

**ANALYSIS OF STUDENTS' PERFORMANCE IN WASSCE ON THE  
MANAGEMENT OF PUBLIC SENIOR SECONDARY SCHOOLS IN ZARIA  
AND GIWA EDUCATION ZONES, KADUNA STATE, NIGERIA (2011 – 2015)**

**BY**

**MUKHTARI Fatima**

**P14EDFC8029**

**NOVEMBER, 2017**

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,  
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ZARIA NIGERIA**

**NOVEMBER, 2017**

## DECLARATION

I declare that the work in this Dissertation entitled “**ANALYSIS OF STUDENTS’ PERFORMANCE IN WEST AFRICAN SECONDARY SCHOOL CERTIFICATE EXAMINATION ON THE MANAGEMENT OF PUBLIC SENIOR SECONDARY SCHOOLS IN ZARIA AND GIWA EDUCATION ZONES, KADUNA STATE, NIGERIA (2011-2015)**” has been carried out by me in the Department of Educational Foundations and Curriculum. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No parts of this dissertation was previously for another degree or diploma at this or any other Institution.

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**Date**

## CERTIFICATION

This dissertation entitled “ANALYSIS OF STUDENTS’ PERFORMANCE IN WEST AFRICAN SECONDARY SCHOOL CERTIFICATE EXAMINATION ON THE MANAGEMENT OF PUBLIC SENIOR SECONDARY SCHOOLS IN ZARIA AND GIWA EDUCATION ZONES, KADUNA STATE, NIGERIA (2011-2015)” by **MUKHTARI Fatima** meets the regulations governing the award of the degree of Masters of Educational Administration and Planning (M.Ed), Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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## **DEDICATION**

This dissertation work is dedicated to my beloved husband Prof. M. Mahmud for his support financially, time, encouragement given to me during my course of work and research work. My parents for their prayers and my children; Abdulshakur M. Mahmud, Zainab, Aisha and Sadiya for their understanding, prayers and encouragement.

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## ABSTRACT

*This study aims at analyzing the Students' Performance in (WASSCE) on the management of public senior secondary schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria 2011-2015. The study was guided by five objectives,(1)identify students' performance in Mathematics in WASSCE on the Management of public senior secondary schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015),(2)determine students' performance in English language in WASSCE on the Management of public senior secondary schools in Zaria and Giwa Education Zones Kaduna State, Nigeria (2011-2015), five research questions,basic assumption and hypotheses were formulated.Significance and scope of the study were discussed. Various literature on reasons for continuous mass failures in West African Secondary School Certificate Examinations performance among Senior Secondary Schools in Zaria and Giwa Education Zones were reviewed.The research Design was an ex-post facto in collaboration with descriptive research design. The population of the study comprises all the 46 Senior Secondary schools in the two Zones. All the 20 examination centers (schools)with 26,719 registered Students' were randomly chosen for this study.The instrument used for datacollection was score sheet of Students(Gazette).The research instrument was validated by experts, the two supervisors and other lecturers in the Department of Educational Foundations and Curriculum.Data were collected from 20 examination centers in Zaria and Giwa Education Zones by presenting letter of introduction. Kruskal-Wallis statistical tool was adopted to compare the mean achievement of subject/subjects to calculate the relationship between the variables of the study.Result shows that there was effect of management on public senior secondary schoolsin Students' Performance in Mathematics with highest mean in 2015 and lowest in 2011 in WASSCE in Zaria and Giwa Education Zones. There was effect of Management on public senior secondary schools in students' performance in English language withhigher mean in 2015, and lowest in 2013 in WASSCE in Zaria and Giwa Education Zones. There was effect of management on public senior secondary schools in students' performancein Science Subjects with highest mean in 2015 and lowest in 2011 in WASSCE in Zaria and Giwa Education Zones. Therefore, it was recommended among others that, The State's ministry of education and the management of secondary schools should organize regular special programmes such as seminars, workshops, conferences,provisions and management of Mathematics instructional materials and service training for senior secondary school teachers to improve their competence and apply any method that will fit a particular topic in Mathematics for better students' performance and to update their knowledge on the new development in other areas of specialization, School management should advice teachers of public senior secondary schools to encourage students to devote more time, effort to learning and reading in English language through constant practice in spoken English and listening to models, reading materials such as books, magazines, newspaper in English language and practicing writing of letters, articles, essays, participating in school quiz and provide libraries, create and manage students' club and societies for the management of students' performance in West African senior secondary school examination.*

## **OPERATIONAL DEFINITION OF TERMS**

- 1. Analysis:** Analysis is the process of breaking a complex topic or substance into smaller parts or units in order to understand or gain better.
- 2. Students:** Students or pupil is a learner or someone who attends an educational institution.
- 3. Performance:** Is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost and speed in a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.
- 4. WASSCE:** Is a type of standardized test in West Africa. It is administered by the West African Examinations Council. It is only offered to candidates residing in Anglophone West African countries.
- 5. Secondary School:** Is the education children receive after primary education and before the tertiary stage.
- 6. Management:** Management consists of the interlocking functions of creating corporate policy and organizing, planning, controlling, and directing an organization's resources in order to achieve the objectives of that organization or educational goals.

## **ABBREVIATIONS**

- 1. NP:** Non - Parametric
- 2. NPE:** National Policy on Education
- 3. WASSCE:** West African Secondary School Certificate Examination
- 4. WTC:** Women Teachers College
- 5. G.S.S:** Government Secondary School
- 6. G.G.S.S:** Government Girls Secondary School
- 7. S.S.S:** Science Secondary School
- 8. SSCE:** Secondary School Certificate Examination
- 9. FRN:** Federal Republic of Nigeria



## **CHAPTER ONE INTRODUCTION**

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

Education in Nigeria is an instrument “par excellence” for effecting national development. It has witnessed active participation by non-governmental agencies, communities, and individuals as well as government interventions. It is therefore desirable for the nation to spell out in clear and unequivocal terms the philosophy and objectives that underlie its investment in education.

Government’s intention was that the far-reaching provisions set out in all sections of the policy should transform all aspects of the nation’s life overtime. To this end, government set up a national educational policy implementation committee to translate the policy into workable blueprint that would guide the bodies whose duty would be to implement the policy. The committee was also to develop monitoring system for educational plan as it evolved. For the philosophy to be in harmony with Nigeria’s national goals, education has to be geared towards self-realization, better human relationship, individual and national efficiency, effective citizenship, National consciousness, National unity, as well as towards social, cultural, economic, political, scientific and technological progress. According to Obanya (1993), several changes have occurred in the educational system in Nigeria since the Old African Society to the present day. These changes lack substance, despite the formation of educational theories formed with the hope of bringing positive and lasting changes. This unsteadiness in the system is attributed to inherited colonial system of education which lacked objectives and identification with any national goals thereby besetting it with ambiguities, contradictions and lack of uniformity in practice in different parts of the federation.

To rid the system of these inconsistencies and hindrance to a steady progress in education and national development process of change in the policy and systems of

education in Nigeria was launched formally in 1969 at the National Curriculum Conference held in Lagos. This conference led to the philosophy of education, on which a national policy on education was formed with a view to equipping the educational system with all that is necessary to launch Nigeria into the future politically, socially, morally and technologically.

Fafunwa (1971) added that any effective educational planning at all levels should reflect the national philosophy on education and development. According to him, educational planning in Nigeria must focus attention on the five main national objectives as stated in the Second National Development Plan of Nigeria which was endorsed by the federal government in 1970 as the necessary foundation,(National Policy on Education 1979).

With all these efforts, Nigerian secondary education which is the link between the primary and the university levels of education does not only occupy a strategic place in the educational system in Nigeria, but also prepares the individual to become useful within the society. Among the levels of education in Nigeria, secondary education which is the midpoint of the entire educational system is fast losing its relevance which among other factors is due to unsatisfactory and poor performance of secondary school students in public examinations (Onipede, 2003).

Management in organization is the function that coordinates goals and objectives using available resources efficiently and effectively. Management comprises planning, organizing, coordinating, commanding, directing, staffing, leading and controlling an organization to accomplish a goal. Educational Management is the utilization of both human and material resources so as to effectively and efficiently accomplish functions of teaching, extension work and research.

The National Policy on Education seeks to bring about a social, economic and cultural development in society by focusing on human resource development through education. Education there, must have more relevant curricular, be dynamic, and empower students to bring about desirable social changes while preserving the desirable aspects of our existing culture. The national developmental goals require the professional management of education to bring about the effective and efficient functioning of educational institutions.

The scope of educational management is wide and includes the history and theories of management science, roles and responsibilities of an educational manager along with the requisite managerial skills. Educational management in secondary schools involves the application of management principles in designing, developing and effecting resources towards achievement of educational goals (Okumbe, 2001). This effectiveness according to UNESCO (2009) is judged by the extent to which schools generally meet the expectations of the society within which they are established. Nigerian government has demonstrated commitment to the provision of quality secondary school education through allocation of financial resources, provision of trained teachers and establishment of quality assurance department. There are factors that researchers and school systems point when describing quality schools and features of schools that have been improved in effectiveness. According to Zepeda (2004) & Fullan (1991), such features include; commitment to success for all, flexibility and responsiveness, shared vision, climate of challenging and stimulating teaching, strong and fair disciplinary climate.

According to Lamb (2007), the most effective features were; foster connectedness, increasing the trust placed on students, provide tasks with immediate tangible benefits; make spaces within schools and curricula for diverse students' needs.

World Bank (2008) posits that much research has demonstrated that retention and the quality of education depends primarily on the way schools are managed, more than the abundance of available resources, the capacity of schools to improve teaching and learning is strongly influenced by the quality of the leadership provided by the head teacher. Concerned effort to improve school leadership is one of the most promising points of intervention to raise retention, the quality and efficiency of secondary education across sub-Saharan Africa. In Nigerian leadership training for secondary school heads was to improve quality of education.

According to Unugbro (2004), the most successful secondary school today are those that are translating modern management theories into practical action rather than continuing to depend upon traditional individual management experience trial and error method. Recent years have witnessed the failure of many secondary school (senior) public academics not because they are worthless but because they are poorly managed. According to Boyd & King (1983), education is a powerful instrument in transformation and modernization of society a commitment to the belief has characterized by intensive effort to extreme expansion of educational system opportunity have resulting phenomenal increase in higher number of school and in the study of environment of the students. Unfortunately, the problems of staffing, planning, communication, directing, lack of facilities if the environment to be a conducive atmosphere, inadequate of institutional material, problems of administration strategies, higher population, finance and political reason have been apparent for the desire to

lessen the effectiveness of their impediment in the teaching and learning process. In this era of technology, it is an advantage to introduce it to in other to promote the secondary school training and other scientific approach on the teaching industries. Secondary schools in Zaria and Giwa Education zones are confronted with the problems of management as such secondary school in more generously the problem of management has become a difficult task in public secondary schools. Due to social and economic change that is taking place in the community coupled with the over increment in knowledge and dynamic method of doing things, this study is therefore designed to examine the problems of student's performance in WASCCE on the management of public senior secondary schools in Zaria and Giwa education zones, Kaduna state, Nigeria.

Educational management focuses on:

1. The study of educational planning at macro levels, its goals, principles, approaches and processes and institutional planning and educational administration at the macro level.
2. Decision making, problem solving, communication, information management and effective team building.
3. Planning of curricular and co-curricular activities, curriculum and academic calendar
4. Maintenance of school records, evaluation of Students' achievement
5. Effective allocation of financial resources and the planning of the budgets of institutions.

Educational management aims at:

1. Achieving an institutions' objectives
2. Improving the processes of planning, organizing and implementing within the institution
3. Creating, enhancing and maintaining a positive public image of the institution.
4. Optimal utilization of human resources (administrators, non-teaching staffs, teaching staffs and students)
5. Enhancing the efficiency and effectiveness of infrastructure
6. Ensuring job satisfaction
7. Creating and maintain a congenial and cohesive atmosphere
8. Managing interpersonal conflicts, stress
9. Improving interpersonal communication
10. Building a relationship with the community

According to Nwokocha & Amadike (2005) academic performance of students is the standard for testing the educational quality of a nation; therefore, it is easy to maintain a high performance in internal and mostly external examinations.

Student's performance has been a subject of discussions and debate among scholars; because it is the most vital educational policy and indicator that stakeholders are interested in (Alaka, 2011). Xinyi (2006) informed that student's performance has been a subject of national interest and comparative studies among countries since the beginning of educational theory.

Aremu, Oluwole, & Fayowbo, (2001), while stressing the importance of academic performance in the educational system was of the view that academic performance is a

fundamental criterion by which all teaching-learning activities are measured, using some standards of excellence and the acquisition of particular grades in examinations to measure candidate's ability, mastery of the content, skills in applying the knowledge acquired to a particular situation. The current poor performance of students' and management of public senior secondary schools in West African Secondary School Certificate Examinations (WASSCE) in Nigeria is disturbing the minds of the parents, guardians, teachers, counselors and educationist.

Majority of candidates who sat for the May/June 2011 West African Secondary School Certificate Examination (WASSCE), conducted by the West African Examination Council (WAEC) recorded mass failure as only 31% have five credits including English Language and Mathematics (Uwadiae, 2011). The head of National office further disclosed that out of 1.5 million candidates who sat for the May/June, 2011 WASSCE examination only 472,906 candidates obtained five credits which include English Language and Mathematics. The implication of this results revealed, that only 31% would be eligible for admissions into tertiary institutions. West African Secondary School Certificate Examination also reported that 38% of the 1.67million students who sat for the exams passed with five or more credits including English language and Mathematics. WASSCE's website, [www.WASSCEdirect.org](http://www.WASSCEdirect.org) (2016).

The West African Examination Council said 122 thousand Nigerian students sat for May/June 2012 senior school certificate Examination will not have any results, as their results have been withheld. Uwadiae announced the release of the remaining results in Lagos. 38.81% out of the 1.67million candidates that sat for the examination scored credits in at least five subjects including English Language and Mathematics on

increase of about eight per cent from 2011. The results of 1.54million candidates, 91.1% of the total candidates, have been fully released;while 150,874 candidates got a partial release of their results, because few of their subjects were still being processed due to registration and documentation errors. In 2013, total candidates who obtained five credits including English and Mathematics were 639,760, while in 2014, 529,425 candidates obtained five credits including English and Mathematics. It is also revealed that 1 million students failed WASSCE exam, 31% passed with five credits including English, Mathematics. 81,573 results were withheld.

The recent results released by in May/June 2015 Senior School Certificate Examination. speaking at a press conference, the head of WASSCE national office Charles Eguridu (2016) said the council withheld results of 118, 108 candidates who engaged in examination malpractices. He added that the candidates from public schools in the 13 states may not get their results unless their state government either pay up their registration fees or produce bank guarantees committing them to paying the debt. He also revealed that out of 1,593,442 candidates who sat for the examinations, only 616,370 candidates came out with credits in five subjects and above, including English language and Mathematics.

This study is therefore designed to examine and identify the level of performance of students by analyzing final year examinations results in some selectedPublic Senior Secondary Schools in Zaria and Giwa Education Zones of Kaduna State. The study is to find out whether the problem of poor performance of students existing in Zaria and Giwa education Zones or not.



Most of Nigerian schools of thought uphold the view that the performance was improving, while others argued that the performance level was falling terribly (Onipede, 2003). Also Adeyegbe (2002) added that there was a decline in students' performance in SSCE, as can be seen in the subsequent results released by examination bodies;

The results of Mathematics released by WASSCE from 2004-2007 was terrible, this because majority of the students perform very poor as indicated by the examination body, as follows; in 2004 only 33.97% got credit, in 2005 38.20%, 2006 41.12%, and in 2007 46.7% have credit. While in English language which is the official language and the language for teaching and learning in Nigerian schools; only 29.59% have credits in 2004, 25.36% in 2005, 34.48% 2006 and 29.94% have credits in 2007 Statistics office, WASSCE, Lagos, Nigeria 2009. The performance of students in all subjects in (WASSCE) Examination was almost the same because they performed very low as indicated.

Yunusa (2010), West African Examination Council recorded very poor results in 2008, only 23% passed SSCE, while in 2009, only 21.9% got the required credits. In 2010 May/June only 25% who sat for the examination passed with minimum university requirement. All these are barriers to every educational system. There is no educational system is problem free; however, the decay in Nigerian educational system is becoming disturbing and frustrating to the students & parents.

## **1.2 Statement of the Problem**

Poor management of public schools on students' performance in Senior Secondary Schools in West African Examination council (WASSCE) is becoming worrisome to

educational development in Nigeria and particularly in Kaduna State. Observations and reports from examination bodies revealed that a high percentage of public Secondary Schools students continue to perform poorly due to improper management of resources in Senior School Certificate Examinations. Over the years, the majority of students that sat for the May/ June West African Examinations Council (WASSCE) have been recording mass failure, not only in the area of overall performance of the students but also in the core subjects like English, Mathematics, Sciences subjects like (Chemistry, Biology, Physics), Geography, Technical and Vocational studies and History where the high state of failure have been a dominant feature of the Students performance in the public Senior Secondary Schools in Zaria and Giwa Education Zones of Kaduna State.

The growing rate of students' failures in West African Secondary School Certificate Examination (WASSCE) has injected worry into the minds of all those who have concern for Nigerian youths. In a state or country where a greater number of youths are school dropouts, social vices such as armed robbery, raping, cultism, kidnapping and others will be on the increase. Some products of today's secondary education system can neither usefully live in the society nor move into higher institution without their parents and or forgery. They cannot think for themselves or respect the views and feelings of others. They do not value the dignity of labor except for things that will give them quick money. There are fears that illiterate population of youths can be a fertile ground for terrorists, fanatics, miscreants and tribalism that can be manipulated by public secondary schools. Some other problems faced in educational management include; the teachers are lacking equipment and teaching materials, there are inadequate facilities in the laboratories and libraries, inadequate planning for enrolment population

of the students, unfavorable administration decision and improper management of human resources.

