' academic achievement in public secondary schools in Onitsha north LGA. *Journal of Educational Research and Development*, 4 (1)160-166

Okokon, E., Allahoki, N. D., Eyo, B. B., & Augustine, O. (2025). Classroom structure and class size on physics students' academic achievement in Calabar education zone of Cross River State, Nigeria. *International Journal of Education, Learning and Development, 13(2), 1-14.*

Swift, D. (2012). Adolescence: peer groups. Retrieved fromwww.ianr.unl.edu/pubs/family/nf211.htm.

Umar, A., Gambo, I. D., Mukhtar, S., and Dakin-Gari, A. U. &Dakin-Gari, S. M. (2023). The effects of class size on students' academic performance in an introduction to computer science (CMP 111) course, at Kebbi-state polytechnic Dakin-Gari, Nigeria. *International Advanced Research Journal in Science, Engineering and Technology, 10(4), 1-15*DOI: 10.17148/IARJSET.2023.10406.