

**RELATIONSHIP EFFECTS OF CLASS SIZE ON ACADEMIC PERFORMANCE  
OF PUBLIC SENIOR SECONDARY SCHOOL STUDENTS IN OVIA NORTH-  
EAST LOCAL GOVERNMENT AREA OF EDO STATE**

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**FEBRUARY 2025**

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**A RESEARCH PROJECT WRITTEN IN THE DEPARTMENT OF  
EDUCATIONAL MANAGEMENT, FACULTY OF EDUCATION, UNIVERSITY  
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AWARD OF THE DEGREE OF BACHELOR OF ARTS (Ed.) IN POLITICAL  
SCIENCE.**

**FEBRUARY 2025**

## CERTIFICATION

We, the undersigned, certify that this research project was carried out by **Daniel ADUMAZA** with the matriculation number **EDU2005654**. Being a research work submitted to the Department of Educational Management in partial fulfilment of the requirement for the award of Bachelor Degree of Science (B. Sc.) (Ed.) in Political Science, University of Benin. Benin City.

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## **DEDICATION**

This project is dedicated to God Almighty for making this journey a success, and also to Adumaza Moses, Osamede Greater Imuetinyan, and my parents for their love and support.

## **ACKNOWLEDGEMENTS**

Words are insufficient to express my heartfelt gratitude to God Almighty for making this journey a success, despite the dark tunnels. Special appreciation is extended to the amazing project supervisor, Rev. Sister Ekejiuba, for her guidance, which played a crucial role in the success of this endeavor. May God continuously bless her. Sincere thanks are also given to Dr. Nkechi Obiweluzor (Project Coordinator), Prof. W.O. Iguodala (Head of Department), and all the lecturers from the Faculty of Education.

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## **ABSTRACT**

*The study investigated the relationship effects between class size and students' academic performance in Ovia North-East Local Government Area of Edo State. To achieve the purpose of the study, four (4) research questions were raised to guide the study. The design adopted for this study is the descriptive survey method.*

*The population for the study comprised the 213 teachers in the 15 public secondary schools in Ovia North-East Local Government Area of Edo State. A total 50 teachers from six public secondary senior secondary schools in the LGA. A structured questionnaire was used to collect data from respondents. The research instrument was validated by lecturer of the Department of Educational Management. Data collected from the survey was statistically analyzed. After analysis, results were displayed on tables showing frequencies and percentages of responses, including the decision made.*

*Based on the findings, there is large class size in the public senior secondary schools in Ovia North East of Edo State, large class size inhibits the level of students' academic performance, large class sizes not only affect students in negative ways but the teachers also, and there is a significant relationship between class size and secondary school students' academic performance. It was recommended that increased funding for secondary school education in Nigeria should be a top priority for policymakers in the LGA, inspectors, and school principals should focus more on the number of students in each class, government should construct more classrooms in schools with large student populations, and the authorized teacher-to-school ratio of 1:40 should be appropriately applied when allocating teachers to schools, etc.*

## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

Academic performance in secondary schools across the nation is gradually taking a descent. This academic challenge has been an age-long worry of students, teachers, parents, governments, school administrators, and other stakeholders of education. The concern to tackle this academic decline propelled the Federal Ministry of Education to hold Examination Summits in 2010 and 2021. This is to avoid the failure of education negatively affecting the economy of the country, as students are seen as important resources of the nation. Putting the academic decline of students' academic performance into context, the West African Senior Secondary Certificate Examination (WASSCE) results from 2020 to 2024 are taken into consideration. The academic performance of students has been fluctuating, as revealed by the results. In 2020, only 39.82% of the candidates who sat for the external examination achieved five credits, including English and Mathematics. In 2021, 81.7% of the candidates achieved five credits, including English and Mathematics, indicating high performance. However, year 2022 (76.36%) and 2023 (79.81%) record a decline compared to year 2021. More drastically, the most recent results of year 2024 showed a noticeable decline, with only 72.12% of candidates achieving five credits, including English and Mathematics.

In Nigeria, academic failure is more prominent in public secondary schools. This is due to the fact that most of the public secondary schools lack educational facilities, conducive learning environments, and have overcrowded classes as well as inefficient teachers. One undeniable factor responsible for poor academic performance in public secondary schools is large class size for learning. In Edo State, for instance, in recent times, there has been an increase in students' enrolment into public secondary schools. Parents who are unable to afford private schools enroll their children into public schools. Some schools have as many as 60, 70 or above students per class as against the teacher-student ratio of 1:40 recommended by the National Policy on Education.

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. Overcrowding in classrooms has undoubtedly affected teaching and learning negatively as well as students' academic performance. This is evident in the failure rates recorded by students in external examinations in virtually all subjects (Ajayi, 2014). The situation we have in some of the schools as common in Edo state is that teachers find it difficult moving round the classroom because of the large class size. Hence, the classroom is not properly managed by the teachers. Teachers also find it cumbersome to evaluate a large class and this drastically affects the performance of the students.

The concept of class size and its influence on academic achievement of students has been studied for quite some time. 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. For effective teaching and learning to take place, a reasonable class size, devoid of inconveniences such as students' congestion, poor students' sitting arrangement, inadequate instructional materials, infrastructural deficits and the like has to be ensured. This will enable the teaching to be conducted successfully, ensure conducive atmosphere and consequently make the achievement in all subjects possible. Adeyemi (2018) describes class size as an educational tool that can be used to describe the average number of students per class in a school setting. Following this, the students to be assigned to a certain class has to be taken into cognizance by the authorities concerned; failure of which the aftermath may be quite devastating and consequently affect the process of teaching and learning.

Students' engagement behavior and retention are affected seriously by the class size. Studies have shown that when students are placed in smaller classes, they become more engaged academically and socially. Also, with strong social academic engagement, academic performance will improve. Large class size affects the academic performance of students negatively in schools across all levels. In a large class size, teaching and learning become difficult and seriousness among students reduces. Also, class size affects classroom management, classroom instruction, and the academic achievement of the students (Kusi, 2019). Larger classes are often harder for the teachers to maintain student discipline, resulting in the focus of the classroom environment being more on student behavior than

on student academic performance. Class size directly affects classroom instruction due to larger class sizes requiring teachers to utilize class time for management tasks rather than for instruction.

Despite the overblown increase of student enrollment rate in Edo State public secondary schools, public secondary schools' facilities and structures remained unchanged, leading to overcrowding and congested classrooms. The situation threatens the process of teaching and learning and intensifies the need to have adequate classrooms to solve the problem of the overgrowing student population in secondary schools. As a result, this study aims to find out the relationship effects of class size on public senior secondary school students' academic performance in Ovia North-East Local Government Area of Edo State.

### **Statement of the Problem**

In most of the secondary schools in Edo State and Nigeria today, the teacher-student ratio has gone far beyond the stipulation of the National Policy on Education. Students stay more than forty in each class, seating arrangement are altered, thereby making teaching and learning more difficult. Educational planners in Nigeria have attributed the over bloated class size due to the explosion of population of children of school age. Public secondary schools lack adequate educational facilities and structures to cater for the overcrowding that is eating up the standard of education in the country. Students' academic performance also continually fall short of standard education in public senior secondary schools in Edo State, Nigeria. So many factors attribute to this, however, this present study hopes to find

out the relationship effects of class size on academic performance of public senior secondary school students in Ovia North-East Local Government Area of Edo State.