The annual releases of Senior Secondary Certificate Examination (SSCE) results conducted by West African Certificate Examination Council (WAEC) justified the nature of poor management of public Secondary school on students' performance in almost all the subjects offered by the students, more especially in English and Mathematics which are the pre-requisite for gaining admission into tertiary institutions and in other subjects area of specialization such as arts and social sciences, sciences, vocational and technical subject.

The performance in Senior School Certificate Examination May/June, 2004-2007: showed that Mathematics 2004 33.97%, 2005 38.20%, 2006 41.12%, and in 2007 only 46.7% have credits. While in English language in 2004 29.59%, 2005 25.36%, 2006 34.48% and in 2007 29.94%, (Statistics Office, WAEC, Lagos, Nigeria 2009).

Characteristically, statistics revealed out by the two examination bodies, the National Examination Council and the West African Examination Council, which is the particular focus of this study, each time the results of West African Examination Council (WASSCE) examination are released, they point to the fact that students drawn from public schools have not been performing up to the standards despite the high investment which the government both at the federal and state levels, as well as the parents have been making in the sectors. In the overall subjects offered by the students in SSCE according to Yunusa (2010), in 2008, 2009, 2010, West African Examination Council recorded very poor result. In 2008, only 23% passed the SSCE, while in 2009

only 21.9% got the required credits and in 2010 May/ June only 25% who sat for the examination passed with minimum university requirement.

The out-cry on the persistent poor management and unpromising performances of many public Senior Secondary School students in Senior School Certificate Examination (SSCE) conducted by West African Examination Council (WAEC) in Nigeria is embarrassing. According to (Uwadiae, 2011), mass failure was recorded in 2011 as only 31% made five credits including English and Mathematics and also out of 1.5 million candidates who sat for the May/June 2011 WASSCE examination only 472,906 candidates obtained five credits which includes English Language and Mathematics. He also stressed that 587,630 candidates 38.93% obtained credits and above in Mathematics while 838,314 which is 55.34% recorded credits and above in English Language.

The results of May/June 2015 revealed that out of 1,593,442 candidates who sat for the WASSCE, only 616,370 candidates came out with credits in five subjects and above, including English language and Mathematics. In 2013, total candidates who obtained five credits in English and Mathematics were 639, 760, while in 2014, 529,425 candidates obtained five credits in English and Mathematics. One million students fail WASSCE examination 31% passed with five credits including English, Mathematics, withheld 81,573 results (Udwadiae, 2015).

Even though schooland management of human and material resources differs from one another in term of academic performance, it may be argued that such variation in performance is unavoidable. However, several factors among the numerous problems

confronting management of Public Senior Secondary Schools in Zaria and Giwa education Zones will without doubt positively or negatively affect student's performance in WASSCE Examinations. Many of them lack infrastructures, facilities and equipment, such as books, libraries, science, vocational and language laboratories, maintenance of instructional materials for the teaching and learning process, maintenance of discipline, management and administration, inadequate inspection and supervision of school curriculum and time table by state ministry of education, interpersonal relationship between school and community, time management, teachers level of commitment, inter-personal relationship between students and teachers and students' welfare support services, lack of incompetent teachers and political appointment from above.

Other factors include students' indiscipline in schools, inadequate supervision of students conduct at home, lack of effective communication skill, lack of students participation in school decision-making, lack of students participation in co-curricular activities in schools, inaccurate techniques of evaluating student's academic work, poor attitude to school work, teachers qualification to teach in senior secondary school, students-parents relationships, inaccurate statistical data and lack of funds allocation for proper maintenance of human and material resources in schools and lack of teacher's motivation. These, therefore, have been a source of concern to the researcher in taking a decision to examine students' academic performance in (WASSCE) on the management of public schools from 2011-2015 in Zaria and Giwa Education Zones, Kaduna State in order to find out the level of students performance, to see if their performance is improving or declining in the subjects thought and offered by the students in the area of this study, in single and group of subjects such as English language, Mathematics,

Sciences, Art and Social Sciences, Vocational and Technical Subjects and also to find out in which subject or group of subject the students performed better and to find out whether the management of human and material resources of public senior secondary schools on students' performance differ.

### **1.3 Objectives of the Study**

The Study is set to achieve the following objectives:

1. Identify Students' performance in Mathematics in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
2. Determine Students' performance in English Language in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
3. Examine Students' performance in Science Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
4. Ascertain Students' performance in Arts and Social Science Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
5. Find out Students' performance in Vocational and Technical Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).

#### **1.4 Research Questions**

The following research questions are formulated to guide the study.

1. What is the performance of students in Mathematics in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)?
2. What is the performance of students in English Language in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)?
3. What is the performance of students in Science Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)?
4. What is the performance of students in arts and Social Sciences Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)?
5. What is the performance of students in Vocational and Technical Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)?

#### **1.5 Hypotheses**

This study is guided by the following hypotheses

1. There is no significant difference in the Performance of students in Mathematics in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).

2. There is no significant difference in the performance of students in English Language in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
3. There is no significant difference in the performance of students in Science Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
4. There is no significant difference in the Performance of students in Arts and Social Science Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).
5. There is no significant difference in the performance of students in Vocational and Technical Subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015).

## **1.6 Basic Assumptions**

1. It is assumed that proper management of human and material resources will help improve students' performance in Mathematics.
2. Proper management of human and material resources in English Language likely have significant difference in Zaria and Giwa education Zones.
3. Students in Science oriented Secondary schools where proper management of human and material resources are available will probably perform better than other schools in Zaria and Giwa education Zones.



4. Performance in Arts and Social Science Subjects is likely to be best than that of Science subjects where management of human and material resources are available.
5. The performance of students in the twenty schools in each subject/subjects is likely to differ significantly as influenced by management of human and material resources.

### **1.7 Significance of the Study**

Considering the importance of secondary education in Nigerian educational system and the increasing in mass failure in WASSCE on the management of public senior secondary school, it has become imperative to explain some basic truth to staff of Zaria and Giwa Education Zones to enlighten them to know the level of performance of students within the Zones, whether they are performing very well or below expectation. It would also be of significance to the respective school authorities in the state to take corrective measures within their authority through adequate planning of resources to meet the demands and guide their action and future of public schools' staffs and students for successful teaching and learning process in schools, especially Zaria and Giwa Education Zones.

Also to the state government and officials of Ministry of Education (Inspectors and Administrators) in order to take right decision on the provision of necessary facilities to help in teaching and learning process which will help improve students' performance on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones Kaduna State, Nigeria. It would also be of significance to parents to supervise their child/children's work at home in order to improve their performances.

The study will also inform the parents of the capability on the management of various Public Senior Secondary Schools within Zaria and Giwa Education Zones.

### **1.8 Scope of the Study**

This research work on analysis of students' performance in West African Secondary Schools Certificate Examination (WASSCE) on the management of Public Senior Secondary Schools is limited to some Public Senior Secondary Schools in Zaria and Giwa Education Zones Kaduna State, Nigeria between the years 2011-2015. The scope of the study is restricted to 20 examination centers public schools under Zaria and Giwa Education Zones that have presented students for WASSCE examination for at least five years. Due to large number of Public Senior Secondary Schools in these Zones, the researcher will not cover all public schools in the two Zones of the State which consists of (46) Public Senior Secondary Schools. Zaria Education Zone has (33) Public Senior Secondary Schools, while Giwa Education Zone has (13).

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter examined related literature on the academic performance of students in WASSCE in the subjects offered by students in the final year of Secondary School students in Nigeria. Specifically, the review has been conducted under the following headings conceptual framework of the study:

Conceptual Framework of the study

Concept of Management

Elements of Management

Meaning of Academic Performance

Meaning of analysis

Theoretical framework of the Study

Students' performance in WASSCE in mathematics

Students' performance in WASSCE in English language

Students' performance in WASSCE in science subjects

Students' performance in WASSCE in arts and social science subjects

Students' performance in WASSCE in vocational and technical subjects

Challenges to Students' performance

Ways to Manage Students' Performance

Empirical studies

Summary

#### **2.2 Conceptual Framework**

Performance in school is evaluated in a number of ways. For regular grading, students show their ability by taking written and oral tests, performing

presentations, turning in home work and participating in class activities and discussions. To describe how well a student has done, at the state level, students are evaluated by their performance on standardized tests geared towards specific ages and based on a set of achievement. Students in each age group are expected to meet their expectations. According to Ashikhai (2010) education at Secondary School level is supposed to be the basis and the foundation toward higher knowledge in tertiary Institutions. It is an investment as well as an instrument that can be used to achieve more rapid economic, social, political, technological, scientific and cultural development in a country. It is very unfortunate that, Secondary Schools in this day's do not measuring up to the standard expected of them. There has been public outcry over the persistently poor performance of secondary school students in public examinations.

The problem of low level trend in academic performance of students has often been attributed to a number of factors among which are the principal's leadership style, teacher's quality, home factors, government factors, and inadequate provision of educational (Human, Material and financial resources). Hence, this study was limited to the provision of human and material resources as potent factors for students, performance.

Adequate provision of education resources (human and material) is very crucial because of its role in the attainment of educational objectives. Human resources are a unique educational input necessary for the overall development of skill acquisition and literacy of the students. Human resources refer to teaching and non – teaching staff within the educational system. Availability of these resources are needed to achieve excellence in the educational system. It has been reported that Secondary Schools in Zaria and Giwa

Education Zones in Kaduna State do not have the required number of teachers (both in terms of quantity and quality), due to high student – teacher ratio in the schools. Personal observation has also shown that material resources are in short supply in the schools. Inadequate provision of fund by governments leads to the poor status of facilities in public schools. What goes on in public schools presently shows that, nothing good enough can come out of most public schools if modern facilities and equipment are not adequate in schools. And even if funds are provided, they are not in connection with the school facilities, appropriate human resources to prepare candidates for West African Examination Council (WASSCE) (Owoeye & Yara, 2011).

### **2.3 Concept of Management**

Management involves the methodology by which an organization operate, plan and control its activities and utilization of human and material resources, information and finances in order to meet its goals and objectives Smith (1982).

According to Lawrence (1979) is guiding human and physical resources into a dynamic hard hitting that attain the objectives to the satisfaction of those served and with a higher degree of morale and sense of attainment of the part of those served. Management according to Sherlekar (1984) implies that guidance, leadership, Co-ordination and the control of all effort or activities of individual or group of people within an organization toward reacting a common objectives or goals. However, management is the process undertaken by one or more individuals to co-ordinates the activities of others to achieved results not achievable by one individual acting alone.

### **2.3.1 Management**

The term management implies working with people through people to achieve goals (Dare, 2006). In the school system this means, the principal works with teachers and other staffs to achieve school goals. Management could also be seen as exploration, allocation, utilization and evaluation of both human and material resources with the view to achieving organizational goals. In the school, the principal (search for teachers) assigns duties to teachers, allow them to teach and evaluate what they teach.

Educational management is a process of organizing/designing and maintaining the school environment for the achievement of educational goals. In other words, educational management involves all that happens in school with the view of having easy teaching and learning activities such as planning, budgeting, coordinating, decision-making, organizing, controlling, supervising, staffing, communication and evaluation among others (Jumare,2015).

According to Ribbins (1985), Management can be described as an art, a science, an organization, a person, a discipline, or a process.

#### **2.3.1.1 Management as an Art**

As an art, management is about carrying out organizational functions as tasks through people. This art involves the application of techniques in;

1. Human and public relations
2. The delegation of an authority, assigning and sharing responsibilities and duties
3. Communication including decision-making and problem solving
4. Managing change

### **2.3.1.2 Management as a Science**

Management here is concerned with establishing a philosophy, laws, theories, principles, processes and practices which can be applied in various situations including schools (Ribbins, 1985).

### **2.3.1.3 Management in an Organization**

As an organization, management is about creating formal structures and an establishment based on a mission (or goals), objectives, targets, functions and tasks. For example, social and welfare organizations in government management can refer to education and health services, whilst public security management services could refer to the police and military (Ribbins, 1985).

### **2.3.1.4 Management as a Person**

This may be seen as a person or a group of people. For instance, a teacher could say ‘the school management has changed the timetable in the middle of the term’. This could be referring to the head alone or to all senior staffs, or it could refer to the members of the governors or school committee. In schools with several promoted staffs a ‘senior management team’ might be formed in much the same way as a government has a cabinet of ministers (Ribbins & Thomas, 1985).

### **2.3.1.5 Management as a Discipline**

In this sense, management is a field of study with various subjects and topics, knowledge, skills and attitudes in management can be acquired through learning, from experience and from certified courses. Management is a collection of processes including such things as decision-making, problem solving and action planning. These

processes involve the management of resources including human, material, financial and time. These processes are known as the functions of managers. (Ribbins & Thomas, 1985)

### **2.3.2 Basic Functions of Management**

Management operates through five basic functions; planning, organizing, coordinating, commanding and controlling.

- i. **Planning:** deciding what needs to happen in the future and generating plans for action
- ii. **Organizing:** making sure the human and non-human resources are put into place
- iii. **Coordinating:** creating a structure through which an organization's goals can be accomplished.
- iv. **Commanding:** determining what must be done in a situation and getting people to do it
- v. **Controlling:** checking progress against plans. (Roberts, 2018).

### **2.3.3 Basic Roles of Management**

- i. **Interpersonal:** roles that involve coordination and interaction with employees
- ii. **Informational:** roles that involve handling, sharing and analyzing information
- iii. **Decisional:** roles that require decision-making. (Pugh & Hickson.2007).

Educational management aims at: achieving an institution's objectives improving the processes of planning, organizing and implementing within the institution. Creating, enhancing and maintaining a positive public image of the institution, it also aims at provision, arrangement, motivation, mobilization and evaluation of both human and



materials resources within the education sector for goal attainment. Management as an activity involves making sure human and material resources are guided using all available techniques and methods to achieve goals. In the school as a system, there exist human and material resources. Human resources include teachers, students, clerks, messengers, potters, securities, community, school heads, typists, secretaries, farm managers, technicians, counselors and others. While material resources include tables, chairs, classes, offices, laboratories, sport fields, sport facilities, school bus, school clinic, school generator, students' hostels, staff residences, staff and students record, first aid box, textbooks, library, store, and kitchen.

The primary aim of all the above mentioned is to facilitate/eases work to achieve school goals.

#### **2.4 Basic Elements of the Management**

The functions under each of the stages of the management process consist of a number of basic elements such as:

- i. **Decision-Making:** the key function of every manager when at every state of the management process he makes choices among alternative courses of action.
- ii. **Problem-solving:** a more complex form of decision-making when the choices among alternative are made to overcome obstacles or constraints affecting the progress towards the goals.
- iii. **Human Relations:** when through motivation and exercise of leaderships, the cooperation and participation of others are obtained and
- iv. **Communication:** the energizing force in an organization which governs collaboration and collective progress towards the goal. (Webber. 1975)

Other elements of management are also as follows by (Kashyap, 2016)

- i. Educational planning
- ii. Educational Administration
- iii. Educational Organization
- iv. Educational Direction
- v. Educational Co-ordination
- vi. Educational supervision
- vii. Educational controlling and
- viii. Educational evaluation

Planning implies a basic function that is how the aims and objectives are to be realized. Before launching upon a particular educational programmes and implementing it, the person or authority in-charge or at the helm of affairs is required to take decisions about the methods and strategies for effectively and efficient by achieving the objectives. This means planning has to be done for managing the total educational programmes and for this, the basic facts and figures, background, date and profile are necessary (Diksha Kashyap, 2016).

#### **1. Educational Planning:**

According to Hagman & Schwartz, (2009) “planning selects among alternatives, explores, routes before travel begins and identifies possible or probable outcomes or action before the executive and his organization is committed to any. Educational planning has been one of early instruments of independent governments. Resources have to be used as effectively and systematically as possible.

Today, educational planning is an absolute requirement. The complexities of modern technology in the prevailing society have given rise to the need for planning

in education. Educational planning is a process utilized by administrator while performing the role of leader, decision maker, change agent and so on.

The nature and characteristics of educational planning are as follows:

- a. **Goals and Objectives:** educational planning is a means of creating relevant present and future goals and objectives for any educational institution or organization.
- b. **Team work:** Modern educational planning doesn't put stress on the fact that only the top administrator of the government should be involved in planning. Rather, planning should be the responsibility of all people concerned with the desired change. For this, a team of experts in the related area, responsible people and those who will implement the plan should determine the goals and appropriate ways of attaining them.
- c. **Decision-Making:** Educational planning is the preparation of pre-course in the decision making process. It has to help for determining the option to be taken. While educational administration is mostly decision making, planning in education is only the other side of it.
- d. **Social and economic goals.** Modern educational planning emphasizes that the goals of a democratic society should be social and economic in nature concerning with the welfare and progress of all citizens rather than the self-centered or selfish goals of some special interest groups. The expected goals of the society and needs of children and young pupils in the schools and colleges should be the broad frame of reference.
- e. **Anticipation:** Modern educational planning anticipates probable developments and needed change in future, much ahead of time so that proper facilities,

supporting media and required resources for implementing the planned change may be secured. Hence, relevant changes and effort are avoided and the changes are effectively implemented.

- f. Choice of best alternative: modern educational planning is a logical, systematic and scientific process different from the elementary kinds of procedure utilized in the part of bringing about changes in the system of education (Hagman, & Schwartz, 2009).