### **Research Questions**

The following research questions were raised in order to guide the study:

1. What is the level of class size in public senior secondary schools in Ovia North-East Local Government Area of Edo State?
2. What is the level of students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?
3. To what extent does class size affect students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?
4. What is the relationship between class size and students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?

### **Hypothesis**

HO': There is no significant relationship between class size and students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

## **Purpose of the Study**

The main purpose of this study is to investigate the relationship effects of class size on academic performance of public senior secondary school students in Ovia North-East Local Government Area of Edo State. The specific objectives of the study are to:

1. To determine the level of class size in public senior secondary schools in Ovia North-East Local Government Area of Edo State.
2. To determine the level of academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.
3. To determine the effects of class size on students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.
4. To examine the relationship between class size and students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

## **Significance of the Study**

This study will prove beneficial to students, teachers, government officials, policy makers, and other stakeholders of education. Senior secondary school students will benefit from this study by being informed on how class size can affect their academic achievement.

Thus, it will help them to maintain good classroom behavior and cooperate with teachers in order to achieve good academic performance.

Teachers of senior secondary schools will be made aware of the appropriate classroom size and the relationship between class size and students' academic performance. They will be exposed to how class size affects their classroom management and interaction with the students. Thus, they will be able to know how to manage their classrooms well and to achieve effective teaching and learning and excellent academic performance from the students.

This study will also prove beneficial to government officials, policy makers, and other stakeholders of education. It will expose them to the reality of class sizes in Ovia North-East Local Government Area of Edo State and how class size affects the teaching and learning. It will then recommend ways for them to tackle the irregularities in the Local Government Area. It will also enable the government to fashion out and implement effective policies that will enforce the adherence of the teacher-student ratio across all public senior secondary schools in the country, particularly Edo State where this study is based.

### **Scope and Delimitation of the Study**

The study investigates the relationship effects between class size and students' academic performance. The study is delimited among senior secondary school teachers in Ovia

North-East Local Government Area of Edo State. It is believed that these groups of teachers have been exposed to the knowledge, attitude and skills of the subject.

### **Definition of Terms**

The following terms are operationally defined as used in the study:

1. **Class Size:** It refers to the number of students a teacher faces during a given period of instruction.
2. **Students' Academic Performance:** This term refers to the responses that students provide during an academic program, as observed and evaluated. The students' last term result would be considered for this study.
3. **Classroom Management:** It is the process teachers use to ensure that classroom lessons run smoothly without disruptive behavior from students compromising the delivery of instruction.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **Introduction**

This chapter presents review of related literature under the following sub-headings:

- Theoretical Framework
- Concept of Class Size
- Historical Background of Class Size
- Concept of Academic Performance
- Level of Class Size in Secondary Schools
- The Negative Effects of Large Class Size on Students' Academic Performance
- Managing Large Class Size and Classroom Environment to Enhance Academic Performance
  
- The Role of Teachers in Shaping the Psychology of Classroom Environment
- Summary of Reviewed Literature

#### **Theoretical Framework**

Class size and student achievement phenomenon can be understood within the framework of environmental theory of learning and social interaction theory, since class size can be viewed as both the students' environment and the teachers' laboratory. When Frenzel, Pekrun, and Goetz (2007) conceptualized the learning environment, they saw it as

consisting of observable elements like school buildings and teaching tools, as well as some elements that are externally observed between students and teachers. They contend that in order for an environment to be considered worthy of study for both the teacher and the student, it must be well-organized and provide access to all necessary materials. This is especially true in mathematics and science, which are thought to be somewhat abstract, posing a problem for students. Nenty (2010) argued that:

The most crucial thing that happens in the academic setting is whether a learner succeeds or fails in learning. When a task intended to assess learning is unsuccessful, people frequently respond in a "naive" way by blaming their failure on a lack of skill, effort, task difficulty, or bad luck. Contrarily, success is frequently accompanied by an explanation that points to luck, skill, hard work, or ease of the task. Task difficulty and luck are perceived as external environmental factors, whereas ability and effort are perceived as internal personal factors of the learner. Conversely, Heider (1958) states that although effort and luck are deemed unstable, ability and task difficulty are stable. Attribution to internal factors is linked to positive achievement-related behavior and superior performance, whereas attribution to external factors is linked to negative achievement-related behavior.

It is evident from Nenty's earlier submission that the environment plays a crucial role in the learning process. Certain elements are deemed outside the learner's control and

are dictated by the setting in which the learning is occurring. One of these factors was perceived to be task difficulty, and the way a task is structured in the classroom can contribute to its difficulty. The majority of the time, the size of the classroom-for example, whether it is large enough to meet the needs of the student at a particular point-can be linked to this kind of difficulty as an environmental factor. This could ultimately make it harder for the student to adjust to this kind of environment.

### **Concept of Class Size**

Class size is an important factor in students' achievement in various disciplines, and studies have been conducted over the years to demonstrate how it can influence performance and, ultimately, achievement in the stated objectives of a given area of study. It is imperative that the term be conceptually clarified before the studies are brought to light.

Adeyemi (2018) defines class size as the average number of students per class in a school, whereas Hoffman (2010) defines it as the number of students per teacher in a class. According to Ogbu (2019), it is a tool for gauging how well the educational system is working.

Class size, according to Eboatu & Ehirim (2018), is the total number of students enrolled in a course or subject or the total number of students a teacher teaches in a classroom during a given time period. It refers to how many students a teacher serves during a given instructional period. Thus, class size differs from the student-

teacher ratio, which is the relationship between the total number of students enrolled in the school and the number of teachers on staff. Despite the low teacher-to-student ratio, there are insufficient teachers in certain subject areas, which leads to a large number of students being taught by a small number of teachers.

Adeyemi(2018) defines it as an educational tool for describing the average number of students per class in a school. Thus, the number of students the classroom manager can efficiently manage, oversee, and instruct at any given time should be determined.

### **Historical Background of Class Size**

Since the beginning of the American educational system, there has been a need to ascertain whether class size and student academic achievement are related (Biddlle & Berliner, 2017). One of the reasons for the early class size studies was, according to Callahan (2018), the need for educational administrators to become more effective and efficient in the use of educational funds. In an effort to implement Frederick Taylor's scientific management principles in the field of education, superintendents at the start of the 20th century examined per-pupil costs and modified class sizes in order to maximize cost ratios (Callahan, 2018). In order to provide empirical evidence for his larger class sizes, Chicago superintendent William McAndrew not only analyzed the cost-effectiveness of staffing smaller class sizes, but he also conducted his own scientific studies. As a result, a formula method for determining the appropriate

instructional workload for teachers evolved, setting the class size norms that are still in place in many districts today (Callahan, 2018).

Descriptive analysis studies summarizing class size research results were common well into the middle of the 20th century, driven by educational leaders' need to defend rising class sizes. Most of the studies found a positive correlation between lower class sizes and higher academic achievement among elementary school students (Robinson, 2010). But it was not until Glass and Smith's (1979) study that it was discovered that a class size of fifteen or fewer students was the best for raising academic achievement-particularly for elementary students who were most at risk of falling short of or failing to meet the norm. Approximately 900,000 students with an average age of 12.3 years from 77 class size studies covering 70 years of research in 12 countries were included in the Glass and Smith meta-analysis. Educational researchers used survey research to show the degree to which class size is related to academic achievement after using quantitative academic achievement data to assess the relationship between class size and academic achievement (Biddle & Berliner,2017). Class size was perceived by stakeholders in a qualitative and anecdotal way through survey research; however, the data yielded inconclusive results, with socioeconomic status and peer groups being cited as more significant predictors of academic achievement in students than class size (Flemming, Toutant, and Raptis,2012).