### **Principles of Educational Planning**

1. Educational planning must be one aspect of general national planning
2. Research is planning based on system analysis
3. Planning must be a continuous process
4. Planning should find a definite place in educational organization
5. Planning should take into consideration resources and establish conditions of work
6. Planning must be realistic and practiced
7. Planning must ensure active and continuing participation of all interested individuals and groups
8. Planning should utilize the services of specialists without allowing
9. Planning provides for continuous evaluation
10. Planning should have opportunity for modification for further action. (Hagman, 2009).

## **2. Educational Administration**

Educational administration is another vital task of educational management so far its scope is concerned. It plays a vital role in making management of every educational

programmes grand success. It is a specialized set of organizational functions whose primary purpose is to ensure the efficient and effective delivery of relevant educational services as well as implementation of legislative policies through planning, decision making and leadership behavior. This keeps an organization to make focus or predetermine objectives of the programmes or system. (Hagman & Schwartz 2009)

According to Graham Balfour, (2009) “Educational administration is to enable the right students to receive the right educational administration is to enable the right teacher at a cost within the means of the state under conditions which will enable the students’ best to profit by their training”.

### **Characteristics of Educational Administration**

1. Making all efforts and agencies work together in joint venture
2. Assisting in the realization of the aims and objectives of education
3. Rendering services to society in its progress and progress of individuals
4. Educational administration is concerned with diverse human beings, the teachers, students, parents and public and coordination of their efforts
5. It is concerned with all those activities undertaken and fullest utilization of resources for education (Graham Balfour, 2009).

### **Functions of Educational Administration are:**

1. To delegate authority and responsibility
2. To strengthen local initiative and local control
3. To secure the greatest return from the money spent
4. To implement a democratically determined programme
5. To determine policies and implement them

6. To utilize special capacities of personnel and material resources. (Graham Balfour 2009)

### 3. **Educational Organization**

According to Bryson (2002), an organization can be defined as stable pattern of interaction, among conditions or groups having a collective identity (a name and a location) pursuing interest and achieving given tasks and coordinated through a system of authority. Organizations are social units deliberately constructed and reconstructed to seek specific goals. Educational organization means two things; one is the educational institution and the other is organization of resources. All types of resources meant for the educational programme are organized or made available in an organization or institution for realizing the educational objectives or goals that are prefixed because poor organization leads to wastage and bad outcome. The school organization is a combination of two words. One is school and the other is organization. In order to understand the meaning of school organization, it is essential to understand the meaning of school and organization separately.

But as our concern is to know the features of school organization, let us know it's different features:

1. All teachers without any discrimination should get the same facilities
2. Teachers should get equal pay for equal work and similar qualifications
3. Provisions for retirement and the corresponding benefits should be the same for all teachers.
4. Rules for the appointment of teachers should be the same
5. Conditions of services should be the same despite differences in management.

#### **4. Educational Direction**

It is essential that there must be an authority or an order or a policy for providing direction to the management of every educational programme and for taking decisions in solving the problems. Therefore, direction is necessary for giving leadership in order to implement the programmes and carrying out the entire management. Democratization of management seeks to encourage the pride, enjoyment and growth among the individuals working in the organization. Each individual must work according to his needs, interests and capabilities. (Miller, 2018)

#### **5. Educational Coordination**

For making smooth management of every educational programmes for resulting in adequate realization of its goals or objectives, there is need of ensuring coordination and cooperation among the multifarious resources. Through this coordination all facilities will be unified and all services are harmonized. So through this aspect of educational management, different kinds of resources especially human resources have to be interrelated or coordinated for utilizing the resources properly in an effective manner (Miller 2018).

#### **6. Educational Supervision**

According to Graham Balfour, (2009) Educational administration and supervision are now regarded as the total process of making any educational programmes a grand success therefore, there is the need of ensuring and maintaining good interpersonal relationships between the administrator and supervisor, the supervision and teachers, teachers and student, school and community among others.

Educational supervision is the means to coordinate, stimulate and direct the growth of the teachers, to stimulate and direct the growth of every individual student through the exercise of his talents towards the achievement of richest goals.

In the modern perspective, educational supervision is an expert technical service primarily concerned with studying and improving the conditions that surround learning and student growth. So, educational supervision is now conceived as a process which has for its purpose for the general improvement of the total teaching-learning situation.

He also pointed out some characteristics of Educational supervision in relation to the management of an educational programmes as:

1. It is a creative and dynamic expert technical service
2. It provides leadership with extra knowledge and superior skills
3. It promotes cooperative educational efforts in a friendly atmosphere.
4. It stimulates the continuous growth of teachers and development of students.
5. It gives coordination, direction and guidance to teacher's activities.
6. It helps in achievement of appropriate educational aims and objectives
7. It improves instruction and the teaching-learning situation among others.

## **7. Educational Control**

Controlling is exercised through proper technique that is the evaluation. Controlling is not similar to evaluation but it is meant to fulfill the purposes of evaluation. He also stated that in order to fulfill the purposes of evaluation, the techniques of



control are the policies, the budget, auditing, timetable, curriculum and personal record.

Educational controlling involves the human elements in relation to the management of an educational programmes. Both men and women involved in the educational programmes should have to discharge their duties efficiently and effectively by being controlled.

## **8. Educational Evaluation**

Being the last but not the least aspect of educational management, educational evaluation is an integral part of it as it determines the degree of realization of educational objectives or goals as well as the effectiveness of it; for this there must be evaluation short-term or long-term, periodic or continuous and formal or informal.

This is necessary for bringing about improvement as desired in the management of educational institutions in the light of past experiences that may be failure or success or both. It is also desirable according to him that both internal and external agencies need to be involved in evaluating the achievement and performance of the individuals concerned with management.

Various systems and subsystems should be assessed and reviewed from time to time. For this evaluation of students' achievement and teachers' performance should be done in a comprehensive and continuous way (Hagman & Schwartz, 2009).

### **2.5 Academic Performance**

Academic performance is the scholastic standing of a student at a given moment. This scholastic standing could be explained in terms of the grades obtained in a course or groups of courses (Daniels & Schouten, 1970). It's in line with this, this study

determined students' performance in single/groups of subjects in WASSCE in Zaria and Giwa education Zones, Kaduna state. Simkins (1981) commented on this scholastic standing and argued that performance is a measure of output and that the main outputs in education are expressed in terms of learning, that is, changes in knowledge, skills and attitudes of individuals as a result of their experiences within the school system. Stan (1992) supported this argument and reported that performance is the level of attainment of a person in an examination, that is, how an individual is able to demonstrate his or her abilities in an examination.

In an attempt to ensure that their children perform better in the WASSCE Examination and gain admission in to universities of their choice, some parents and guardians have made a particular choice of the type of Secondary School they want for their children not minding the location and the cost implication of the school chosen. The importance of English language and mathematics as pre-requisite subjects to gain admission into higher institutions of learning in Nigeria and some West African Countries such as Ghana, the Gambia, Sierra Leone and Liberia (these countries have the same colonial origin and jointly established the WASSCE) has made the two subjects compulsory or mandatory to be passed at credit level by secondary school students in public examinations. A credit level in both subjects has been used as one of the criteria for measuring and establishing the brilliancy of a particular candidate in the Nigerian surrounding. Of course, the poor performance of Secondary School students in English language and mathematics in WASSCE had made it difficult for majority of students to gain admission into higher Institutions of learning in recent times. According to Obemeata (1995), as cited by Adepaju (2002) found that about 93% of Secondary School leave in any given year fail to qualify for university education. He also reported

that 9.0% had credit in English language in 1980, 7.7% in 1988 and 6.3% in 1990. In respect to mathematics, the increasing falling in students' academic performance was more pronounced.

The pattern of grading students in the West African Examination Council (WASSCE) Examination in Nigeria is that the distinction grades are being represented by A1 to B3. The credit grade is represented by C4 to C6. The ordinary pass grades are represented by D7 and E8 while the failure grades are represented by F9 (Kaduna State Ministry of Education, 1997; WASSCE, 2006). It needs to be mentioned however, that the distinction and credit grades are the only requisite grades for admissions into Nigerian universities and candidates must have at least credits in five subjects including English Language in order to qualify for admission (JAMB, 2007). Adeyegbe (2002) found that there was a decline in students' performance in SSCE conducted by West African Examination Council (WACE). And that in topic where teachers found difficult to teach, students tend to perform below expectation.

Onipede (2006) also reported that students performed below expectation in (WASSCE) conducted by West African Examination Council in many subject areas especially in English Language and Mathematics. As can be seen by the result analyzed by the above researcher whereby the student performed poorly in almost every subjects which include English Language which could be because of the effect of mother tongue, while in Mathematics and other science subjects, the students viewed them as difficult subjects, because of that, they failed the courses, in art and social sciences. In vocational and technical subjects, the provision of equipment and materials is not adequate, which makes teaching and learning difficult and makes the students fail in their final year

examination. In Zaria and Giwa Education Zones, improving in the performance level of students in (WASSCE) depends on the subjects and school or the school type. Wonkowski (1973) for instance, reported that academic failure seems to be associated with the lack of personal confidence, emotional instability and temperamental tendency towards extraversion. Supporting this fact, Al-Methen and Wilkinson (1992) reported that failure in students' performance is due to the lack of confidence in the knowledge they possess which in turn could affect their level of activity in the classroom. They argued that students' academic problems arise from personal inadequacies such as low ability, negative self-concept, anxiety, maladjustment, environmental influences such as poor classroom conditions, curricular inadequacies, peer groups and lack of home support. Researchers have given other reasons why most candidates find it difficult to pass their examinations (Oke, 1992; Ijaiya, 2000; Oderinde, 2003; Adeyemi, 2010). Among these reasons include have to repeat classes, lack of adequate knowledge in their various subjects, inadequacy of professionally qualified teachers in schools and insufficient facilities. These reasons might perhaps have led to the remarks made by Odesola, (2001); Adelugba, (2003); Asaolu, (2003) that most of the Nigerian states recorded an unprecedented failure in core subjects in the year 2000 West African Council Examinations (WAEC).

The results released by (WACE) in 2011 revealed that there was mass failure; only 31% passed with five credits including English language and Mathematics (Uwadiae, 2011) in 2012 one hundred and twenty-two (122,000) thousand Nigerian students that sat for the examination did not have their result, as their results have been withheld. Also in 2013, only 639, 760, passed with five credits including English and Mathematics while in 2014, one million students failed WASSCE examination, only 31% passed with five

credits including English, Mathematics, while 81,573 results were withheld. The recent results released by WAEC in May/June 2015 revealed that out of 1,593,442 who sat for the examinations, only 616,370 students came out with credits in five subjects and above, including English language and Mathematics.

### **2.5.1 Factors Responsible for Poor Academic Performance in Public Senior Secondary Schools in Nigeria**

Various studies conducted on effect of school environment on academic performance attest to the fact that school environment that is not conducive for learning may lead to under performance (Chimombe, 2011). Provision of adequate learning facilities at all levels including equipment and human resources enhances the quality and relevance of imparted skills of learners (Lumuli, 2009). Learning involves interaction of students with the environment. Teaching and learning resources include classrooms, laboratories, libraries, playing fields, textbooks among others. Indeed, physical resources go a long way in increasing Conducive environment that promote effective and efficient teaching and learning. It is with this in mind that the Draft Report on cost and Financing of Education in Kenya identifies textbook ratio and school facilities as some yardsticks to be used to gauge the quality of secondary school education (Ro, 1995). Juma (2011) links performance in examinations to State of teaching and learning resources in schools. He notes that students from poor backgrounds perform poorly in the examinations because the poor are often in areas where schools are seriously deprived of vital facilities. An attitude of helplessness may be inculcated early into children making them feel that being in school is a waste of time.

Physical materials in terms of adequacy and quality have been noted to have a great impact on performance of students in the examination (Husen, et al., (1978). A school

that has adequate instructional materials is likely to post better quality grades than a school which has poor quality physical resources. A school with inadequate classrooms will be forced to accommodate more students than recommended. This will exert a lot of pressure on resources such as teachers who may compromise their methodology as part of adaptive mechanism (Nafukho, 1991; Pscharapolous & Woodhall, 1995). The lack of basic facilities like laboratories has compromised the teaching of Science Subjects. Topics that are meant to be taught practically are taught theoretically as part of adaptive mechanism by teachers due to inadequate resources to enable effective teaching of the same. This ends up affecting negatively students' performance and reducing their competitiveness for opportunities whose placement is pegged on performance in such subjects.

Financial Resources and Academic performance: - Financial resource is a key element among educational resources; Financial resources are used for acquisition of other resource such as physical facilities, textbooks and human resources (Lumuli,2009). Availability or adequacy of financial resources will enable a school acquire other facilities. Despite the importance of finances in promoting acquisition of other resources, draft Report (Rok, 1995) note that schools have a narrow revenue base which consist of mainly school fees. School fees make up over 90% of total revenue collected by the schools (Selina, 2012). Even if government has been making contribution in form of subsidized Secondary Education (SSE), the contribution may be inadequate unless well managed. Collection of fees still varies from school to school. Where collections are inadequate, the state of infrastructure will be poorly developed compromising content delivery. This ends up putting a lot of strain on existing resources which end up compromising academic performance of the school (Eshiwani, 1993).

Various schools have adopted various techniques of financial management among them, investing in Income Generating Activities(IGAs) to supplement school budgets. Funds earned through IGAs are used to put up school infrastructure or acquisition of stationery to support learning activity (Kiveu & Mayo, 2009). Study done by Selina (2012) on the impact of IGAs on students Retention Rates in Public Senior Secondary Schools in Vihiga District indicate that schools that was used in promotion of motivational programmes for teachers. Such schools ended up posting better performance in examination compared to schools that did not have such arrangement.

### **2.5.2 Meaning of Analysis**

Analysis is the process of breaking a complex topic or substance into parts in order to gain a better understanding of it. The technique has been applied in the study of mathematics and logic since Aristotle (384 – 322 B.C). Though analysis is a formal concept that is a relatively recent development. The word comes from the Ancient Greek. (Analysis, “a breaking up”, from an. “up throughout” and lysis “a loosening”). Analysis as a process is a method of studying the nature of something or of determining its essential features and their relations. It is also a way of separating any material or abstract entity into its constituent elements. For instance, analysis in mathematics is described as

- (1) An investigation based on the properties of numbers.
- (2) The discussion of a problem by algebra as opposed to geometry.
- (3) The branch of mathematics consisting of calculus and its higher developments.
- (4) A system of calculation, as combinational analysis or vector analysis.

And also in chemistry as:

- a. Intentionally produced decomposition or separation of materials into their ingredients or elements, as to find their kind or quantity.
- b. The ascertainment of the kind or amount of one or more of the constituents of materials, whether obtained in separate form or not.

## **2.6 Theoretical Framework of Study**

Some theories were chosen to serve as the framework of this study, they are:

1. Cognitive learning theory by Max Wertheimer (1942)
  2. Learning environmental theory by Pelton (1981) & Garbasino (1987)
  3. Kurt Lewin's field theory by Lewin (1946)
1. Cognitive Learning theory by Max Wertheimer (1942): Cognitive learning theory is a conceptual framework that describes how information is absorbed, processed, and retained during learning. It was propounded in Berlin by a German psychologist Max Wertheimer in 1942. Cognitive learning theory holds that humans generate knowledge and meaning through sequential development of an individual's cognitive abilities, such as the mental processes of recognition, recollection, analysis, reflection, application, creation, understanding and evaluation. The cognitivists' learning of learning of techniques, procedures, organization and structure to develop internal cognitive structure that strengthens synapses in the brain (Wolf, 2010). When we say the word "learn" we usually mean "to think using the brain" this basic concept of learning is the main viewpoint in the cognitive learning theory. The theory as they are influence by both intrinsic and extrinsic factors, which eventually bring about earning in an individual. The cognitivists posit that the memory system is an active organized processor of information. They view learning as an internal



mental process (including insight) information processing, memory and reception. Learning disabilities are caused by neurological dysfunction and that they are casually correlated with basic psychological process. It is also believed that learning disabilities is as a result of minimum brain destruction and dysfunction in the central nervous system owing to neurological developmental lag resulting in clumsiness, restlessness and in attention. And learning is a process by which neurons joined by developing the synapses between them so a relative influence of brain damage account for ineffective cognitive process which manifests during learning. With reference to brain damage, and neurological developmental lag, it can be deduced that they are casually correlated with basic psychological process. The idea behind this theory therefore is that a child who suffered from ineffective cognitive process does not perform well academically.

2. Learning Environmental theory by Pelton (1981) & Garbasino (1987): This theory focus is on potentially dominant role of certain societal conditions and values. It takes a look at a broader structural and cultural abuse as emanating from lack of motivation or skill on the part of the parents. The environment encompasses all things around the individual that has influence or offer an impression. Children are greatly inspired and motivated as well as deterred by the environment around them. Learning theory is the understanding that the child's environment shapes learning and behavior and it is also thought that learning and behavior are reactions to the environment. This perspective encourages families, schools, and educators to understand that the child develops and learns new skills in reaction to items she finds around her. Environment according to Julian B. Rotter in his social learning concept focused

on the idea that personality represents an interaction of individual's experience play a role because the individual and her reaction encourage learning. The relative influence of environment on behavior accounts for many learning disabilities in an individual's life that is, a child who lives in an environment which is not psychologically stimulating may manifest signs of maladjustment and perceptual problem. In all these, it can be concluded that unfavorable nature of some environments such as illiterate home background, schools where there are poor facilities and child abuse among others influence children academic performance which may result in poor academic performance in school.