After analyzing the results of earlier studies on class sizes, economist Eric Hanushek (2016) concluded that any favorable findings for smaller class sizes would be the product of faulty research. Hanushek used his own research to support his claim that students' academic achievement was unaffected by smaller class sizes. Other researchers later criticized Hanushek for using a student-to-teacher ratio rather than the actual number of students assigned to each teacher to determine class size (Biddle & Berliner, 2012; Gilman & Antes, 2015).

### **Concept of Academic Achievement**

Academic performance is also referred to as "school readiness," "academic achievement," and "school performance" (Lamas, 2015). Academic performance is the outcome of learning, driven by the teacher's instructional activity and generated by the student, according to a number of authors. Academic performance or achievement refers to a student's ability to meet the goals, objectives, and achievements specified in the course of their study. Certain important factors impact academic performance. These comprise a student's personality, interests, drive, and study habits in addition to their cognitive ability.

A student's academic performance is largely determined by their cognitive ability. It describes the mental ability of a student to take in knowledge, work through issues, and pick up new ideas. It is important in predicting academic success because better academic performance is usually correlated with higher cognitive abilities (Haier et al, 2016). Among the cognitive skills linked to academic success are working memory, critical thinking, and

attention management. Working memory is the ability to temporarily store and process information in order to carry out specific cognitive tasks. According to studies, students who possess a stronger working memory are more adept at understanding complex concepts and correctly carrying out instructions in a variety of subject areas, including the English language. The capacity to absorb data, assess it, and integrate it with other knowledge to make well-informed decisions is referred to as critical thinking. A student's ability to solve problems and generate outstanding academic work are two traits of a critical thinker. The capacity to maintain concentration and successfully fend off distractions is referred to as attention control. It is a quality that is necessary for learning what is taught in class, studying, and finishing assignments.

A person's personality is the culmination of all the traits and attributes that set them apart from everyone else. It refers to individual differences in how we feel, think, and act. The five-factor model (FFM) of personality has been adopted as a standardized personality framework. The FFM includes the most commonly occurring lexical dimensions on which people differ (Poropat and Corr, 2015). These characteristics are conscientiousness (orderliness, assiduity, and friendliness), emotional stability, extraversion (sociability), conscientiousness (kindness, modesty, and accommodating), and openness (tolerance and curiosity for a wide range of intellectual experiences). The combination of these dimensions characterizes a person's personality.

The term "motivation" describes the inner workings that energize, steer, and maintain behavior in the direction of carefully defined goals. Highly motivated students are more likely to diligently complete their assignments and look for extracurricular learning opportunities. They put more time and effort into their academic studies because they want to master new concepts, which leads to higher achievement levels (Dweck,2016).

Students' academic performance is also influenced by their interests and study habits. When a student is highly engaged in a subject, he or she is motivated to learn and will work hard to meet their academic objectives. As a result, interest is an effective motivator for learning. Study habits are the actions, routines, and strategies students employ to efficiently direct their educational journey. While everyone has different study habits, there are some effective study habits that typically result in higher academic achievement: attending classes on a regular basis, taking notes during lectures, paying attention to the teacher, creating and adhering to a schedule, studying with the intention of understanding, and getting enough rest (Atsiaya & Maiyo,2015).

In the case of Nigeria, unfortunately,education at the secondary school level which is supposed to be the bedrock and the foundation towards higher knowledge in tertiary institutions, is gradually declining in Nigeria. Gegeleso and Ayodele (2023) revealed in their research that there is only a considerably moderate academic performance among secondary school students as about 49.5% have grades that could qualify them for higher class or education. This implies that students' academic achievement or performance is

dropping day by day. This is also a reflection of the recurring poor performance of students in the Senior and Junior School Certificate Examination, which has become a national problem.

Consistent lower academic performance at the Senior Secondary School is a threat to every country's educational system. This is also in tandem with the findings of Abaidoo (2018) whose findings revealed that the average academic performance (47.0%) of the Junior High School students in Gomoa Manso Basic School is weak. This result is also supported by Moradeyo and Babatunde (2020) that there is decline in the academic performance of secondary school students. Regrettably, Nigeria is known for having a hike in the rate of school dropouts compared with other countries globally due to poor performance (Okoye, et al, 2019).

### **Level of Class Size in Secondary Schools**

There are few studies on the subject of secondary school class sizes. There were significant disparities in the findings of the secondary level research. Similar to research done at the elementary and primary school levels, some studies have found that smaller class sizes positively impact student achievement, while other studies have found no discernible effect on academic performance.

#### **·Positive Effects of Class Size Reduction**

Celik and Koc (2015) conducted a study in Turkey to look into any potential relationships between student achievement and the student-teacher ratio. In order to evaluate this, the

researchers divided the total number of high school students by the total number of teachers in every Turkish city to arrive at the teacher-to-student ratio. The ranking of each city's performance on Turkey's Transition to Higher Education Exam served as the basis for the student achievement data. The analysis of Spearman Rho was used to determine how these variables were correlated. A significant correlation of  $-.561$  was found by the analysis. Cities with more students per teacher on Turkey's Transition to Higher Education Examination typically have lower achievement levels, according to this moderately negative correlation. In 2014, Krassel and Heinesen conducted research in secondary schools located in Denmark. They examined how student performance in the classroom was affected by class size. Class size was calculated using administrative registry data, and student achievement was evaluated by looking at their performance on Danish, math, and English exit exams in the tenth grade. Their findings showed that smaller class sizes had a statistically significant detrimental effect on students' academic performance.

In Hong Kong and Asia, Harfitt (2012, 2013, and 2014) carried out research. His targets were four high schools. His research aimed to find out from the students how fewer students in a class could potentially lessen xenoglossophobia. The research was an exploratory small-scale study. Several case studies were used in the research. He found that students thought maturely and confidently about their experiences learning in smaller classes. Students' reports indicate that smaller classes provide teachers and facilitators more time to spend with students and less time managing the classroom. This leads to fewer discipline issues and higher student achievement in English classes. Furthermore mentioned by the

students was the fact that smaller classrooms do not distract them as much as larger ones do. The students' perspectives were reinforced by evidence gathered from classroom observations. Students participate more in smaller classes than in larger ones, according to observations made in the classroom for Harfitt's (2012b) study. In line with his previous findings, the researcher focused on teacher perceptions in a different 2013 study. It was a case study. Interviews and observations were conducted with four English teachers. Teachers adjusted their teaching strategies and forged stronger bonds with their students in smaller classes, it was observed. The findings revealed that smaller class sizes allowed teachers to get to know their students better and create lessons that were specifically tailored to each student's needs.

Harfitt's third study (2014) focused on pedagogical changes implemented in secondary classrooms with smaller class sizes. A researcher guided the modifications, which were made in response to feedback from forty-three 10th-grade students. The students proposed more collaborative activities to make better use of the limited classroom space and increase student participation through varied coursework. Based on observations, it appeared that these changes helped the students feel more connected to one another and more included, which may have improved their academic performance.

In a 2011 study, Atta sought to understand what male 10th graders in District Dera Ismail Khan, Pakistan's rural and urban high schools thought about the effect of class size on academic performance. A chi-square analysis with a confidence level of .05 was employed by the researchers to examine the data after 400 participants completed a questionnaire.