3. Kurt Lewin's Field theory by Lewin (1946): This theory was propounded by Lewin in 1946. The main point is that learning is a function of the persons and his environments. This formula provides the foundation for learners' theoretical construct of life space (LSP), which refers to the sum of all the personal and environmental factors may include illiterate home background and hereditary factors such which lead to some abnormal brain structure or functioning among others. Environmental factors may include poor and deprived environment, lack of psychological stimulation, malnutrition, illiterate home background and school where there are poor library facilities among others.

The relative influence of environment on learning accounts for many causes of learning disabilities in an individual's life. That is a child who lives in an environment which is not psychologically stimulating may manifest signs of learning disabilities. This goes to confirm Isange Dighi (2007) that learning disabilities are caused by differences in brain structure and functioning and this differences which are in themselves linked with certain genetic and environmental factors as the factors could have brain damage arising

from such factors as maternal poor nutrition, illness, use of alcohol or any material condition that can lead to reduced birth weight of the child.

The brain is the most incredible network of information processing and interpretation in the body as we learn, so any little alteration by way of accident, injury or illness in infancy or early childhood may negatively interfere with learning. With reference to environmental factor, it can be deduced that individual living in an environment devoid of adequate language and sensory stimulation could have learning difficulties which manifest during class activities.

## **2.7 Students' Performance in WASSCE in Mathematics**

Mathematics as a subject is the most difficult and feared subject in Secondary Schools, especially among the Arts, social sciences, languages, vocational and technical subject oriented students. It is very common to find students of secondary schools dodging or jumping out of class through window when the mathematics teacher comes into the classroom. They have the enormous belief that it is a difficult subject coupled with these are the inability of most schools to use qualified mathematics teachers who lack the teaching techniques apart from educational qualification, lack of modern teaching methods such as problem solving technique, critical thinking method. Mathematics after English language is the most important subject which most tertiary Institutions require at least a credit in WASSCE examinations performance before gaining admission. Mathematics is an important Subjects, it is one of the subjects taught at both the primary and secondary school levels. Mathematics assists in the development of individual's intellectual abilities. Clement (1982) classified errors usually committed in problem solving into two types. These are semantic and syntactic errors. Semantic errors are

committed due to lack of understanding of the meaning of the given problem, while syntactic error is committed when the problem is given direct translation as it Structure or constructed. For a word problem to be meaningfully and conceptually interpreted there should be cognitive interaction with the concepts featuring in the problem. To enhance correct transformation of problem statements into equivalent algebraic equations, for example, the problem solver needs to be equipped with adequate knowledge of mathematical words, symbols, notations, models and so on. Mathematics is a fundamental science that is necessary for understanding of most other in education. He stressed further that, it is glaring that no other subject forms such a strong force among the various branches of science. Head of the national office of WASSCE, Mr. Olutise Isaac Adenipekun (2015) revealed that 33.51% of candidate that sat for Nov/Dec obtained six credits while 47.88% obtained five credits. He did not say if mathematics and English language were among the subjects.

The rate of poor performance of students in Nigeria had resulted to economic and social wastage and this has become a great concern to all stakeholders in education, for instance, in 2008, 25.94% of the students that sat for the examination had pass at credit level in math and English language. Also in 2009, it was another year of poor result across all states of the federation. The result of mathematics released by WASSCE examination from 2004 – 2007 was terrible, this is because majority of the students performed very poor as indicated by the examination body, as follows in 2004 only 33.97% got credit, in 2005 38.20%, 2006, 41.12% and in 2007, 46.7% have credit.

Mathematics is also a hindrance to the progress of many students, out of all the subjects in the school curriculum. It is mathematics that records the most woeful and heart

rending results in publicly conducted examinations. This disappointing poor performance of students in mathematics year – in – year – out has been a constant source of concern, worry and anxiety to all stakeholders in the educational sector,(Governments, Educationist, Proprietors, Principals, Teachers,and Guardiansamong others.). However, it is the failure rate that leads to the research on the analysis of students’ performance in WASSCE (2011 – 2015)in Public Senior Secondary Schools examinations in Zaria and Giwa Education Zones Kaduna State.

Mathematic is a compulsory subject that students must offer in Senior Secondary school because of their status not minding whether such students’are in Science, commercial arts, or social science class. According to National Policy on Education 4<sup>th</sup> Edition, (2004) there are core subjects, as well as electives, that students must offer. They are English language, French, Mathematics, language of environment (Yoruba, Hausa andIgbo), integrated science, social studies and citizenship education, introductory technology, chemistry, physic or biology, history or geography and agriculture or vocational subject. There are also some elective from which students have to offer which includes economics, government, commerce and heath science.

The Student’s anticipated career will determine which of the electives to offer. These Subjects are; Mathematics, English Language, Biology, one Nigeria Language and Economics. In addition, students are expected to register for three or four additional Subjects making a total of eight or nine subjects. To further their studies in institutions of higher learning, especially in university, students, are expected to have credit pass in five subjects, including Mathematics and English Language. Credit pass in Mathematics

is also required for Students offering Science and Social Science Courses. This makes Mathematics one of the essential subjects for students' advancement.

Mathematics is very significance because its usefulness cuts across all spheres of life such as computer processing, commerce, engineering and music.

## **2.8 Students' Performance in WASSCE in English Language**

English Language is the core of the education curriculum at least for now. At all levels of educational system, it occupies a prestigious position both as a discipline and as a medium of instruction. On either side, a speaker of the language is rated as competent or otherwise from the way he performs. Performance and competence in English are complementary issues. The two however differ, Williams (1990) stated that performance is elicited and observed, while competence can only be referred to as underlying ability. He also illustrates that competence has to do with the strength or the ability to perform. This work referred good performance as being competent.

In all tertiary institutions and even for employment, it is expected that candidates must have at least credits before they can be considered for admission into any course of career. So many reasons had been given for the poor WASSCE examinations performance in English language. According to Onipede (2003), Poor academic Performance is described as any performance that falls below a desired standard. He reported that Students performed below expectation in West African Examination Council (WASSCE) Examinations in many subject especially in English language.

Examiners, Educationists and other stakeholders have continuously rated students in Nigeria as incompetent in English Language. Many critiques felt that the factors

impeding the good performance in English include lack of language skills and the numerous mechanical errors in the examination. Others feel that it is the inadequacy of Competent teachers, lack of proper incentives of teachers, poor remuneration of teachers, poor preparation of students for the examinations and the automatic promotion of students' policy that hamper the high performance of the students. Some researchers have agreed with these causes and suggested among others, recruitment of competent English teachers, good welfare package for teachers and purchase of relevant textbooks.

## **2.9 Students' Performance in WASSCE in Science Subjects**

The Federal Government of Nigeria has taken good measures in the previous years to improve and promote the study of science and technology in the country. This is evident in her effort in establishing more special Science Secondary Schools in the State which are also found in Zaria and Giwa education Zones to facilitate the teaching and learning of sciences. The teaching of the three basic Science Subjects in Secondary Schools is in the line with National Policy in education. One of the policy statements of the National Policy on education, 39.1 stipulated that "*a great proportion of education expenditure will be devoted to science and technology*" (NPE revised, 1998) if this policy were properly implemented, there should be enough of learning resources for the teaching and learning of Science Subjects in most all the Secondary schools in the country.

1. In some Schools subjects that are practical oriented are taught inadequately. Some teachers revealed in some Secondary Schools that, some topics that need practical, do not have facilities for that and it is a serious problem. That they only teach student theory but not practical. That in some school, there are no laboratories even though there are equipment but there is no place to fix them "*In GSS Romi, a science teacher said*" very few government schools can boast of having science

laboratories. He said in their school, they have only one multipurpose lab where all the science subjects are handled. That the school has above 300 science students taking four and five science subjects. When one considered that WASSCE or NECO always involved practical for science subjects, such as Biology, Chemistry, Physics, Agriculture, Home economics among others, one will see reasons why failure is inevitable except through some improvised means. And when secondary leavers gain admission into higher level of education, it is assumed that they are familiar with the basic science procedure and methods only obtain through practice.

According to Aderounmu, Aworanti & Kasah (2007):

“the impact of the supply of learning resources in science and technology education on the trend of students’ performance at the National Technical Certificate (NTC)/National Business Certificate (NBC) examination in the five (5) government technical colleges of Oyo state from 2000 – 2005 and found that learning resources revealed a significant effect in students’ performance effect in students’ performance”.

Ivowi (2000) and Cirfat & Zumyil (2000) observed that lack of Science equipment and laboratories are major causes of poor performance in Science Subjects in Secondary Schools in Nigeria.

Science is very important to the development of any nation that is why every nation must take it very serious in all institutions of learning. Many of the developed nations were able to achieve so much in science and technology because of Science. Launching of sputnik by the Russian government in October, 14<sup>th</sup> 1957 would not have been possible if not for the position the placed physics in Science subjects. Science subjects or education comprises three Subjects namely biology, chemistry and physics



which are combined with education and over the year there has been low enrolment of these courses in our institutions as identified. Aina, J.K security challenges in Nigeria. Causes of this low enrolment include society disdain, mockery of teacher and prestige of teachers. Interestingly, as important as these courses are, students' performance has not been encouraging in them and this is worrisome and called for investigation.

Science Subjects or courses are very important to the development of any nation in many areas. A graduate of physics can be self-employed as opined by Tunde, Akintoye & Adeyemo (2016). Many of the physics graduates have some knowledge of electronics that is enough for them to be able to have a little period of training as apprentices and then stand alone as electronic technician. Without science education information and communication technology would be impossible. Also Engineering, Medicine, Architecture, Computer experts among others will not be possible if there is no one to teach the students the core subjects needed for these courses.

Biology is also very important to any growing economy like Nigeria. Students of Chemistry Department in many institutions are taught how to make dye and chalk, which improve their performances in so many ways. Lamenting on students' poor performance in physics, chemistry and biology. Dan Azumi (1998), reiterated that one of the most repeatedly mentioned problems causing poor performance in these subjects since introduction of WASSCE is lack of equipment and materials to conduct practical in a multivariate study Lawal (2006) reported no significant correlation between adequacy of laboratory equipment and academic achievement of students in sciences in WASSCE in his study on *"availability and impact of material resources on achievement in physics, chemistry and biology in selected secondary schools in Katsina metropolis"* in his study on communicating physics through teaching materials in

Akwa-Ibom state government science colleges. Onwioduokit (1998) revealed that they exist in a positive relationship between the provision of materials and Secondary students' performance in physics, Chemistry and Biology.

The relationship between availability of qualified teachers and Students academic achievement in Secondary School, Science Subjects are further reported that students' performance was taken as an index of teacher effectiveness and efficiency.

On teacher quantity Fabunmi, Brai – Abu & Adeniji (2007) noted that schools with larger size and high teacher – Students ratio recorded poor performance in science subjects whereas schools with small size and lower teacher – student ratio had better academic achievement. He also observed that schools with shortage of Science teachers performed far below expectation in WASSCE examination.

From the above discussion, there is a strong indication that academic achievements of Science Students are correlated to learning resources available at their disposal in the environment of instruction.

Eloebhose & Imhanlahimi (2000), said that learning resources are those devices, like human and material employed during the teaching/learning process to avoid a situation whereby the predetermined specific learning objectives of the lesson are not achieved. The influence of those resources on students' academic achievement cannot be overemphasized, therefore, a careful and cautious has been accorded to it, if we want to build and sustain Scientists of the future in Kaduna state especially Zaria and Giwa education Zones.

According to Ango (1986) laboratory work:

- i. Promotes that science is not only products or process.

- ii. Affords the learner the basic skills and scientific method of problem solving.
- iii. Knowledge obtained through laboratory work makes learning permanent and promotes long term memory.
- iv. It stimulates learners' interests as they are made to personally engage in useful scientific activities and experimentation.

In a world of change where science and technology is advancing very fast, science education at all levels in Nigeria is almost at a deplorable state, especially in Kaduna state. This is evidenced by the falling in Science Subjects learning outcome characterized by students' poor performance (Okafor, 2000) and inadequate supply of skilled human and material resources (Agusiobo, 1998), in most types of secondary schools Eule & Chukwu (2000) were of the view that the global change in science curriculum due to knowledge explosion and technological development demands for qualitative science teaching. This changes call for the provision of standard resources at the secondary school, where the foundation of science learning is laid.

### **2.9.1 Factors Affecting Improvisation of Instructional Materials in the Learning Process**

Teachers are encouraged to improvise where the school cannot provide all the instructional materials, but Balogun (2002) identified two main constraints militating against the successful improvisation of science equipment. There are technical and the human factors, while the technical factors relate to the question of degree of accuracy and precision that is possible with the improvised equipment, the human factor relates to the teachers' skill in developing the resources while providing the appropriate learning materials to the learners. Maduabunmi (2003) reported lack of adequate professional training as a major problem militating against the effective use of local

resources for science teaching. Oyediran (in Isola,2010) then stressed the need for a definite well planned training programmed of improvisation for teachers. He suggested regular meaningful workshop on improvisation technique for Science teachers to improve and update their competence.

## **2.10 Students' Performance in WASSCE in Arts and Social Science Subjects**

In Nigeria educational system arts and social science is a group comprising of subjects like economics, geography, government, Islamic religion knowledge and Christian religion knowledge. Frequent failure in WASSCE performances of public Secondary students over the years have been blamed on Students lack of interest, poor curriculum implementation, unqualified teachers and inadequate teaching and learning materials. Other reasons for mass failure in this cluster of subjects could be tied to truancy and lack of concentration in school academic activities (Wankowski, 1973; OECD, 1989; Al-Methen & Wilkinson, 1992), Wankowski, (1973) for instance, reported that academic failure seems to be associated with the lack of personal confidence, emotional instability and temperamental tendency towards extraversion. Supporting this fact, Al-Methen & Wilkinson (1992) reported that failure in students' performance in arts and social science subjects is due to the lack of confidence in the knowledge they possess which in turn could affect their level of activity in the classroom. They argued that students' academic problem arises from personal inadequacies such as low ability; negative self-concept, anxiety, maladjustment, environmental influences such as poor classroom conditions, peer groups and lack of home support.

## **2.11 Students' Performance in WASSCE in Technical and Vocational Subjects**

Vocational and technical education (VTE) has been an integral part of National Development Strategies in many societies because of its impact on productivity and economic development. Despite its contributions, the Nigeria leaders have not given this aspect of education the attention it deserves. And that is one of the reasons for the nation's underdevelopment. Victor Edike (2005) states that technical education:

“is a planned program of courses and learning experiences that begins with exploration of career options, supports basic academic and life skills, and enables achievement of high academic standards, leadership, preparation for industry defined work, and advanced and continuing education.” and vocational education and training “prepares learners for careers that are based in manual or practical activities, traditionally non – academic and totally related to a specific trade, occupation or vocation”. In other words, it is an “education designed to develop occupational skills.

The provision of vocational and technical schools has a long history. Before the industrial revolution (between 1750 and 1830) the home and the “*apprenticeship system*” were the principal sources of vocational education. But decline of handwork and specialization of occupational functions to develop institutions of vocational education (Duffy, 1967).

While technical and vocational education has continued to thrive in many societies, Nigeria has neglected this aspect of education. Consequently, the society lacks skilled Artisans. Bricklayers, carpenters, painters and auto mechanics, laboratory and pharmacy technicians, electrical/electronic technicians and skilled vocational nurses, among others.

Despite all efforts made to recognize it, little or no attention was given to it. No meaningful development was made in the area of vocational education until 1981, when national policy on education was established. Due to total neglect, Vocational education

suffered a major decline in quality, number, policy and directive in Nigeria due to the total neglect. It was after the oil boom era 1970s that it dawned on the nation that there was acute scarcity of skilled man power. Osuala (1999) emphasized that the term either technical or vocational education has no single universally accepted definition but what is common is the various definitions in its goals and objectives that remain the same. Technical education has been defined as that phase of education which seeks to help the people, students and the populace acquire specific mechanical or manipulative skills required in industrial arts or applied science.

Importance of these subjects are that it offered self-employment/entrepreneurial skills among others. Students who graduate from these subjects can be self-reliant and contributing to the economic and commercial development of the country. In support of these arguments, Onipede (2003) reported that students performed below expectation in West African Examination Council (WASSCE) in many subject areas of vocational and technical subjects, Equipment and materials is not adequately provided which make teaching and learning difficult and make the students fail in their final year examination (WASSCE) and in Nigerian language the students view it. He also argued that, students do not understand the importance of these subjects to their future and therefore lay less emphasis on these important career subjects.

The aims of vocational and technical education are:

- i. Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels;
- ii. Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development;

- iii. Give training and impart the necessary skills to individual who shall be self – reliant economically.
- iv. To give an introduction to professional studies in engineering and other technologies (FRN), 2004 (with 2005 – 2012 new edition).

Anyakoha (2000) emphasized that home economics is a unique and dynamic field of study. Its central theme is the improvement of lives of individuals and in a field of study that draws knowledge from many disciplines including science and humanities in order to fulfill its objectives. Being a vocational subject that focuses on the welfare of individuals, families and societies, home economics contributes meaningfully to the solutions of the problems of the society such as unemployment, poverty, malnutrition (Olaitan, 2000). Osuala (1992) stressed that, home economics as a vocational subject is required to equip the learner with the knowledge of skill and attitude necessary for true effective management of the home. It requires skills, wisdom, dedication, care, intelligence, unusual patience and very strong power of observation and imagination. Therefore, a student that has these qualities should study vocational/technical subjects, especially home economics.