The findings demonstrated that students thought smaller class sizes (20 students or fewer) significantly improved academic performance. The computed chi-square value of 94.46, which showed a highly significant correlation between small class sizes and the impression of higher student achievement, further corroborated this finding. However, it should be noted that these conclusions were based solely on the students' perceptions, with no objective measure of academic achievement used. As a result, these findings should be interpreted with caution. The study conducted by Brühwiler and Blatchford (2011) produced findings that were in line with the results obtained by Ata et al. (2011). The study involved 49 teachers and 898 students. The researchers employed a multimethod approach, including vignette and video tests, to evaluate adaptive teaching competency. Student achievement was assessed both before and after the lesson, and information about class size was gathered via teacher questionnaires. According to the study's findings, smaller class sizes were linked to better student knowledge, increased academic learning progress, and enhanced classroom procedures.

#### **·No Effects of Class Size Reduction**

A meta-analysis was carried out by Shin and Chung (2011) to look into the impact of class size on students' academic achievement. Using a random-effects model, they examined 17 studies that included both published and unpublished research. With an effect size of 0.20 standard deviations, the study's findings showed that students in smaller classes achieved more academically than those in larger classes. In order to find sources of variance and moderator variables that predicted the effects of class size reduction (CSR), the researchers

also carried out a fixed-effects categorical analysis. They noticed that compared to unpublished studies, effect sizes tended to be higher in published studies. Additionally, the findings indicated that CSR had favorable effects on a variety of academic subjects. Compared to secondary schools, elementary schools saw a greater impact from CSR. Although the overall outcomes of CSR were encouraging, there was one noteworthy outlier in the tenth grade. Finally, when it came to CSR, the results were mixed but generally positive when considering state location.

Wyss, Tai, and Sadler (2010) conducted a study in the United States that investigated the long-term effects of class size in high school science classes on students' academic performance. A total of 31 states were selected. The sample consisted of 7000 students. The purpose of this study was to examine these students' grades in freshman-level college science classes. Their findings revealed that there was little to no effect on student achievement until class sizes were reduced to less than 11. In contrast to the previous study, which focused on a specific subject area in middle schools without using standardized tests, this one did not find any significant changes in student achievement.

A study by Corak and Lauzon (2012) focused on students aged 15 and used PISA data. It was carried out in Canada. The study set out to look into how student achievement was impacted by class size and time of term. They did not investigate variations in other subjects; instead, their primary focus was on the PISA test reading scores. A random sample of students was chosen from particular schools, out of the 30,000 total students in the study population. The results of the examination of different Canadian provinces were

inconclusive. According to Corak and Lauzon's (2012) study, the outcomes differed between the provinces. It was discovered that not every student would gain from smaller class sizes in provinces where the mean achievement gaps were predicted to be smaller. In Ekiti state, Nigeria, Owoeye and Yara (2011) studied the relationship between student academic performance and class size between 1990 and 1997. The research comprised fifty secondary schools located in both rural and urban regions throughout the state. They made use of information from the West African School Certificate Examinations (WASCE), which were held at the same time. They used a survey known as the Student Class Size Questionnaire (SCSQ) to gather data, and t-tests and mean calculations were part of the analysis. Between students in large and small classes from urban schools, the researchers did not find any statistically significant differences in academic achievement ( $t=1.49; p<0.05$ ). Likewise, they found no statistically significant variation in the academic performance of pupils in rural large classes compared to those in rural small classes ( $t=0.58; p<0.05$ ). They advised the government and policymakers to give building more classrooms top priority in order to guarantee that class sizes do not exceed thirty. It was also encouraged for the Parent Teacher Association (PTA), philanthropists, and other charitable organizations to get involved in helping the government build more classrooms and buildings in order to improve students' performance in the West African School Certificate Examinations (WASCE).

Jakobsson, Persson, and Svensson (2013) carried out a study in Sweden. The purpose of the study was to look into how blended learning affected students' academic performance.

The study analyzed how various teaching philosophies were perceived by students and compared them. This research made use of a case study with a quasi-experimental design. There were 112 participants in all. A control group (=51) and an experimental group (n =61) were formed out of them. To ensure consistency and validity, the researchers created an achievement test and questionnaire. The data were analysed using SPSS. The results showed that there were notable differences between the experimental and control groups, with the experimental group performing better and having more favorable attitudes about blended learning. Additionally, the study found that students who performed well in science classes also showed more positive attitudes. In light of these findings, the study recommends that additional research be conducted on the use of blended learning in higher education institutions.

#### **·Conclusion for Secondary Education**

The relationship between class size and student achievement in secondary schools is still unclear. Various studies, including Atta et al. (2011), Brühwiler and Blatchford (2011), Heinesen (2010), and Krassel and Heinesen (2014), found that reducing class size had a statistically significant positive effect on student achievement. Other studies, such as Shin and Chung (2011), Corak and Lauzon (2012), Wyss et al. (2010), Owoeye and Yara (2011), and Jakobsson et al. (2013), found little or no improvement in student achievement as a result of class size reductions.

## **The Negative Effects of Large Class Size on Students' Academic Performance**

Previous research has demonstrated that a variety of justifications exist to support the detrimental impacts of large class sizes on student performance. Academics contended that teachers are effective regardless of the size of their classes. This is achievable, particularly when educators are able to monitor every student in the class throughout the teaching and learning process. Almulla (2017) looked into how Saudi Arabian primary school teachers perceived the impact of class size on instruction. To gather and examine field data, the researcher used a mixed research approach in the survey design. In addition, surveys and semi-structured interviews were used to collect information from the participants. The findings indicated that both large and small class sizes had some effects on instruction, with teachers preferring to work in smaller settings. Thus, from the perspectives of various academics, experience demonstrated that crowded or large classes have an impact on the standard of instruction provided in a school system.

There is a high teacher-to-student ratio in large class sizes. The real educational process as well as the efficacy of the teachers are hampered and disrupted by this unbalanced interaction. The survey used in the study to collect data consisted of questionnaires. As closely as this study was tied to the current study, it did not reveal how small or medium-sized classes affected the students' academic performance. Additionally, performance-related factors were taken into consideration in the reviewed literature.

In a similar vein, Kusi and Manful (2019) investigated the relationship between student academic achievement and class size in a few chosen nursing and midwifery training

institutions in Ghana's central region. To compile data from the field, the researcher employed both quantitative and qualitative methodologies. Nevertheless, the researcher collected data from the participants using semi-structured interviews and questionnaires. According to the results, there is an inverse relationship between class size and academic performance; as a result, students in large classrooms outperformed those in smaller ones. According to the scholars, having too many students in a single classroom limits the teacher's ability to improve an efficient teaching process. Large class sizes were also linked to issues with truancy, misbehavior, noise pollution, and student attention, particularly among the slower learners. Furthermore, because this study concentrated on midwifery colleges, it was very different in terms of its case and context. The two studies' objective variables and contexts differ greatly as well. These factors were discovered and the connection between large class sizes and academic achievement in public secondary schools was established by the current study.

According to Michael (2016), in some schools in Papua New Guinea, teachers and students alike encounter a variety of difficulties when teaching large classes. This study found that large class sizes and overcrowded classrooms in most schools were caused by high student enrollment rates following the implementation of fee-free education. This finding implied that the Ghanaian government implemented a policy without first determining the logistics of expanding classrooms throughout the country. The implementation of new educational policies necessitates careful planning and strategies. As the study predicted that fee-free education increases the rate of student enrollment, it was appropriate that Ghana's central

government, with the assistance of the local government, ensure that the necessary resources for the new policy are available.