The influence of parents in the development of students' interest in vocational/technical subjects cannot be over emphasized this is because parents seen to have much influence on children's choice of educational career. The socio – economic status of parents of a child determines the type of career one chooses to do. Some parents have biased and rigid thoughts regarding the occupational choices of a child/children. Parents forget that every type of work, once it is beneficial to the individuals and society, is worthy and noble. (Nwankwo, 1996)

The skill that teachers exhibit in teaching influences the student enrolment in vocational/technical subjects Onwuka, (1981) said that, the method of approach is very vital in any learning situation. The way the teacher presents the subject matter to the learner may make a student like or dislike a subject; Nwogwu (1989) pointed out the need for blending theoretical and practical work in teaching of subjects as to stimulate students' interest, especially on vocation/technical subjects. The single factor in teaching – learning is the teacher. No technique, no method, no device, no gadget can guarantee success, but only an effective qualified teacher can adequately execute these (Okafor, 1987). Thus, the greatest motivating device yet discovered is that highly motivated teacher of students are to be involved actively in teaching and learning process in a way of projects, field trips, directed field activities among others. Note learning and subject centered orientation should be changed to a more practical and child centered out – look.

The federal republic of Nigeria 4<sup>th</sup> edition 2004 (with 2005 – 2012 update) state that the broad goal of the secondary education shall be to prepare the individual for “*useful living within the society and higher education*” therefore, to achieve this objective, secondary school education in Nigeria has six-year duration given in two stages – three years of junior Secondary School followed by three years of Senior Secondary School. The curriculum designed for Senior Secondary school is comprehensive and broad based aimed at broadening students' knowledge and outlook. Subjects offered in senior secondary schools are in three groups – core subjects, vocational and non – vocational subjects, one of the vocational subjects is home economics.



The quality sign of potential success in students' Vocational pursuits require the Identification of the students' interest, aptitudes, abilities, values and judgments, if these will be discovered, it will require a guidance and counselor who will give the appropriate occupational information to the student with proper exposition to various opportunities available in the world of work. It is not Surprising that students are not interested in Vocational/ technical Subjects. Osuala (1992) opined that, at the heart of our Society and economic problem are the children of the poor. This same attitude is shared by Students. Thus, it makes the students lack interest in the study of Vocational Subjects, particularly Home economics.

Vocational/ Technical education Subjects ought to attract many students because of its laudable importance but reverse has been the case. The reasons for this probably are due to people's perception that it does not require specialized kind of training. The students have the feeling that even if one is at home at the require skills one needs to learn how to cook, farm, among others and hoe these can be acquired without formal training. People are ignorant of the importance of the Vocational Subjects which could help male and female students receive formation and are able to work solution to problems. Also, it will be of significance to the students to acquire skills, abilities essential for independent life meet up with personal and family needs more, especially in this economic difficulties.

## **2.12 Challenges to Students' Performance**

Academic performance does not hinge on the raw intelligence and work ethic of a student alone. Other factors can contribute to a students' level of success throughout all stages of education. Some elements have a stronger effect than others. Being aware of

what factors may have a negative impact on academic success may better prepare parents teachers and students to deal with them.

1. **Socioeconomic Status:** According to the American Psychological Association, students whose families are of low socioeconomic status progress more slowly academically than their wealthier peers. Wealth and status are an umbrella for many issues that affect performance, including suffering chronic stress, having little to no homework help available at home, and having obligations around the house or at a part-time job that may curtail study time. Literacy and development issues can begin to affect children before they are even of school age, putting them at an immediate disadvantage.
2. **Parents' Education:** The amount and quality of homework and study assistance available at home can impact a students' performance. But that is not the only way in which the level of education achieved by a students' parent or guardian can limit or improve the students' ability to achieve. Parents are 'Expectancy socializers', according to researchers at Wayne State University. If they set the bar of success high for their children and systematically encourage them, it's more likely that their children will perform well at school. And those expectations for success are connected to the amount of education a parent has received.
3. **Class Size:** The students-per-teacher ratio of a school is a statistic that interests many parents and is often used as a recruited tool. But how much does class size really matter when it comes to student performance, the Centre for public education found that smaller class sizes had the greatest benefits for school students, but that the benefits hinge on the quality of the teachers. The largest achievement gains were observed in minority students and those of low

socioeconomic status, providing a concrete strategy to combat the challenges faced by these populations. And the effects are lasting. Students who learned in less populated classrooms in elementary school scored higher on tests scored higher than their peers.

4. **Parents' Occupation:** Home background of students has a very significant role to play in their educational career in the schools. It is clear that many parents are farmers, while some are teachers. For the fact that many are farmers or junior workers, they leave their homes very early and come back at dusk or late and very tired to inquire about their children's academics or social well-being.

This always continues and forms the life pattern of such family. Home environment in no small measure influences the child or students' performance, hence this progress or retrogress in life originate from there and how well he is able to manipulate it. Samuel (2013) observed that the role of the family in students' socialization is a determining factor in the child's environment. He also said that socialization experience and family motivations contribute to the child's academic success in school, stressing that the parent's occupation, social status and lifestyle of the parents determine the child's success and response to education.

According to Ukanu (1999) note that, to a large extent parents' belief, their philosophies of life, social status and political power and prestige all act as sociological factors that always influence the students' academic achievement. On the other hand, some parents that are government workers are often transferred which might not warrant their stay in their former living place.

Following this, parents could take their children along with them at any time of the year and this seriously has negative impact on the students' academic performance because such immediate transfer might be at the beginning, middle or towards the end of school section. He faces a new teacher with new method of teaching. It may take such a student quite a long time to adjust fully and for this reason, the students might be affected by their parent's occupation. Nwangwu (1976) explained that some students come from homes where it is even difficult for parents to feed and clothe their children properly. In such cases, even free primary education does not guarantee their children the opportunity to complete their primary education. The parents may still not be able to provide money for books and school uniforms and these are enough reasons for students to perform poorly or even dropout from school.

5. **Inadequate Infrastructures:** Many public secondary schools especially rural areas suffer inadequate infrastructural facilities and social services. Our educational system is still plagued with serious problems of basic infrastructures. Basic infrastructures, science and technical equipment's, furniture, library are evidently inadequate in supply of these basic school necessities has received the attention of the public in recent times. Therefore, in view of Amadi (2001) noted that inadequacy of these infrastructures constitute another source of frustration and disillusionment among teachers. She further advised the industry of education and educational boards to make these materials available to schools.

Samuel (2013) stressed that since education is generally accepted as the most important instrument for change that the fundamental change in the intellectual and socio-

economic outlook of any society is as a result of education has continued to be accepted very high priority in the sectoral allocation of resources.

The problem of enrollment and supply of infrastructural facility in the schools are more pronounced in our academic performance of public secondary schools and this has led Samuel (2013) to attribute this to a number of factors. In the first place, very often, some average rural community, like urban areas for further education. The implication of this is that such parents do not pay attention to the needs of our rural schools. As a result of this, rural schools are left for the lower class of the rural populace to maintain. He also observed that some of these schools were built later than the urban schools. These schools are isolated in remote areas and parents from such areas find it difficult to contribute towards the maintenance of such schools, and this affects their interest in education. Samuel (2013) was of the view that people in urban areas with old schools are helped by the government and other individuals in order to maintain their schools than rural people. He also stated that in most secondary schools in the state, there are not enough books except in some schools in the urban areas. When books are not in the library, it becomes very difficult for poor parents to afford money to buy textbooks for their children in the schools. Therefore, this problem of inadequate textbooks is one of the challenges to student's performance.

### **2.13 Ways to Manage Students' Performance**

- i. Taking measures to improve academic performance and outcomes starts with improving the behavior of students in the classroom. Although it can seem challenging, teachers play a large role in creating an environment that encourages learning, improve student behavior and create better academic

performance at every level of education. Teachers can accomplish amazing feats when the appropriate strategies are implemented to improve the behavior in the classroom.

- ii. Good teachers are skilled not only in instructional methods but also in evaluation and assessment practices that allow them to gauge individual students' needs. Observations in Guinea and India found that teachers trained poorly in evaluation techniques and the reality is far from the continuous procedures recommended by official programmes (Carron & Chau, 1996). Many teachers and education systems continue to rely on almost exclusively on traditional paper-and-pencil tests of factual knowledge that tend to promote rote memorization rather than higher order thinking skills (Condy, 1998). Monitoring and evaluation of learning should be a continuous process to ensure schools meet their targets. Each district should have mechanisms for monitoring on a continuous basis the performance of both teachers and students for remedial action early when needed (Kimbui, 2012).
- iii. Research around the world has shown that low expectations for student achievement permeate educational systems. Rather than setting high standards and believing students can meet them, teachers and administrators in many developing countries expect up to half the students will drop or fail. Schools committed to students, learning communicate expectation clearly give frequent and challenging assignments, monitor performance regularly, and give students the chance to participate in and take responsibility for diverse school activities (Araig & Duplessis, 1998).
- iv. According to Mobegi, Ondigi & Oburu (2010), head teachers should take-up their roles as quality assurance officers in their schools and ensure that there is

adequate departmental supervision. They should introduce staff appraisal through local designed forms to enhance standard and engage in evaluative class observation to ensure that a variety of teaching methods apart from class discussion is utilized. Head teachers should devise school income generating activities to alleviate current financial problems that result in student absenteeism, transfers, indiscipline and inadequate facilities. They should frequently invite quality assurance officers to advice on school affairs and community relations.

- v. Relationship Between Behavior and Academic Performance: The positive behavioral interventions and support program, a teaching and training organization for professional educators, cites numerous studies on its website that suggest students with poor classroom behavior often struggle with academic skills.

Behavior academic outcomes refer to the changes that students' actions can have on the ability to maintain good performance in the classroom. As behavior academic outcomes relate to negative situations and poor action by students, the classroom environment becomes less positive and teachers can struggle to provide the best for education to the entire class. Positive changes to the behavior of students can improve the academic outcomes at any grade level.

- vi. Offering Rewards: When it comes to motivational strategies that can help students maintain better behavior, offering rewards is a useful tool. According to successful school organization, teachers can impact student motivation and make improvements to the situation.

By implementing a classroom management rewards system, teachers better control problem students' behavior. Although a classroom management rewards system might not work for every situation, it is an effective tool to help motivate students to work on achievement and better actions during class.

- vii. Focus on Achievement: Setting high standards of education and achievement in the classroom is a simple strategy that helps students stay engaged in classroom material. A 2010 report by Center for Comprehensive School Reform and Improvement (CCSRI) looks at strategies for improving student behavior. The report titled using positive students' engagement to increase student Achievement, suggests that creating a class culture of achievement engages students in the process of gaining knowledge and understanding. Focusing on the achievement of students in the classroom will require a comprehensive strategy of setting high educational standards, challenging students to ask questions and making adjustments to meet the need of every student to improve student achievement. Behavioral problems within the classroom can seem distracting at first, but classroom management rewards that are combined with expectations can make students interested in the material.

Expecting students to succeed, asking questions and getting involved in the curriculum can naturally motivate each student behavioral challenges require supports encouragement and the belief that students can achieve high standards to overcome the challenges and distractions.

- viii. Provide Hands-on Assignments: According to CCSRI, incorporating several learning styles into the course work will make it easier for students to remain engaged. Each student has a different learning style and traditional instruction



might not engage every student. Providing hands-on learning options and assignments will give students something different and encourage movement that can help reduce behavioral problems related to boredom, attention disorders and similar situation. Differentiating the assignments is a simple way to gain students attention and keep it focus on the classroom. Behavioral outcomes can change when students; become motivated to participate and learn.

- ix. Offer Support and Belief in the Students: Believing in the students and offering support throughout the school year can help improve their achievement levels. When students are misbehaving and acting as a distraction in the classroom, it can relate to the lack of support and belief in their abilities. According to CCSRI, studies have shown that students are more likely to succeed academically when they feel the teachers are supportive, care about student's success and honestly assess their weaknesses and strengths. When the students are getting honest responses and help to improve their weak areas, it is easier to maintain motivation.

Improving the behavior of students in the classroom is part of a teacher's job. By taking measures to support students offering different teaching strategies and focusing on rigorous educational standards, teachers are keeping the class motivated and encouraging better performance.

- x. Focused Curriculum: A focused curriculum for students will help improve student's achievement. This strategy means focusing in the specific academic needs of each student. Courses that follow a focused agenda will provide students with the ability to achieve in a particular subject matter. This also allows the schools to have higher standards in each focused area of academics.

- xi. **Strategic Tutoring:** Strategic tutoring improves students' achievement. This means focusing on a particular element of the subject. For instance, a tutor working with a student who struggles with reading may focus on comprehension, definitions, motivation or sounding out words. If the root of the problem with academics gets addressed through tutoring this should improve achievement in the subject.
- xii. **Student Engagement:** Positive engagement may help students achieve in school. Interactive lessons that foster engagement in classes will help students become motivated, according to education. If students feel that their academic success helps a team, this provides an incentive to do well in school. Fostering an environment that encourages students supporting one another may help improve overall student achievement.
- xiii. **Motivated Teachers:** Hiring teachers that show passion for the subject they teach may help encourage student achievement. Teachers should adapt to each student for the best possible learning experience. The culture that the teacher creates in the classroom may directly result in students' achievement. Education.com suggests that teachers create a supportive environment where learning becomes fun. Questions and discussion should become part of the learning environment so that students do not shy away from engaging.

#### **2.14 Empirical Studies**

The issues raised here are works done by other scholars which are related to the title of this study.

A study conducted by Alawu, Nosiri & Ladan (2013), title a comparison of student's performance in chemistry in both private and public selected Secondary schools in the

Kaduna South Local Government Area, Nigeria. The objectives of the study include:examine the influence of both public and private Secondary Schools on the academic performance of students in Chemistry, identify the performance of both private and Public Senior Secondary Schools in the subjects. In this study, descriptive Survey research design was chosen because large and small population can be studied. It is done by selecting and studying samples chosen from the population chosen to discover as with this present study the relative performance of selected private and public schools in Kaduna South Local Government Area.Sample of study offering Chemistry was randomly selected from each of the school representing the total population of students offering Chemistry. The study involved 67 students with 19 having come in from private (Danbo International) School and 48 students from public (Command Secondary) schools. The study examined the influence of both public and private secondary schools on the academic performance of students in chemistry and more so,compares their performance in the subjects (Chemistry). The private school used in the study was Danbo International School. While the public school employed wascommand secondary school. A sample of students offering chemistry was randomly selected from each of the schools representing the total population of students offering chemistry. The study involved 67 students with 19 having come in from private (Danbo International School). Scores from the students West AfricanExamination Council (WASSCE) result were obtained from respective schools and used for analysis. The data collected were subjected to student's Kruskal-Wallis statistical analysis at 0.05 significant levels, the result of the study reveals that student in Danbo international school performed relatively better than their counterpart in public (command secondary school). Recommendation from the study was that subjects (science) should be thought with relevant instructional materials in primary schools in order to prepare the pupils for

the learning task in secondary schools. Inspectors of education and proprietors should ensure that teachers use instructional materials to teach science subjects. This study contributed to the research in terms of in-depth thinking and measures to take in the data collection. Some major findings of this research showed that; with increasing number of student's enrolment in private school(Danbo International school), the less performance and the more it tends towards average scores of between (C4- C6 and passes or failures (F), with Sizeable example 52-55 students as observed in Chemistry here, the more the percentage performance tends towards range between A1-B3 and the more the enrolment, the less the performance, student's performance in Command Secondary School from these findings showed increased percentage in the range between C4-C6 than between A1-B3.the finding seem to discredit, to some extent the standard of education in the public schools since their product could not compete favorably with the products of the private school, with this findings Robert, (2009) in his critiques says that teachers teach in private schools, find administrative side of the job confining and time consuming. Afolabi, (2005), states that private schools spend substantial amount of money to provide instructional materials for teaching and learning process and that schools even take their children out on field trips, excursions and so on of which are absent in most public schools.

In another study by Adeyemi, (2010) in his work "a comparative study of students' academic performance in public examinations in secondary schools in Ondo and Ekiti States, Nigeria with objectives as follows; ascertain the performance level of students in Ondo and Ekiti States, Nigeria in Senior secondary certificate (SSCE) examination, identify the performance level of students in Ondo and Ekiti States, Nigeria in the Senior secondary Certificate (SSC) examinations, examine significant relationship

between school location and students' academic performance in the senior secondary certificate (SSC) examinations in Ondo and Ekiti States, Nigeria, identify significant relationship between schools location and students' academic performance in the Ondo and Ekiti States, Nigeria, identify any significance difference in the performance of students in Junior secondary certificate (JSC) examinations between Ondo and Ekiti States, Nigeria, investigated Students' academic Performance in public examinations in Secondary Schools in Ondo and Ekiti States, Nigeria. The instrument used to collect data for the study was an inventory while the data collected was analysed using percentages, chi-square statistics and then Kruskal-Wallis. It was found that the performance of student in the junior Secondary certificate (JSC) and the Senior Secondary Certificate (SSC) examinations was low. Based on this, it was recommended that the educational system needs to be revamped and made result oriented in the two States. The teaching and learning processes in all schools in the two states should be re-examined with the aim of improving the quality of performance of students in public Secondary School examinations. The study population comprised all the 281 Secondary schools in Ondo state, Nigeria and the 171 Secondary schools in Ekiti State, Nigeria. Out of this population, a sample of 240 Secondary schools in Ondo state and 146 Secondary schools in Ekiti State was taken. The findings revealed that the performance of students in junior Secondary certificate (JSC) and senior secondary certificate (SSC) examinations was low. The findings were in consonance with the findings made in earlier studies (Odesola, 2001, Adeboyeje, 2003; Adeniji, 2003). There was no significant difference between the performance of students in Ondo State and the performance in Ekiti State, Nigeria in the JSC examinations. However, in the SSC examinations, Students of Ondo State outperformed students of Ekiti State. Although, the performance level of students in the examinations was low in both States, the

performance in the JSC examinations was better than performance at the SSC examinations.