The study also showed that since the government implemented free education but failed to plan ahead to guarantee that every school had an adequate number of classrooms, there has been a teacher shortage. Although both studies maintained their unique study contexts and methodology, the reviewed study made a significant contribution to the current investigation. The current study combined questionnaires and interviews with mixed research methods, whereas the previous study used only quantitative methods and questionnaires.

According to Cortes et al. (2012), misbehavior and other disciplinary issues in large classes contribute to the fact that class size has an impact on students' performance. Compared to students in large classes, those in small classes achieved comparatively higher grades. These researchers found that students in smaller classes learned more because there was less disruption during the course of the lesson. In smaller classes, students engaged in learning activities and group projects, which led to higher scores and excellent discipline. In larger classes, students received lower grades and disruptive behavior made it harder for teachers to keep control of the classroom. According to their findings, students in one classroom seemed to be more likely to engage in disruptive behavior. All of the students in the class are affected when one or more of them behave badly in terms of their learning activities.

According to a survey by Mweru (2010), the Kenyan government's 2003 decision to offer free primary education caused a surge in students, which packed classrooms. Furthermore, the societal need for formal education in Nigeria led to a sharp increase in enrollment, which caused teachers to employ disproportionate methods in their instruction. The attitudes of both students and teachers toward the learning process were impacted by the packed classrooms. Mweru's study concentrated on the effects of free primary education, but it did not examine the components of academic excellence. By evaluating the educational process and the students' academic results, the current study filled this gap. In a qualitative investigation, Nirashnee (2015) looked at the experiences of mainstream school teachers dealing with packed classrooms. With the use of unstructured questionnaires and teacher observations, the researcher used a case study design. The study's conclusions showed that teachers' stress levels were heightened by a lack of classroom space, health and safety concerns, a lack of student-teacher interaction, restrictions on the use of different teaching strategies, an increase in workload, and laborious task of scoring assignments and exercises given to students. Consistent with the current study's findings, it was noted that teacher preparation, professional development, policy implementation, lack of management support, and resource scarcity were factors associated with the impact of class size.

## **Managing Large Class Size and Classroom Environment to Enhance Academic Performance**

A key element of good teaching and learning is efficient classroom management. Lesson planning is the first step in the process, as it helps to streamline the teaching process and support students as they learn. Positive learning environments where students feel safe, supported, and involved help them perform better (Aslam, Sulerman, Zulfigar, Shafaat, & Sadiq, 2014). The general atmosphere of the classroom is greatly influenced by classroom management, especially when it comes to the environmental factor. Every student feels more secure and safe when they are well-behaved and committed to their work. Students are then able to focus on their studies without having to worry about their well-being, which eventually results in better performance.

According to Buchong and Sheffer (2013), clear, student-friendly classroom rules and procedures must be established early on in order to facilitate effective teaching. Students gain confidence as they navigate their learning journey because this step establishes a stable and structured classroom environment. In order to make sure that every student feels welcome, the writers stressed the significance of fostering a friendly and inclusive classroom environment. Teachers can support diverse learners in a variety of ways to accomplish this.

Buchong and Sheffer emphasized how important it is to create a cooperative learning atmosphere in the classroom. Adding color to make the room more visually appealing and arranging the materials so they were easily accessible were two important tactics for

designing an inviting classroom. They also proposed establishing traditions and holding classroom meetings to encourage students to become effective problem solvers while also promoting collaboration and cooperation among diverse classmates. Finally, the authors emphasized the importance of teaching students self-advocacy skills. The classroom environment has a significant impact on children's learning and development, preparing them to participate more effectively in their surroundings.

Greenberg et al. (2014) conducted a study of 122 traditional teacher preparation programs in the United States. Their goal was to determine whether these programs included research-based strategies to effectively guide teacher candidates in classroom management from the start of their training. The researchers investigated whether these programs provided opportunities for teacher candidates to practice research-based classroom management strategies, techniques, and approaches.

According to instruction, practice, and training, Greenberg et al. assessed how each program handled classroom management. Their research showed that, in spite of the majority of programs' claims to incorporate classroom management into their curricula, there was a conspicuous dearth of significant time and resources devoted to classroom management training and instruction. According to the study, classroom management should be given top priority in teacher preparation programs. New teachers should also be given enough time and resources to acquire the skills and knowledge required for effective classroom management.

Encouraging students to succeed academically requires establishing a positive classroom climate through efficient discipline. According to Mendler (2012), students are more likely to put in more effort in their studies and are less likely to behave disruptively in a classroom where they feel supported and at ease. It is essential to have established clear rules and procedures at the beginning of every academic year in order to foster a positive classroom environment.

Positive discipline is one of the many disciplinary strategies that can be used in the classroom to reduce student misbehavior. The application of encouragement is the fundamental tenet of positive discipline. Encouragement from teachers makes students more confident and willing to take chances in their education because they know they will not be laughed at or ashamed if they fail. Praising students for their efforts and the caliber of their work is one way to cultivate encouragement in the classroom.

Praising students' efforts and the quality of their work is one way to foster encouragement in the classroom. They recognized that behavior problems among students can have detrimental effects on their academic achievements. By effectively addressing and resolving behavior issues in the classroom, teachers can allocate more of their time and energy toward nurturing relationships with students and fostering a classroom community characterized by respect and kindness.

Charles and Senter identified three key empowering perceptions and necessary skills that contribute to the benefits of using positive discipline:

1. **Establishing Classroom Norms:** This entails creating clear expectations and rules for the classroom setting. Understanding and adhering to these norms improves students' behavior and contributes to a harmonious learning environment.
2. **Class Meetings:** Class meetings provide an opportunity to develop important skills and perceptions that will help you succeed in life. These meetings allow students to engage in open discussions, share their perspectives, and work together to address classroom issues.
3. **Building Student-Teacher Relationships:** Positive discipline strategies prioritize the development of strong relationships between teachers and students. When students feel connected to their teachers, they are more motivated to succeed academically and actively participate in the learning process.

According to Charles and Senter's research, positive discipline techniques empower students by fostering critical abilities and perspectives that have a major impact on their success in a variety of life domains. They also address behavioral challenges.

According to Evanshen and Faulk (2011), a classroom's physical design and organization can have a big impact on how well students perform academically. It is essential to make sure the classroom is prepared and orderly from the very first day of instruction. Students can easily transition into a new school year and keep their excitement for learning by creating a welcoming environment that is clutter-free, radiates warmth, and invites them in.

The positioning of desks to maximize order and reduce chaos and confusion while facilitating a safe and effective flow of student traffic is a crucial component of classroom layout. Students' motivation and effort are positively impacted when they are not crammed into small spaces and have enough space. Giving students a personal workspace can help increase their engagement and output as well.

In addition, one of the most important factors in classroom layout is organizing student resources. Materials and supplies for the classroom should be placed in a convenient location for students to access. Evershen and Faulk (2011) suggested an organization that makes resources easily accessible to students, reducing lost time and transitions.

In conclusion, the physical arrangement and organization of a classroom are critical in creating an environment that promotes students' academic success. A clutter-free, welcoming environment with thoughtfully arranged desks and easily accessible resources can enhance the learning experience and keep students motivated and working hard.

According to Johnson and Johnson (2012), cooperative learning helps students become engaged participants in their own education by giving them a sense of control over their own ideas and the abilities necessary to work well with a diverse range of peers. In a cooperative learning environment, students develop important communication skills, learn to lead, contribute to group decision-making, build trust, address emotional concerns, and understand their peers' perspectives. Cooperative groups provide an opportunity for individuals to develop interpersonal and small group skills. In this setting, teachers serve as facilitators, allowing students to take on leadership and instructional responsibilities.

In

comparison to competitive or individualistic learning approaches, cooperative learning promotes greater efforts to build positive relationships and improve psychological well-being. These strategies can be used in the classroom to help students achieve their full potential.

Schlechty (2012) elaborated on the concept, stating that cooperative learning is more than just putting students in groups; it entails creating classroom activities and projects that promote independence, individuality, effective communication, social skills, and accountability. Students work together in cooperative groups to solve problems and develop solutions to a variety of challenges. Integrating cooperative groups into the classroom enriches the culture by encouraging students to give their all.

### **The Role of Teachers in Shaping the Psychology Classroom Environment**

Numerous studies on classroom environments have also placed a strong emphasis on the behaviors of teachers and how they affect the learning environment, with a particular emphasis on teacher development and school culture. According to some research, the complexity of creating a productive classroom environment may exceed the growth potential of recently graduated teachers. In order to reduce feelings of isolation and promote positive relationships with other adults in the school community, some researchers recommend that professional development for new teachers include intensive mentoring and teaching partnerships (Miller & Cunningham, 2011).

Several recommendations for educators have surfaced in the literature, building on the study of both physical and psychological settings. These recommendations include developing plans for classroom management and methods for building stronger relationships with students. Early in the academic year, it is advised to set up rules and procedures in the classroom and to consistently enforce consequences for students. Studies show that consistency and equity have a positive effect on behavior and academic performance. Students view teachers who uphold respectful classroom environments as having higher expectations for learning, and teachers who do so are reciprocally respected by their students (Miler & Cunningham, 2011). Though this can be difficult if education places a heavy emphasis on accountability and high-stakes testing, teachers are encouraged to prioritize the learning task over the final outcome or grade assigned (Miller & Cunningham, 2011).

While the majority of research on classroom environments is inevitably restricted to specific classrooms, a small number of studies have looked into how school culture affects classroom ambiances. The results indicate that schools with an authoritative culture-defined roles, shared accountability, and clear guidance-are generally viewed favorably by both teachers and students. On the other hand, teachers and students generally believe that schools with poor leadership or a history of minor disputes impede the advancement of education (Miller & Cunningham, 2011).

### **Summary of Reviewed Literature**

The chapter began by foregrounding the theoretical framework suitable for this study. It related the environmental theory of learning and social interaction theory to the study. Afterwards, the concept of class size was explained, drawing references from several authors. This chapter traced the historical background of class size discussion to the study of Glass and Smith in 1979. It continued to explore the concept of academic performance and explained the level of class size in secondary schools across countries by citing relevant authorities. Furthermore, the negative effects of large class size on students' academic performance were adequately discussed. The chapter also discussed how teachers can properly manage large class size and classroom environment to enhance academic performance. Finally, the chapter highlighted the role of teachers in shaping the psychology of classroom environment to achieve desired results among students.

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter outlines the methodological approach employed to investigate the relationship effects between class size and students' academic performance. It details the:

- Research Design
- Population of the Study
- Sample and Sampling Technique
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Administration and Collection
- Method of Data Analysis

#### **Research Design**

This study adopted the descriptive survey research design to investigate the relationship effects between class size and students' academic performance in Ovia North-East Local Government Area of Edo State. It involved the use of a self-structured questionnaire. The design is the most preferred because a representative characteristic of a large population is studied.

## **Population of Study**

The population for the study comprised the 213 teachers in the 15 public secondary schools in Ovia North-East Local Government Area of Edo State. The population was collected from the Ovia North-East Local Government Area public senior secondary school enrolment data, Ministry of Education.

## **Sample and Sampling Technique**

The sample size was made up of 50 teachers from six public secondary senior secondary schools in Ovia North-East Local Government Area of Edo State. With the aid of the simple random sampling technique, 9 teachers were selected from Ekosodin Secondary School, 8 from Ezomo College, 8 from Nifor Secondary School, 9 from Army Day Secondary School, 8 Utese Secondary School, and another 8 from St. David Boys Model Secondary School.

## **Research Instrument**

The instrument used in this study for the collection of data is the questionnaire titled: "Class Size and Students' Academic Performance Questionnaire (CSASAPQ)." The questionnaire was divided into two sections: Section A and Section B. Section A collected the demographic data of the respondents, while section B focused on the objectives of the study respondents will answer appropriately. The responses were rated on a modified Likert

4-point rating scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

### **Validity of Instrument**

The researcher employed face validation. The instrument was submitted to the researcher's supervisor and two other experts in the Department of Educational Management, Faculty of Education, University of Benin, who reviewed it for clarity, relevance to the research objectives, and appropriate coverage of the intended content. The supervisor's feedback ensured the instrument accurately measured the desired information. Following revisions and approval, the instrument was ready for data collection.

### **Reliability of Instrument**

Reliability test was conducted out on the research instrument in order to ascertain the degree to which the instrument yielded consistent result. The data collected was tested with the Cronbach's Alpha to measure the consistency as it calculated all the variables of the test and a reliability coefficient value of 0.81 was obtained.

### **Method of Data Collection**

The researcher used a self-structured questionnaire approach for data collection. Questionnaires were manually distributed to the respondents in their various schools. Respondents completed the questionnaires independently, and the researcher collected

them upon completion. This method allowed respondents to respond at their own pace and minimised the researcher's influence on their answers.

### **Method of Data Analysis**

The study employed the descriptive analysis method, which included frequency counts, simple percentage, mean and standard deviation. The results were presented in tables for ease of discussion.

## CHAPTER FOUR

### PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter presents the results obtained from the analysis of data using the statistical procedures discussed earlier in chapter three.

#### Presentation of Results

**Research Question One: What is the level of class size in public senior secondary schools in Ovia North-East Local Government Area of Edo State?**

**Table 1:** Percentage of the level of class size in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

S/N	ITEMS	YES	NO	YES(%)	NO(%)	Decision
1.	There are less than ten students I manage as a subject teacher in the classroom.	0	50	0	100%	Disagree
2.	There are between ten to thirty students I teach in the classroom as a subject teacher in my class.	17	33	34%	66%	Disagree
3.	There are between thirty to fifty students I teach in the classroom as a subject teacher in my class.	37	12	74%	26%	Agree
4.	There are between fifty to seventy students I teach in the classroom as a subject teacher in my class.	34	16	68%	32%	Agree
5.	There are more than seventy students I teach in the classroom as a subject teacher in my class.	27	23	54%	46%	Agree

*Source: Researcher's Field Survey, 2024*

*Note: Yes (greater than 50%)=Agree; Less than 50%=Disagree*

Table 1 represents the level of class size in public senior secondary schools in Ovia North-East of Benin City. The findings from the first item on the questionnaire show that a total 100% of the teachers disagree that there are less than ten students they manage in the classroom. Item 2 on the table shows that only 34% of the respondents agree that there are between ten to thirty students they teach in the classroom, while 66% of the respondents disagree on the same item. Thus, the majority of the respondents disagree on the item. 74% of the respondents show their agreement on the fact that there are between thirty to fifty students they teach in the classroom, showing that they teach a large class size. On the other hand, 26% of the respondents teach less than that class size. Furthermore, 68% of the respondents agree that there are between fifty to seventy students they teach in the classroom, while the remaining 32% show that they teach less than fifty students as subject teachers. The findings on the item show that majority of the respondents agree on the large class size. The last item on the table shows that 54% of the respondents teach more than seventy students in the class, which is just fairly above average. The remaining 46% of the respondents disagree that they teach above seventy students.