The sample accounted for 85% of the study population in each of the two states. Out of the 51,380 students who registered for the junior or secondary certificate (JSC) examination in 2009 in Ondo state, Nigeria. 20,160 students obtained credit and above, that is, grades A, B, and C in the examinations were selected for the study. In Ekiti state, Nigeria, out of the 40,825 students who sat for junior secondary certificate (JSC) examinations in 2009, 38,824 students obtained credit and above. That is, grades A, B, and C, in the examinations were selected for the study. In the senior secondary certificate (SSCE) out of the 30,262 students who sat for the examinations in 2009 in Ondo state, Nigeria, 16,035 students obtained credit and above, that is, grades A1, B2, B3, C4, C5 and C6 in the examinations were selected for the study. In Ekiti state, Nigeria out of the 21,634 students who sat for the examinations in 2009, 11, 570 students obtained credit and above. The method of selection was by purposive multi-stage and stratified random sampling techniques.

The data collected were analyzed with the use of percentages, chi-square test and Kruskal-Wallis. It was recommended that the educational system in the two states needs to be revamped and made result oriented. The ministries of education in the two states should also intensify more efforts in conducting regular short visit and routine inspection of schools in a bid to monitor the performance of students in their various examinations.

There are similarities between the proposed study and that of Adeyemi (2010) Titled: *“A comparative study of students’ academic performance in public examinations in secondary schools in Ondo and Ekiti states, Nigeria”* and this particular work titled *‘Analysis of students’ performance in (WASSCE) in public senior secondary school in Zaria and Giwa educational zones, Kaduna state, Nigeria (2011 – 2015)*. Investigated students’ performance in core-Subjects Examinations in Secondary Schools in Nigeria. As a descriptive research, the former used the study population which comprised of all the 281 secondary schools in Ondo state and the 171 secondary schools in Ekiti state, Nigeria. Out of this population, a sample of 240 secondary schools in Ondo state and 146 secondary schools in Ekiti state was taken. The method used for selection was by stratified random sampling techniques. The instrument used to collect data for both study was an inventory while the data collected are analyzed using percentages, chi-square and Kruskal-Wallis. The researcher concentrated on the analysis of students’ performance in West African Examination Council (WASSCE) in Public Senior Secondary Schools in Zaria and Giwa education Zones, Kaduna state, Nigerian. The researcher did not cover all the Public Senior Secondary Schools in Zaria and Giwa education Zones, samples were randomly drawn from the Public Senior Secondary Schools. For the purpose of this study, the fifteen (15) out of thirty-three(33) Senior Secondary schools from Zaria education Zone would be selected while a random sampling of five (5) out of thirteen (13) Senior Secondary schools in Giwa would be selected. Relevance of this study to my research is that it’s enable the researcher to have a clear view of the students’ performance in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa education Zones Kaduna State, Nigeria (2011-2015).

Similar study conducted by Ashikeni, T.O. (2007) within the framework of identifying the performance in SSCE in English language from 1999 – 2003 of some selected secondary school in Akwanga Area of Nasarawa state Nigeria with the following objectives; examine the problems facing the attainment of excellence and proficiency in the use of English Language in our schools, ascertain the qualified teachers in the English Language in our schools, examine students' attitude toward learning of the systems of English language that affect the performance in the language, The survey and the causal – comparative (Ex-post Facto) methods and observation techniques were used for the collection of data for the study. Questionnaire were administered to 10 English language teachers in secondary schools in Akwanga area, simple percentage was used for the analysis of the data collected for the result.

The WASSCE/SSCE English results of 2005 shows that remarkable improvement with 46.1%, 12.75% and 77.5% pass for GSS Akwanga, GSS Aloce and Mada Hills Secondary School Akwanga respectively compared to the previous performance of 2001-46.6% pass for GSS Aloce.

The performance in private schools seems to be better compare to public Schools, compare 77.5% pass for Mada Hills Secondary School Akwanga and 12.7% for GSS Aloce and 46.1 for GSS Akwanga in the 2005 SSCE. The result showed that about 90% of the teachers use teaching aids for their lesson. All of the teachers were qualified with majority (60%) as NCE holders while others held B.A. Bed Degrees. Most of the teachers were found to be committed to their job and always prepared their lesson notes and covered their syllabus before the terminal examinations. It also found that, teachers were adequately motivated since their salaries were regular.



On the part of the students, it was gathered that they were enthusiastic about English lessons and the teachers claimed that the achievement level of the students was good as 90% say that most of their students score an average of C grade in their examinations. However, it was revealed that most of the students had difficulties in reading comprehension and oral English. The language skills which were most problematic and which the students were seen to be more deficient in speaking, reading and writing. These were attributed to the fact that they do not give much attention to practicing oral English and refuse to imitate models and are adamant to changing trends in the learning of English language which emphasizes communication skills.

In public schools there were no libraries however, the private school had a library with archaic hard books displayed. The students were not exposed to a language laboratory facility to help them improve in their spoken English which posed a lot of problems to them. The achievement level in English language was found to be low, 80% of the respondents were satisfied with the performance of their students in the English language since 90% said the average score of their students in English section examination was C grade. 80% of the teachers were not satisfied with the funding motivation and training of teacher education. If there should be improvement in the performance level of the schools in Nigeria in SSCE English and for our public and private schools to be effective, they must be seen to be producing positive performance in the SSCE in English results. The method of selection was by stratified random sampling technique taking into consideration the location of the school on the basis of urban and rural location. The relevance of this study is that, it gives the researcher a clear direction, the steps to take in data collection from the various sample schools.

Another study by Ogunbanwo (2012) within the framework of Analysis of students' performance in West African Senior Certificate Examinations in Boarding and Day secondary schools in Kano Metropolis, Nigeria (2005-2011). The objectives of the study include; to assess the performance of Boarding and Day Senior Secondary School Students' West African Senior School Certificate Examination in English Language in Kano Metropolis, to examine the performance of Boarding and Day Senior Students' West African senior Secondary School Certificate Examination in Mathematics in Kano Metropolis, to determine the performance of Barding and Day senior secondary school students' West African senior school certificate Examination in the science subjects in Kano metropolis, to find out the performance of Boarding and Day senior secondary school students' West African senior school certificate Examination in Vocational and Technical studies in Kano Metropolis, to examine and ascertain the general performance of Boarding and Day senior secondary school students' in Boarding senior schools in West African senior schools certificate Examination in Kano Metropolis.

This study was designed to ascertain students' performance in (boarding and day) senior secondary schools in WASSCE in Kano Metropolis(2005-2011). The descriptive Survey research design was used for the study.

Simple percentage statistical tools for analysis of data, which include; simple percentages to obtain mean score and frequency distribution table showing the extent of degree to measure students' performance. Mean percentile score was used to calculate the relationship between the variables of the study. The study was conducted within the framework to find out the performances of students, in various core subjects, English Language, Mathematics, science subjects, Vocational and Technical subjects and

general performance in the various schools under the study. The population of the study comprised of all the twelve (12) Boarding Senior Secondary schools with 16,369 registered candidates from 2005-2011 and twenty-six (26) Day Senior Secondary school with a total of 23,969 registered candidates from 2005-2011 in Kano Metropolis, Kano State, Nigeria. These schools are Boarding and Day. There are different types of schools which cut across private, Government and Voluntary Agency schools. There are single-sex and mixed schools.

The researcher however, used the WASSCE grading of candidates who scored A1-C6 permissible credit passes in their core-subjects in senior secondary Boarding and Day schools. She also considered the senior secondary Boarding and Day schools which have presented candidates for WASSCE in ten consecutive years. The rationale for using all the Boarding schools, in the urban areas of Kano Metropolis is: To be unbiased in the selection, to maintain the idea that the main body of statistical theory is around the idea of randomness, to increase the precision of the result and finally, to access the valid level of this precision and the degree of uncertainty of the conclusion.

Some of the major findings include; boarding students performed better and higher than the Day students in English West African senior school certificate Examination, Kano Metropolis from 2005 to 2011, boarding students performed better and higher than in Mathematics West African senior school certificate Examination in Kano Metropolis from 2005 to 2011, boarding students performed much better and higher than the Day students in Science Subjects' West African Senior School certificate Examination Kano Metropolis from 2005 to 2011, boarding students performed better and higher than Day students in Vocational and Technical studies' West African Senior School Certificate Examination in Kano Metropolis from 2005 to 2011, boarding Secondary schools'

general performance level in West African Senior School Certificate Examination was greater than those of the Day Secondary Schools' performance. This research contributed to this work in term of direction, focus and confidence to the success. It has been observed that Secondary schools in Kano State do not have the required number of teachers and poor status of material facilities in schools is not connected with the fund in the system.

Tanimu (2014), in her work titled "Analysis of performance of students' in Public Senior Secondary School, Certificate Examinations (SSCE) in Zaria Education Zone, Kaduna State (2006 – 2010) with objectives as follows; examine the performance level of students in English language in SSCE in Public Senior Secondary Schools in Zaria education Zone Kaduna State, examine the performance level of students in Mathematics in SSCE in Public Senior Secondary Schools in Zaria Education Zone Kaduna State, examine the performance level of students in Science Subjects in SSCE in Public Senior Secondary Schools in Zaria Education Zone Kaduna, examine the performance level of students in Arts and Social Sciences Subjects in SSCE in Public Senior Secondary Schools in Zaria Education Zone Kaduna, examine the performance level of students in Vocational and Technical subjects in SSCE in Public Senior Secondary Schools in Zaria Education Zone Kaduna State.

The descriptive survey and the ex-post facto method were used for the data collection. The ex-post factor design is where a researcher carried out empirical inquiry but did not have direct control of the independent variables because their manifestations had already occurred. The importance of the design to the study is that it enables the researcher to undertake in-depth analysis of students' performance in SSCE conducted

by WASSCE within all the Senior Secondary schools in Zaria education Zone Kaduna state and between periods of 2006 to 2010. The study was conducted within the framework of ascertaining the performances of students, in various core-subjects, English language, mathematics, sciences, arts and social sciences, vocational and technical subjects in the various schools under the study. The population of the study comprised all the ten (10) Public Senior Secondary Schools (examination centers) within Zaria education Zone. The sample size used for the study are all the ten (10) examination centers (schools) that incorporated all the eighteen (18) Public Senior Secondary Schools with 15,161 registered students in the study area. The researcher used the stratified sampling for the study. Results of students from subject/subjects clusters of English, mathematics, arts and social sciences, vocational and technical subjects sat for SSCE were used from 2006 – 2010.

The instrument for this study was SSCE West African Examination Council scores sheets from 2006 – 2010, the results were already standardized by external examining body; SSCE (WASSCE). The instrument adopted at 0.05 alpha levels, the collected data was analysed using Kruskal –Wallis non-parametric statistics method. It's compared the means achievement of the subject/Subjects groups in the schools and various years. The mean of each subject/subjects group and years of the performance at credit, pass or fail levels are calculated and a P value is obtained to determine if significant differences exist among the subjects, schools and the five years at 0.05 alpha level of significance.

Some of the major findings from this study include; the school with the highest mean ranking performance in English was GSS Dakace and the least was Chindit Barracks, the highest mean ranking performance in Mathematics was Science School Kufena and the least was Alhudahuda College Zaria, the school with the highest mean ranking

performance in science subjects was science school Kufena and the least was Alhudahuda College Zaria, the school with the highest mean ranking performance in Arts and Social Science Subjects was Science school Kufena and the least was Alhudahuda College Zaria, the school with the highest mean ranking performance in Vocational and Technical Subjects was Science school Kufena and the least was GSS Zaria, the school with the highest mean ranking performance in Nigerian languages was Barewa College and the least was Chindit Barracks.

Examiners, educationists and other stakeholders have continuously rated students in Nigeria as incompetent in English language. Many critiques felt that the factors impeding the good performance include lack of language skills and the numerous mechanical errors in the examination. Others feel that it is the inadequacy of competent teachers, poor preparation of students for the examinations and the automatic promotion of students' policy that hamper the high performance of the students. Some researcher agreed with these causes and suggested among others, recruitment of competent English teachers, good welfare package for teachers and purchase of relevant textbooks.

### **2.15 Summary**

The good thing about this study is to analyze West African Secondary School Certificate Examination (WASSCE) on the management of public Senior Secondary school which will help to find out the performance of students in the cluster Subject/Subjects in Zaria and Giwa education Zones Kaduna state. The Senior Secondary school students must feel comfortable in their learning environment, in moderately sizeable classrooms and phase out congestion, and these facilities will

provide a good balance between school responsibilities and personal life activities. The essence of creating and running secondary schools, according to FRN 4<sup>th</sup> edition, 2004 (with 2005 – 2012 update) National Policy on education is to prepare candidates for admission into higher institution in the country. Some factors affecting performance as observed at the course of this review are health, motivation, learning problems, psychological problems, family social status, self – esteem, mental strain, social economic, healthy relationship between students and teachers, personal factors (service facilities) teachers factor (methodology) and environmental factors. Others include students' over – population, shortage of teachers, incessant strike, work – to – rule and higher teacher efficiency.

Empirical studies carried out have revealed that lack of modern equipment and laboratories and poor management of school facilities are major causes of poor performance in science subjects in secondary schools in Nigeria, the same may be true of schools in Zaria and Giwa education Zones Kaduna state, Nigeria. The problem of downward trend in academic performance of students has often been attributed to a number of factors among which are the principal's leadership style, teacher quality, home factors, government factors and non – provision of educational resources (human, material and financial, resources).

However, Public Secondary Schools in Zaria and Giwa education Zones Kaduna state do not have required number of teachers in quantity. This is evident in high student – teacher ratio in the public schools. Personal observation has also shown that material resources are in short supply in the public schools. The poor status of material facilities in the schools is not connected with the fund in the system. A close look at the schools

and what goes on there shows that nothing good may come out of most public schools as they do have facilities and adequate and appropriate human resources for West African Examination Council (WASSCE) examinations (Owoeye & Yara, 2011).



## **CHAPTER THREE RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter discusses the research design and methodology employed by the researcher in collecting data for conducting the research, where the analysis of students' performance in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria was ascertained. This chapter dealt with the following issues:

1. Research Design
2. Population of the Study.
3. Sample Size and Sampling Techniques
4. Instrumentation
5. Validity of the Study
6. Procedure for Data Collection
7. Procedure for Data Analysis.

### **3.2 Research Design**

This study was designed along the line of an ex-post facto and a descriptive survey. It was an after fact event research. Akuezuilo & Agu (2003) stated that an ex-post facto design is where a researcher carried out empirical inquiry but did not have direct control of the independent variables because their manifestations had already occurred.

It was descriptive survey in the sense that, the study examined a particular situation as it was, that is, the performance of students in examinations over a large area/period without any attempt to manipulate variables.

The significance of the design to the study is that it enables the researcher to undertake in-depth analysis of Students' Performance in WASSCE on the Management of Public

Senior Secondary Schools Zaria and Giwa Education Zones Kaduna State and between periods of (2011-2015).

### **3.3 Population of the Study**

The research was carried out in Zaria and Giwa Education Zones (Appendix 1). The research population of this study comprised (20) examination centers schools from the 46 Public Senior Secondary Schools within the two Education Zones, (15) schools from Zaria Zone out of 33 Senior Secondary schools and (5) out of 13 Senior Secondary schools in Giwa Zone.

### **3.4 Sample and Sampling Technique**

The Sample Size was obtained from the (20) examination centers (schools) that incorporated all 46 Public Senior Secondary Schools with 26,719 registered students in the study area.

According to Aderemun (1985) who stated that 30% or more should be sampled out of total population of the study. All the 20 examination centers (schools) were randomly chosen for the study. Result of students from subject/subjects cluster of English, Mathematics, Science, Arts and social sciences, Vocational and technical subjects for WASSCE were also sampled for the study. Result from 2011 to 2015 were used to establish a trend of student's year of studies for the comparison.

**Table 1: Sample of the Study in Giwa Zone**

S/N	Name of Schools	2011	2012	2013	2014	2015
1	Dr. Shehu Lawal GGSS Giwa	135	86	118	102	72
2	Government Secondary school Yakawada	150	299	260	298	270
3	Government Day Secondary school Shika	162	183	418	204	167
4	Government Day Secondary School Bomo	436	469	281	56	92
5	Government Girls Secondary School Samaru	191	172	161	237	196
<b>Total</b>		<b>1074</b>	<b>1209</b>	<b>1238</b>	<b>897</b>	<b>797</b>

Source: Giwa Education Zone, (2016)

**Table 2: Sample of the Study in Zaria Zone**

S/N	Name of Schools	2011	2012	2013	2014	2015
1	Alhuda Huda College Zaria	386	500	400	313	151
2	Barewa College	384	270	341	337	348
3	G.S.S Zaria	525	640	522	328	157
4	G.S.S Chindit Barracks	241	636	350	279	147
5	G.G.S.S Kofargayan	281	395	299	321	151
6	G.S.S Dakace	550	650	650	515	294
7	S.S.S Kuferna	192	119	221	170	215
8	G.G.S.S Dogon Bauchi	137	292	316	148	95
9	G.S.S Aminu	135	170	164	124	200
10	G.G.S.S (W.T.C) Zaria	471	547	375	293	188
11	G.C.C Zaria	100	180	159	290	130s
12	G.S.S Likoro	210	350	298	152	219
13	G.S.S Muchia	150	70	200	230	92
14	G.S.S Karau-Karau Zaria	151	90	380	400	206
15	G.S.S Tudun Saibu	469	320	280	345	120
<b>Total</b>		<b>4382</b>	<b>5229</b>	<b>4955</b>	<b>4225</b>	<b>2713</b>

Source: Zaria Education Zone, (2016)

**Table 3: Distribution of Subject/Subjects Groups**

S/N	Groups	Subjects
1	English	English
2	Mathematics	Mathematics
3	Science Subjects	Chemistry, Physics, Biology
4	Arts and Social/Science Subjects	Economics, Government, Geography, IRS, CRS, History, Literature in English, Civil Education among others.
5	Vocational and Technical Subjects	Agricultural Science, Home/Management, Commerce, T/Drawing, Fisheries among others.