**Research Question Two: What is the level of students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?**

**Table 2:** Mean and standard deviation on the level of students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

S/N	ITEMS	N	SA	A	D	SD	Mean	Std.D.	Decision
6.	Students do not perform well in individual or group tasks assigned to them.	50	23	18	3	6	3.41	.477	Agree
7.	Students perform poorly in class exercises, tests and examinations.	50	18	15	9	8	3.28	.861	Agree
8.	Students find it difficult to participate in class discussion and activities.	50	26	14	7	3	3.58	.497	Agree
9.	Students do not feel confident in asking questions and seeking help from teachers in a large class.	50	19	12	7	12	2.52	1.059	Disagree
10.	Students find it difficult to express themselves clearly in English Language in both written and spoken formats.	50	19	15	9	7	3.23	.508	Agree

*Source: Researcher's Field Survey, 2024*

*Note: N=50. SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree. Weighted average =  $16.41/5=3.2$*

Table 2 above shows the result on the level of students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State. Majority of the respondents agree on items 6 ( $M=3.4; SD=0.48$ ), 7 ( $M=3.3; SD=0.86$ ), 8 ( $M=3.6; SD=0.5$ ), and 10 ( $M=3.23; SD=0.5$ ). The findings of the items respectively show that the respondents agree that students do not perform well in individual or group tasks

assigned to them, students perform poorly in class exercises, tests and examinations, students find it difficult to participate in class discussion and activities, and students find it difficult to express themselves clearly in English Language in both written and spoken formats. The respondents, however, disagree on item 9 ( $M=2.5$ ;  $SD=1.06$ ) that students do not feel confident in asking questions and seeking help from teachers in a large class. The highest mean value is on item 8 while the lowest mean value is on item 9. The mean average of the table is 3.2, showing that large class size inhibits the level of students' academic performance in public secondary schools.

**Research Question Three: What are the effects of large class size on students'academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?**

**Table 3:** Mean and standard deviation on the effects of large class size on students'academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State

S/N	ITEMS	N	SA	A	D	SD	Mean	Std.D.	Decision
11.	Students hardly see writings on the board when seated at the back in a large class.	50	9	10	14	17	1.673	1.067	Disagree
12.	Large class size makes it difficult for students to get individualized attention from teachers.	50	32	9	7	2	3.81	.683	Agree
13.	Students can do other things like copying notes in large class when another lesson is going on without the teacher noticing.	50	31	9	3	7	3.76	.834	Agree
14.	Large class sizes do not allow more time for teachers to help students with practical activities and develop their skills which can increase student's achievement.	50	24	17	7	2	3.43	.752	Agree
15.	Students are not very active in large class size than in small class.	50	23	11	9	7	3.24	.474	Agree

~~Source: Researcher's Field Survey, 2024~~

Note: .N=50.SA=Strongly Agree,A=Agree,D=Disagree,SD=Strongly Disagree.Weighted average=15.9/5=3.18

Table 3 above shows the results on the extent class size affects students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State. Majority of the respondents agree on item12(M=3.8;SD=0.68),,item

13(M=3.7;SD=0.83),item 14 (M=3.4; 0.75) and item 15(M=3.2SD=0.7.Thus,the majority of the respondents agree that large class size makes it difficult for students to get individualized attention from teachers, students can do other things like copying notes in large class when another lesson is going on without the teacher noticing, large class sizes do not allow more time for teachers to help students with practical activities and develop their skills which can increase student's achievement, and students are not very active in large class size than in small class. However, majority of the respondents also disagree on item 11(M=1.67;SD=1.1)which states that students hardly see writings on the board when seated at the back in a large class. The highest mean on the table is on item 12 while the lowest mean on the table is on item 11. The weighted average mean of the table is 3.18,showing that the effects of large class size on students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State are high.

### **Hypothesis One**

**H<sub>0</sub>: There is no significant relationship between class size and students'academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.**

**Table 4:** Pearson Product Moment Correlation (PPMC) statistical analysis of the difference between class size and students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

Variables	N	Mean	SD	r	p	Decision
Class size	50	2.87	1.274	.841	.000	Rejected
Students' academic perf. <i>P</i> < 0.05	50	3.24	.753			

Table 4 shows that class size had mean 2.87 and standard deviation of 1.28 while academic performance of students had mean of 3.24 with standard deviation of 0.75. The table also revealed r-value of .841 and p-value of 0.000. Therefore, the null hypothesis was rejected since p-value (0.000) is less than the criterion value (0.05). Hence, there is significant relationship between class size and students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State.

### **Discussion of Findings**

The findings gotten from the survey of this study show that there is an outburst of large class size in the public senior secondary schools in Ovia North East of Edo State. Most of the respondents agree that they teach between 30 to 70 students in a classroom. Hence, this proves the unhealthy teaching environment teachers are subjected to teach in, and this subsequently affects the effective learning and performance of the students who are forced to sit and learn under this detrimental condition. This sad reality does not follow the educational policy which states and prescribes a student-teacher ratio of 1:25 for pre-

primary classes; 1:35 for primary and 1:40 for secondary schools. The National Policy on Education on students-teachers ratio is meant to achieve effective teaching and learning in the classroom. Effective teaching and learning are the key to achieving quality education in the country because student will learn well and understand what the teachers have taught them. However, when the classrooms are large in size effective teaching and learning are not achieved. The results further confirmed the study by Azigwe et al (2016) which indicated that in a large class teacher find it difficult to teach effectively and efficiently leading to students not being able to also learn effectively since low participation in class activities were possible.

As revealed by the findings of the study in Table 4, large class size inhibits the level of students' academic performance in public secondary schools in Ovia North East Local Government of Edo State. The academic performance of students plummets to a drastic level. As observed by the majority of the respondents, the findings from the survey shows that students do not perform well in individual or group tasks assigned to them, students perform poorly in class exercises, tests and examinations, students find it difficult to participate in class discussion and activities, and students find it difficult to express themselves clearly in English Language in both written and spoken formats. However, majority of the respondents disagree on item 9 ( $M=2.5$ ;  $SD=1.06$ ) that students do not feel confident in asking questions and seeking help from teachers in a large class. This shows that, when placed in a small class size, students' confidence can earn them the opportunity

of achieving good academic performance where teachers are in a better condition to focus their attention on them, using effective student-centered teaching methodologies.

Furthermore, table 5 of the survey reveals that the effects of large class size on students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State are high, with the mean average of 3.18. Majority of the respondents agree on item 12(M=3.8;SD=0.68), item 13(M=3.7;SD=0.83), item 14(M=3.4;0.75) and item 15(M=3.2;SD=0.47) which respectively suggest that large class size makes it difficult for students to get individualized attention from teachers, students can do other things like copying notes in large class when another lesson is going on without the teacher noticing, large class sizes do not allow more time for teachers to help students with practical activities and develop their skills which can increase student's achievement, and students are not very active in large class size than in small class.

This confirms the assertion that some small class pedagogies which could include project work where students are individually monitored and provided with continuous feedback on investigative tasks would develop higher order thinking skills and good academic performance among students (Altinok and Kingdon 2012; Bosworth, 2014) in Ruffin (2018). There is a strong reason to conclude that large class size could negatively affect students' performance. Students are likely to lose concentration, focus and even attention from teachers. Consistent with some earlier studies, it has been established in this study that small class size provides learning experiences that facilitate increased collaboration

and communication among students, provide helpful learning opportunities and foster student metacognitive skills through the development of information discovering and help-seeking behaviors, Altinok and Kingdon (2012); Bosworth (2014) in Ruffin (2018), through practical orientation and class participation.

The result of the research hypothesis on Table 6 reveals that there is a significant relationship between class size and secondary school students' academic performance ( $r=.841; P<0.05$ ). This means that class size influences the level of secondary school students' academic performance. This is in line with the studies of Adeyemi (2018) in his findings on the influence of class size on the quality of output in secondary schools revealed that schools having an average class size of 35 and below obtained better results in the secondary school certificate examination (SSCE) than schools having more than 35 students per class. Oguntoye (2011) in his own study found that class-size had negative coefficient with student's academic performance in examination. 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. Fafunwa (2010) postulated that there is a gap in the quality of students in crowded classrooms, using inadequate and absolute equipment, disillusioned teachers. These combined deficiencies perhaps affected the student's academic performance.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **Summary**

The study investigated the relationship effects between class size and students' academic performance in Ovia North-East Local Government Area of Edo State. To achieve the purpose of the study, four research questions were raised to guide the study. A questionnaire was designed to elicit information from the respondents. The questionnaire was face validated to determine appropriateness, clarity and suitability of the items. The Cronbach's Alpha reliability was used to ascertain reliability and a reliability coefficient of 0.81 was obtained. Questionnaires were distributed to fifty (50) teachers from six public secondary senior secondary schools in Ovia North-East Local Government Area of Edo State. The descriptive survey research design was adopted for the study. An analysis of data was done using frequency count, percentages, mean and standard deviation.

#### **Findings**

The following is the summary of the findings:

- There is large class size in the public senior secondary schools in Ovia NorthEast of Edo State.
- Large class size inhibits the level of students' academic performance in public secondary schools in Ovia North East Local Government of Edo State. The academic performance of students plummets to a drastic level.

- Large class sizes not only affect students in negative ways but the teachers also. Teachers do not adopt effective teaching methods in the classroom.
- There is a significant relationship between class size and secondary school students'academic performance. Hence, class size influences the outcome of students'academic performance.

## **Conclusion**

The study investigated the relationship effects between class size and students' academic performance in Ovia North-East Local Government Area of Edo State. Based on the study's findings, the researcher concluded that the consistently low academic performance of Nigerian secondary school students, caused by class size, should not persist. The study discovered that class size has a significant impact on secondary school students' academic performance. Therefore, expanding class sizes is essential to addressing the ongoing issue of low academic achievement among Nigerian secondary school students.

## **Recommendations**

Based on the findings of the study, the following recommendations were made:

- Increased funding for secondary school education in Nigeria should be a top priority for policymakers in the Ovia North East Local Government Area. Funding increases will aid in addressing issues with secondary school academic performance.

- In order to prevent overcrowding in classrooms, Ovia North East Local Government Area supervisors, inspectors, and school principals should focus more on the number of students in each class.
- The state government should construct more classrooms in schools with large student populations, and the authorized teacher-to-school ratio of 1:40 should be appropriately applied when allocating teachers to schools.
- Teachers should periodically participate in seminars and workshops to improve their teaching abilities, particularly when instructing large classes.
- Nigeria's secondary school teacher and classroom shortage must be viewed as a national emergency that requires the federal government and the states to give it careful consideration.

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**APPENDIX**

**DEPARTMENT OF EDUCATIONAL MANAGEMENT**

**FACULTY OF EDUCATION**

**UNIVERSITY OF BENIN, BENIN CITY**

**CLASS SIZE AND STUDENTS' ACADEMIC PERFORMANCE**

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**QUESTIONNAIRE (CSASAPQ)**

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Dear Respondent,

Kindly read the following questionnaire items and tick the answers that accurately reflect your choice where appropriate. The responses you give are purely for research purposes and will be treated confidentially.

Thank you.

Yours faithfully,

Researcher.

**SECTION A (BIO DATA)**

Gender: Male  Female  (  ) (  )

Qualification: T.CII  , NCE  , DIP  , B.A (Ed.)  , B.Ed  (  )

Keys to Response: Please tick (✓) only one option for all the items as related to your school.

**Research Question One: What is the level of class size in public senior secondary schools in Ovia North-East Local Government Area of Edo State?**

S/N	ITEMS	YES	NO
1.	There are less than ten students I manage as a subject teacher in the classroom.		
2.	There are between ten to thirty students I teach in the classroom as a subject teacher in my class.		
3.	There are between thirty to fifty students I teach in the classroom as a subject teacher in my class.		
4.	There are between fifty to seventy students I teach in the classroom as a subject teacher in my class.		
5.	There are more than seventy students I teach in the classroom as a subject teacher in my class.		

Keys to Responses: SA (Strongly Agree); A(Agree); D (Disagree); SD (Strongly Disagree)

S/N	ITEMS	SA	A	D	SD
	Research Question Two: What is the level of students'academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?				
6.	Students do not perform well in individual or group tasks assigned to them.				
7.	Students perform poorly in class exercises, tests and examinations.				
8.	Students find it difficult to participate in class discussion and activities.				
9.	Students do not feel confident in asking questions and seeking help from teachers in a large class.				
10.	Students find it difficult to express themselves clearly in English Language in both written and spoken formats.				
	Research Question Three: What are the effects of large class size on students' academic performance in public senior secondary schools in Ovia North-East Local Government Area of Edo State?				
11.	Students hardly see writings on the board when seated at the back in a large class?				
12.	Large class size makes it difficult for students to get individualized attention from teachers.				
13.	Students can do other things like copying notes in large class when another lesson is going on without the teacher				

	noticing?				
14.	Large class sizes do not allow more time for teachers to help students with practical activities and develop their skills which can increase student's achievement?				
15.	Students are not very active in large class size than in small class?				

## APPENDIX II

The analysis of the data is presented in three sections. The first section deals with the presentation of respondents' demographic data, the second section deals with the presentation of results and the third section presents the discussion of findings.

**Table 1:** Respondents' Gender

Gender		Frequency	Percent
Valid	MALE	18	36
	FEMALE	32	64
	Total	50	100.0

Table 1 shows demographic data of the respondents based on gender. Out of the 50 respondents that were sampled, 18 of them were males who make up 36% of the sample size, while 32 were females, making the rest 64% of the sample size chosen for this study.

**Table 2:** Respondents' Teaching Qualification

Teacher's Qualification		Frequency	Percent
Valid	B.A.Ed.	29	58
	B.Ed.	21	42
	Total	50	100.0

Table 2 shows demographic data of the respondents based on their teaching qualification. Out of the 50 respondents that were sampled, 29 (58%) of them were B.A.(Ed.) holders, while the remaining 21 (42%) were B.Ed.holders.

### APPENDIX III

Scale:ALL VARIABLES

#### Case Processing Summary

		N	%
Cases	Valid	50	100.0
	Excluded <sup>a</sup>	0	.0
	Total	50	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.813	15