### **3.5 Instrumentation**

The instrument used to collect data for this research was West African Secondary School Certificate Examinations (WASSCE) scoresheets called Gazette, it's a Secondary Data, from 2011-2015. This study is a one short-case study of the previous students' scores of subjects which were collected from the schools under study. The results were standard throughout the Country by examination body, WASSCE instrument was adopted at 0.05 alpha level of significance.

#### **3.5.1 Validity of the Study**

Validity of an instrument refers to making sure that an instrument is actually measuring what it is meant to measure. Therefore, the instrument used for the collection of data for this study was based on the researcher initiative. It was verified for content and face validity as supported by insight from the related literature reviewed on the subject in chapter one and two and however, the research instrument was validated by experts, a statistician and my two supervisors and also other lecturers in the Department of

Educational Foundation and Curriculum. Faculty of Education, Ahmadu Bello University (ABU) Zaria, Kaduna State. Nigeria. Recommendations, as regards collection of instrument, the arrangement of frequency tables and proper organization or arrangement of headings and titles and referencing were made by the Supervisors and based on the Suggestions, necessary corrections were made in the body of the work. Some items such as objectives, Research questions, basic assumptions. Some research methodology as adopted by researcher were dropped at different stages, while some were reframed as suggested by the Supervisors. Their valuable guidelines and Constructive criticism were taken into consideration in chapter one (1) as well.

### **3.6 Procedure for Data Collection**

The data were collected from the (20) examination centers in Zaria and Giwa Education Zones. The results were collected from Principals/examination officers of each school and Education Zones by presenting the introductory letter collected from Department of Educational Foundation and Curriculum. Faculty of Education, Ahmadu Bello University, Zaria. This gives way for the researcher at the Zones and schools visited to access valuable and relevant information for the research purpose only. The results were recorded accordingly in line with their scores in WASSCE. The data were collected and recorded for analysis and interpretation.

### **3.7 Procedure for Data Analysis**

Data collected was analyzed using simple percentage statistical tools for the analysis of data, which include simple percentages to obtain mean score and frequency distribution tables showing the mean achievement of the subject/subjects groups in the schools and various years. Kruskal-Wallis (Analysis of Variance), Non - Parametric (NP) statistics

method was used to compare the mean achievement of subject/subjects or estimate the relationships between the variables of the study. The credit and fail are calculated to determine if significant differences exist among the subjects and the five years at 0.05 alpha level of significance.

## **CHAPTER FOUR**

### **PRESENTATION OF DATA ANALYSIS**

#### **4.1 Introduction**

This chapter presents the data analysis of the study titled: Analysis of Students' Performance in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). Students' Performance records for English, Mathematics, Science Subjects, Arts and Social Science Subjects and Vocational subjects selected over five years' period from Public Senior Secondary Schools in Zaria and Giwa education Zones of Kaduna State were analyzed in this chapter. Percentage performances in the subjects were computed on the basis of students who passed over the total number of students that registered for the terminal examinations. Each of the subjects is computed independently for the five years' period covered by the study. The analysis is presented along the objectives and research questions with a test of the null hypothesis using Chi-Square and Kruskal-Wallis statistics. The data is ordinal data in the order of Credit pass and Failure that order hence the choice of the statistics method. Discussions were made at the end of each table.

#### **4.2 Solution to Research Questions**

The research questions formulated for the study are investigated as follows:

**Research Question one:** What is the Performance of students in mathematics in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). The performances were computed in percentages of those who passed mathematics over the total number of enrolment for the subject for the respective years. The percentages of those who passed

and those who failed are tabulated in Table 4. Figure 1 illustrated the performances by the years of enrollment.

**Table 4: Mean and Standard Deviation of Students' Performance in Mathematics on the Management of Public Senior Secondary schools in WASSCE (2011-2015)**

Year	Mean Percentage of students who passed Mathematics			Mean Percentage of students who failed Mathematics		
	Mean %	Std. Deviation	Std. Error	Mean %	Std. Deviation	Std. Error
2011	31.52	30.446	6.808	68.49	30.446	6.808
2012	38.54	28.684	6.414	61.47	28.684	6.414
2013	31.51	23.962	5.358	68.50	23.962	5.358
2014	44.14	30.145	6.741	55.87	30.145	6.741
2015	53.78	24.540	5.487	46.23	24.540	5.487
<b>Total</b>	<b>39.89</b>	<b>28.413</b>	<b>2.841</b>	<b>60.11</b>	<b>28.413</b>	<b>2.841</b>

**Fig. 1: Mean Percentage of Students' Performance in Mathematics on the Management of Public Senior Secondary schools in WASSCE 2011 - 2015**

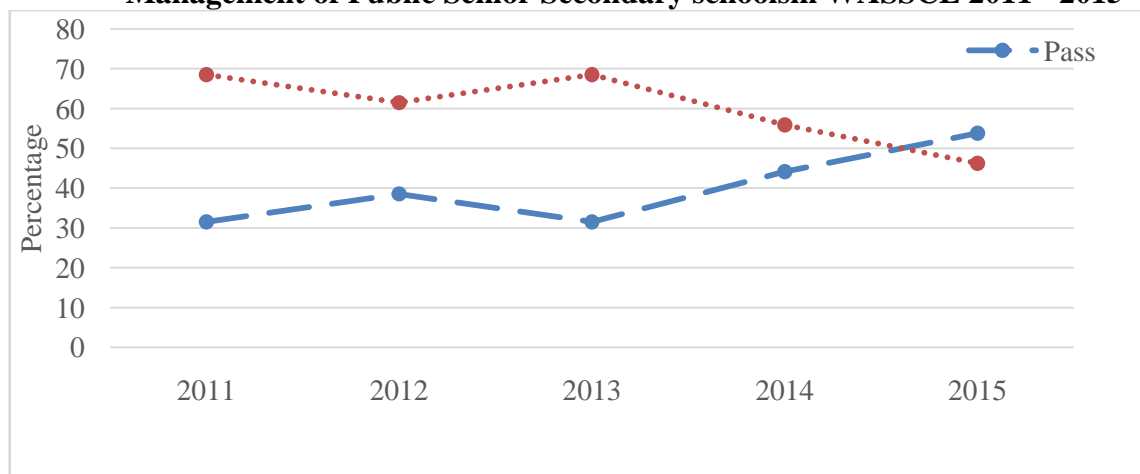


Table 4 and the figure 1 revealed that the total number of students who enrolled for mathematics in 2011, only 31.52 percent passed with a standard deviation of 30.446 and 68.49 percent of the students failed. For 2012 the percentage of students who passed the subject rose to 38.54 percent while it decreased to 31.51 percent in 2013. But in 2014 the number of students that passed the subject in the two Zones rose to 44.14 percent and



in 2015 most of the students passed with a percentage performance of 53.78. This shows that 2015 has the highest results while 2011 has the least in mathematics.

**Research Question two:** What is the performance of students in English Language in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). The Performances of the Students in English language across the five years' period is shown in Table 5. The performances across the five years are figureically illustrated in Figure 2.

**Table 5: Mean and Standard Deviation of Students' Performance in English language on the Management of Public Senior Secondary Schools in WASSCE(2011-2015)**

Year	Mean Percentage of students who passed English language			Mean Percentage of students who failed English language		
	Mean %	Std. Deviation	Std. Error	Mean %	Std. Deviation	Std. Error
2011	34.86	25.318	5.661	65.14	25.318	5.661
2012	34.45	27.283	6.101	65.55	27.283	6.101
2013	19.39	15.764	3.525	80.62	15.768	3.526
2014	31.13	30.355	6.788	68.88	30.350	6.787
2015	44.04	26.995	6.036	55.97	26.995	6.036
<b>Total</b>	<b>32.77</b>	<b>26.346</b>	<b>2.635</b>	<b>67.23</b>	<b>26.346</b>	<b>2.635</b>

**Fig. 2: Mean Percentage of Students' Performances in English language on the Management of public Senior Secondary Schools in WASSCE (2011- 2015)**

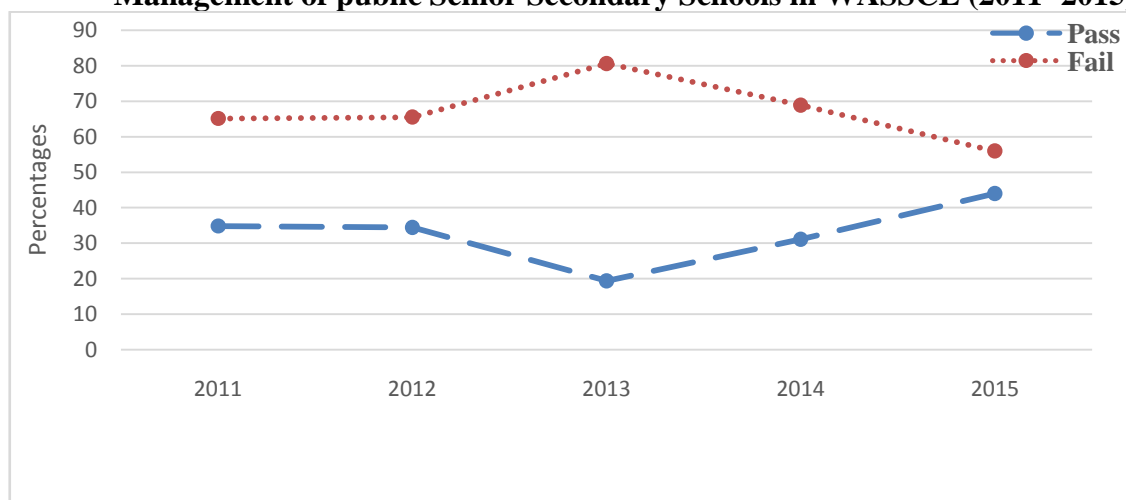


Table 5 and the figure2 shows that only (34.86) percent of the students that enrolled for English Language passes the subject in 2011 in the two Zones with a standard deviation of 25.318 percent. In 2012, the performance of the students decreased to (34.45) percent with a standard deviation of 27.283 and drastically decreased to (19.39) percent in 2013 with most (80.62) percent of the students failing the subject. There was however some improve in 2014 where the percentage of performance rose to 31.13 percent and this was increased upon in 2015 when the percentage rose to 44.04 percent. The table shows that 2015 has the highest results while 2013 got the least (poor) results.

**Research Question three:** What is the performance of students in science subjects in WAEC (SSCE) on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). The performances of the students in Sciences over the five-year period are presented in Table 6 with a figureical illustration in Figure 3.

**Table 6: Mean and Standard Deviation of students' Performances in Science Subjects onthe Management of Public Senior Secondary Schools in WASSCE(2011-2015)**

Year	Mean percentage of students who passed Science subjects			Mean percentage of students who failed Science subjects		
	Mean %	Std. Deviation	Std. Error	Mean %	Std. Deviation	Std. Error
2011	29.12	32.090	7.175	70.88	32.090	7.175
2012	35.15	29.830	6.670	64.85	29.830	6.670
2013	46.29	29.570	6.612	53.71	29.570	6.612
2014	49.61	28.975	6.479	50.39	28.975	6.479
2015	51.35	26.127	5.842	48.65	26.127	5.842
<b>Total</b>	42.30	30.072	3.007	57.70	30.072	3.007

**Fig. 3: Mean Percentage of Students' Performance in Science Subjects on the Management of Public Senior Secondary Schools in WASSCE(2011 – 2015)**

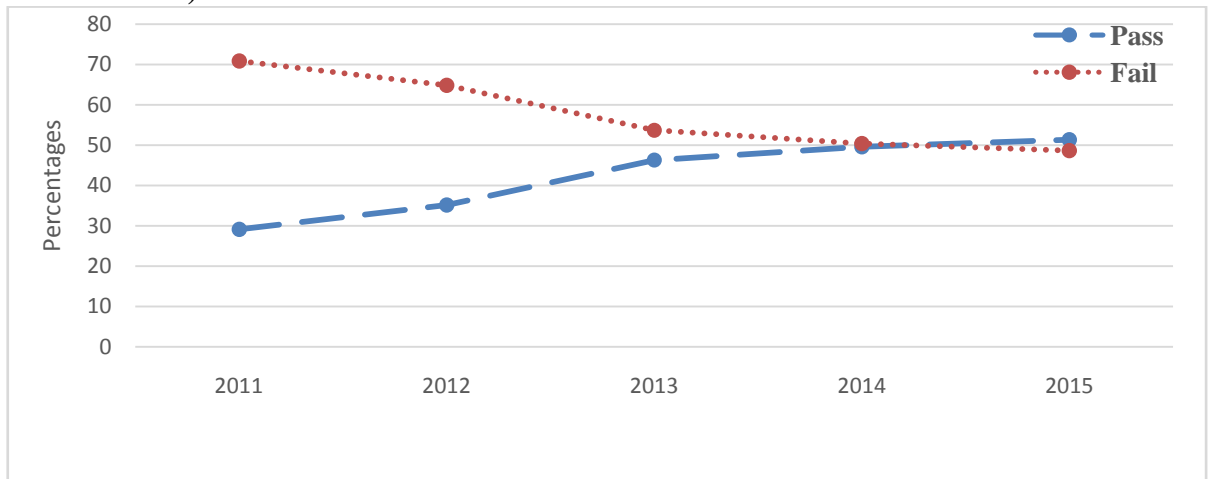


Table 6 and the figure 3 revealed that Performances of the Students in Science Subjects was generally poor in 2011 with only 29.12 percent of pass while 70.88 percent of those who enrolled for the subjects failed. This is clearly illustrated in the figure. There was some slight improvement in 2012 as the performance rose to 35.15 percent and in 2013 there was a further rise in the performances of the students with a rise to 46.29 percent. The improvement took almost a linear trend from then onward with performance rising to 49.61 percent in 2014 and 51.35 percent in 2015 respectively.

**Research Question four:** What is the Performance of Students in arts and social science subjects in WAEC (SSCE) on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). Table 8 shows the percentage performances of the students in Arts and Social Sciences subjects over the five-year period. The percentages are illustrated figureically in Figure 4.

**Table 7: Mean and Standard Deviation of Students' Performance in Arts and Social Science Subjects on the Management of Public Senior Secondary schools in WASSCE(2011-2015)**

Year	Mean Percentage of students who passed Art and social Science subjects			Mean Percentage of students who failed Art and Social Science subjects		
	Mean %	Std. Deviation	Std. Error	Mean %	Std. Deviation	Std. Error
2011	47.03	28.767	6.432	52.97	28.767	6.432
2012	35.23	28.134	6.291	64.78	28.134	6.291
2013	46.31	29.484	6.593	53.69	29.484	6.593
2014	45.61	28.282	6.324	54.40	28.282	6.324
2015	35.82	26.597	5.947	64.19	26.597	5.947
<b>Total</b>	<b>42.00</b>	<b>28.202</b>	<b>2.820</b>	<b>58.00</b>	<b>28.202</b>	<b>2.820</b>

**Fig. 4: Mean Percentage of Students' Performance in Arts and Social Science Subjects on the Management of Public Senior Secondary schools in WASSCE(2011 – 2015)**

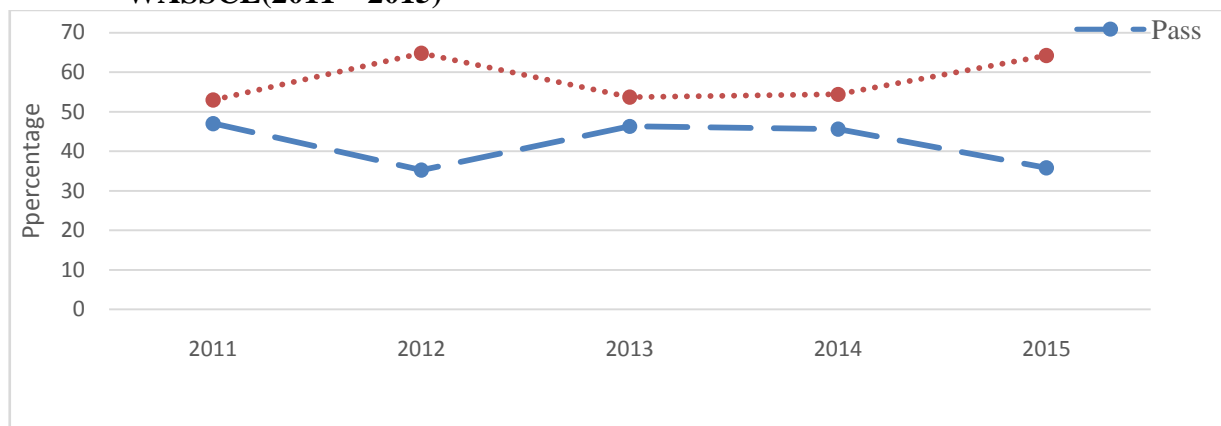


Table 7 and the figure 4 shows that Performances of the Students in Arts and Social Sciences was 47.03 percent of the total that enrolled in 2011 with 52.97 percent failures. In 2012, the percentage performance fell to 35.23 percent and rose to 46.31 percent in 2013. There was a slight fall of the performance in 2014 to 45.61 percent and an increase in the number of failures to 64.19 percent with only 35.82 percent who passed the subjects. These are indicated in the movement of the lines in the figure.

**Research Question five:** What is the performance of students in vocational and technical subjects in WASSCE on the management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015). The performances of the students in vocational and technical subjects over the study period are shown in Table 8 with graphical illustration of the percentages in Figure 5.

**Table 8: Mean and Standard Deviation of Students' Performance in Vocational and Technical Subjects on the Management of Public Senior Secondary Schools in WASSCE (2011-2015)**

Year	Mean percentage of students who passed vocational/ technical subjects			Mean percentage of students who failed vocational/ technical subjects		
	Mean %	Std. Deviation	Std. Error	Mean %	Std. Deviation	Std. Error
2011	39.34	24.350	5.445	60.66	24.350	5.445
2012	42.61	22.493	5.030	52.40	23.610	5.279
2013	44.79	15.676	3.505	55.21	15.676	3.505
2014	28.31	22.779	5.094	71.69	22.779	5.094
2015	37.33	22.465	5.023	62.68	22.465	5.023
<b>Total</b>	<b>38.47</b>	<b>22.075</b>	<b>2.207</b>	<b>60.53</b>	<b>22.574</b>	<b>2.257</b>

**Fig. 5: Mean Percentage of Students' Performance in Vocational and Technical Subjects on the Management of Public Senior Secondary schools in WASSCE(2011 – 2015)**

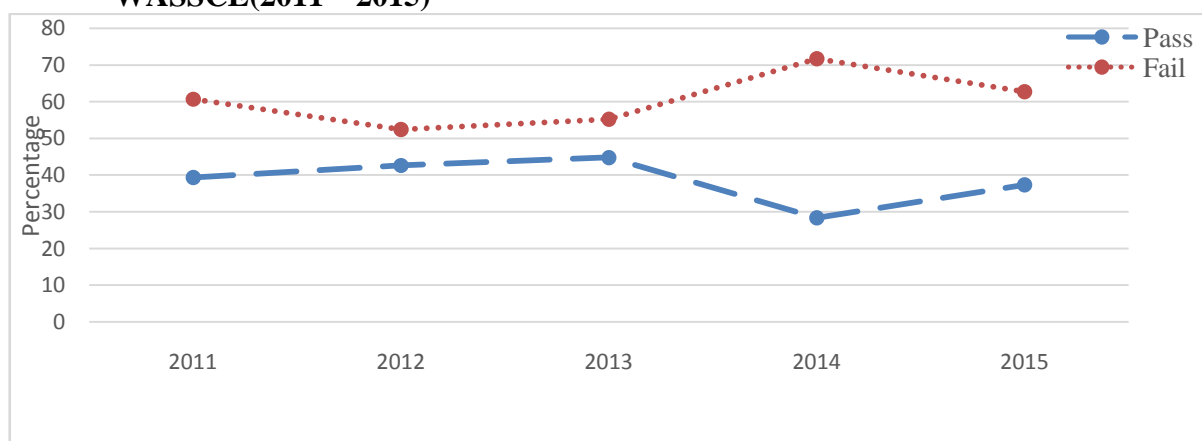


Table 8 and figure 5 revealed the total number of students that enrolled for the vocational/technical subjects in the Zones for the 2011, only 39.34 percent passed the

subjects and 60.66 percent failed. The figure shows the trend of performances of the students over the five -year period. In 2012, the percentage of performance was 42.61 percent while in 2013 it was 44.79 percent. The performance fell to 28.31 percent with failure rising to 71.69 percent in 2014. In 2015, there was a slight increase in the performances of the students with a record of 37.33 percent.

### **4.3 Hypotheses Testing**

Five null hypotheses formulated in the study were aimed at identifying significant differences in the performance of students on the management of public Senior Secondary school certificate examination in Zaria and Giwa education Zones of Kaduna State. The testing was on the variables related to the Subject/Subjects groups offered by students in WASSCE in Mathematics, English Language, Sciences, Arts and Social Science subjects and vocational and technical subjects. The hypotheses were tested at the probability level of 0.05. The non-parametric Kruskal-Wallis test procedure was used for comparing the percentage performance over the period of five years. The hypotheses are tested as follows:

**Ho1: There is no significant difference in the Performance of students in Mathematics in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

To test this hypothesis, the performances in mathematics by students over the five-year period in the two Zones were computed and subjected to the Kruskal-Wallis Test because of the multiple number of years involved in the test. Table 9 shows a summary of the test result.

**Table 9: Kruskal-Wallis Test on Students' Performance in Mathematics in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

YEAR	N	Mean Rank	Chi-Square	DF	P-value
2011	20	40.275			
2012	20	49.025			
2013	20	42.75	10.0295	4	0.040
2014	20	54.475			
2015	20	65.975			
<b>Total</b>	100				

(Critical value of Chi-square at 4 DF = 9.49)

Table 9 shows the result of the non-parametric test of Kruskal-Wallis test above revealed the mean WAEC (SSCE) performance rankings in Mathematics of the five years. The result in the table showed that the students' performances in mathematics between the years varied significantly. It happens because of the calculated significant value of 0.040 ( $p < 0.05$ ) alpha value of significance. Their mean performance rankings were 40.275, 49.025, 42.75, 54.475 and 65.975 for years 2011, 2012, 2013, 2014 and 2015 respectively. This shows that year 2015 with mean ranking of 65.975 had the highest WASSCE performance in Mathematics while Year 2011 with mean ranking of 40.275 had the least performance in mathematics rankings.

The calculated chi-square of 10.0295 is higher than the critical value 9.49

Critical value = 0.05 = 9.49

Decision Rule:

From the chi-square for 4 degree of freedom at 0.05 level of significance, the critical chi-square value is 9.49. This shows that the calculated value of 10.0295 is greater than the tabulated value of 9.49 which is  $10.0295 > 9.49$ .

In the test of  $H_0$ , the performance of the students in mathematics was compared over the five years' period for the education Zones. The result of the test revealed that

students' performances in mathematics differed significantly between the years. Thus, the null hypothesis was rejected.

**Ho2: There is no significant difference in the Performance of Students in English Language in WASSCE on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

This hypothesis was tested by subjecting the percentages performances of the students in English language over the five-year period to a Kruskal-Wallis Test procedure. Table 10 present the summary of the test's result.

**Table 10: Kruskal-Wallis Test on Students' Performance in English Language in WASSCE on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

Year	N	Mean Rank	Chi-Square	DF	P-value
2011	20	54.925			
2012	20	53.45			
2013	20	36.675	9.775	4	0.044
2014	20	44.475			
2015	20	62.975			
<b>Total</b>	100				

(Critical value of Chi-square at 4 DF = 9.49)

Table 10 shows the result of the non-parametric test of Kruskal-Wallis test above revealed the mean WASSCE performance rankings of the five years. The result showed that significant differences exist among the five years under review. This is because the calculated significant value of 0.044 is less than the 0.05 alpha value of significance. Their mean performance rankings were 54.925, 53.45, 36.675, 44.475 and 62.975 for years 2011, 2012, 2013, 2014 and 2015 respectively. This shows that year 2015 had the highest WASSCE performance in English language while 2013 had the lowest performance in English language ranking.

The calculated chi-square of 9.775 is higher than the critical value of 9.49



Critical Value = 0.05 = 9.49

Decision rule

From the chi-square for 4 degree of freedom at 0.05 level of significance, the critical chi-square value is 9.49. This revealed that the calculated value of 9.775 is greater than the tabulated value of 9.49. Therefore, the null hypothesis which stated that there is no significant difference in the performance of students in English Language in WAEC (SSCE) on the management of Public Senior Secondary Schools in Zaria and Giwa education Zones, Kaduna State, Nigeria (2011-2015) was therefore rejected.

**Ho3: There is no significant difference in the Performance of Students in Science Subjects in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

The performance of students in science Subjects over the five years' period were compared to Kruskal-Wallis Test procedure used for the test and the test result is summarized in Table 11.

**Table 11: Kruskal-Wallis Test on Students' Performance in Science Subjects in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

Year	N	Mean Rank	Chi-Square	DF	P-value
2011	20	36.35			
2012	20	43.575			
2013	20	54.35	9.902	4	0.042
2014	20	57.5			
2015	20	60.725			
<b>Total</b>	100				

(Critical value of Chi-square at 4 DF = 9.49)

Table 11 shows the outcome of non-parametric test of Kruskal-Wallis test above revealed the mean WAEC (SSCE) performance rankings in science subjects of the five years. The result showed that significant differences exist among the five years under

review. This is because the calculated chi-square value of 0.042 is less than the 0.05 alpha value of significance, their mean performance rankings were 36.35, 43.575, 54.35, 57.5 and 60.725 for years 2011, 2012, 2013, 2014 and 2015 respectively. This shows that year 2015 with mean ranking of 60.725 had the best WAEC (SSCE) performance in Science Subjects while year 2011 had the least performance in Science Subjects rankings.

The observed chi-square 9.902 is higher than the critical chi-square of 9.49.

Critical Value = 0.05 = 9.49

Decision rule

From the chi-square for 4 degree of freedom at 0.05 level of significance, the tabulated  $X^2$  value is 9.49. it shows that the computed value of 9.902 is greater than the tabulated value of 9.49 that is,  $9.902 > 9.49$

Therefore, the null hypothesis which stated that there is no significant difference in the performance of students in science subjects in WAEC (SSCE) on the management of Public Senior Secondary Schools in Zaria and Giwa education Zones, Kaduna State, Nigeria (2011-2015) was therefore rejected.

**Ho4: There is no significant difference in the Performance of Students in Arts and Social Science Subjects in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

To test the hypothesis, the performances of students in Arts and social science subjects in Public Senior Secondary Schools over the five-year period were computed and compared with the aid of Kruskal-Wallis Test procedure. The result of the test is summarized in Table 12.

**Table 12: Kruskal-Wallis Test on Students' Performance in Arts and Social Science Subjects in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

Year	N	Mean Rank	Chi-Square	DF	P-value
2011	20	56.525			
2012	20	42.925			
2013	20	54.725	3.953	4	0.412
2014	20	54.225			
2015	20	44.1			
<b>Total</b>	100				

(Critical value of Chi-square at 4 DF = 9.49)

Table 12 shows the result of non-parametric test of Kruskal-Wallis test above showed the mean WAEC (SSCE) performance rankings of the five years in Arts and Social Sciences. The result revealed significant difference in the performances of the students in the above subjects over the five-year period of review. This is because the calculated chi-square value of 0.412 is greater than the 0.05 alpha value of significance. Their mean rankings in Arts and Social Science subjects were 56.525, 42.925, 54.725, 54.725, 54.225 and 44.1 for years 2011, 2012, 2013, 2014 and 2015 respectively. This shows that year 2011 had the highest WAEC (SSCE) performance in Arts and Social science subjects while 2012 had the least mean ranking.

The calculated chi-square of 3.953 is less than the critical chi-square value of 9.49

Critical Value = 0.05 = 9.49

Decision Rule

From the  $X^2$  for 4 degree of freedom at 0.05 level of significance, the tabulated  $X^2$  Value of 9.49. This revealed that the computed value of 3.953 is less than the critical value of 9.49 that is,  $3.953 < 9.49$ .

Therefore, the null hypothesis which stated that there is no significant difference in the performance of students in Arts and Social science subjects in WAEC (SSCE) in Public

Senior Secondary Schools in Zaria and Giwa education Zones, Kaduna State, Nigeria (2011-2015) was therefore retained.

**Ho5: There is no significant different in the Performance of Students in Vocational/Technical subjects in WAEC (SSCE) on the Management of Public Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

The percentage performances of the public Secondary school students in vocational subject over the five-year period were compared here. The Kruskal-Wallis Test procedure was used for the test and the result is summarized in Table 13.

**Table 13:Kruskal-Wallis Test on Students’ Performance in Vocational and Technical Subjects in WAEC (SSCE) on the ManagementPublic Senior Secondary Schools in Zaria and Giwa Education Zones, Kaduna State, Nigeria (2011-2015)**

Year	N	Mean Rank	Chi-Square	DF	P-value
2011	20	50.825			
2012	20	56.325			
2013	20	61.05	8.731	4	0.068
2014	20	35.725			
2015	20	48.575			
<b>Total</b>	100				

(Critical value of Chi-square at 4 DF = 9.49)

The observation of the above table 13 revealed the non-parametric test of Kruskal-Wallis test for the mean WAEC (SSCE) performance rankings of the five years’ period under review in vocational and technical subjects. The result showed that students did not differ significantly in their performances. This is because the calculated significant value of 0.068 is higher than the 0.05 alpha value of significance. Their mean WAEC (SSCE) performance rankings in vocational and technical subjects were 50.825, 56.325, 61.05, 35.725 and 48.575 for years 2011, 2012, 2013, 2014 and 2015 respectively. This revealed that year 2013 with mean ranking of 61.05 had the best WAEC (SSCE)

performance in vocational and technical subjects while year 2014 had the least mean ranking of 35.725.

The observed chi-square value of 8.731 is less than the critical value of 9.49

Critical Value = 0.05 = 9.49

Decision rule

From the chi-square for 4 degree of freedom at 0.05 level of significance, the tabulated chi-square value is 9.49. This shows that the computed value of 8.731 is less than the critical value of 9.49 that is,  $8.731 < 9.49$ .

Therefore, the null hypothesis which stated that there is no significant difference in performance of students in Vocational and Technical subjects in WAEC (SSCE) on the management Public Senior Secondary Schools in Zaria and Giwa education Zones, Kaduna State, Nigeria (2011-2015) was therefore retained.

#### **4.4 Summary of Major Findings**

The following are the summary of the major findings from the study:

1. There was effect of management on public Senior Secondary schools in Mathematics with highest mean in 2015 and lowest in 2011 in Zaria and Giwa education Zones, Kaduna State.
2. There was effect of management on public Senior Secondary schools in students' performance in English Language with higher mean in 2015, and lowest in 2013 in WASSCE in Zaria and Giwa education Zones, Kaduna State.
3. There was effect of management on public Senior Secondary schools in Students' performance in Science Subjects with highest mean in 2015, and lowest in 2011 in WASSCE in Zaria and Giwa education Zones, Kaduna State.

4. There was effect of management on public Senior Secondary schools in Social Science Subjects with highest mean and best in 2011, but lowest in 2012 in WASSCE in Zaria and Giwa education Zones, Kaduna State.
5. There was effect of management on public Senior Secondary schools in students' performance in Vocational and Technical Subjects, with highest mean (best) in 2013 and lowest in 2014 in WASSCE in Zaria and Giwa education Zones, Kaduna State.

#### **4.5 Discussion of Major Findings**

The analysis had shown the effect of management on Public Senior Secondary schools in Students' Performance in West African Secondary School Certificate Examinations (WASSCE) in the two Zones of Kaduna State, Nigeria. The result of the test in three subjects revealed the mean on the management of Public Senior Secondary schools on Students' Performance in both Mathematics, English language and Science Subjects differed significantly between the years of the study. Therefore, the null hypotheses were rejected. In Arts and Social Science Subjects and Vocational and technical Subjects, the result revealed that the effect of management of public Senior Secondary schools on Students' Performance in the two subjects did not differ significantly in mean ranking within the five years in the study area. Therefore, null hypotheses were retained.

Table 9 reveals that there was effect of management on students' performance in Mathematics in year 2015 which perform better than the previous years with 65.975 mean ranking in the senior secondary schools in Zaria and Giwa education Zones, Kaduna State. This agrees with the results of mathematics revealed by WASSCE examination body from 2004-2007 which was terrible, because majority of the students

perform very poor as indicated by the examination body, as 33.97% got credit in 2004, 38.20% in 2005, 41.12% in 2006 and 46.7% in 2007 in Nigeria. This shows that the previous year perform below expectation which most students would not be able to gain admission into higher institutions. In table 10, it was revealed that, in English language, the effect of management on public secondary schools in students' performance in year 2015 was at highest peak with 62.975 mean ranking in senior secondary school certificate examination compare to other years under the study area with 44.475 in 2014, 36.675 in 2013, 53.45 in 2012 and 54.925 in 2015 mean rankings. This finding shows that other years perform below expectation and also delay them for higher education in Nigeria. It agrees with Onipede (2003), who stated that, poor performance is described as any performance that falls below a desired standard. He also reported that, students certificate examination in many subjects performed poorly especially in English language.

In science subjects, table 11 shows that, the effect of management of public senior secondary schools on the performance of students in WASSCE particularly in 2011, 2012, 2013 and 2014 with mean rankings of 36.35, 43.575, 54.35 and 57.5. Only year 2015 performed better with mean ranking of 60.725. This finding is in line with Dan Azumi (1998) who reiterated that one of the most repeatedly mentioned problems causing poor performance in these subjects Chemistry, Physics and Biology since introduction of WASSCE is lack of equipment and materials to conduct practical in a multivariate study. This implies that, conducting practical in a multivariate by the students can improve the performance of students in science subjects. Table 12 indicates that, a difference does not exist between arts and social science subjects significantly. It shows that, 2011 perform better and higher than the other years with mean ranking of

56.525 while other years especially in 2015 and 2012. This finding also agree with Al-Methen & Wilkinson (1992) who reported that, failure in students' performance in arts and social science subjects is due to the lack of confidence in the knowledge they possess which in turn could affect their level of activities in the classroom. Table 13 indicate that there was effecton the management of public Senior Secondary schools in students' performance with highest mean in 2013than other years 2011, 2012, 2014 and 2015 respectively. This findingis also in line with Nwogwu (1989) who pointed out the need for blending theoretical and practical work in teaching of subjects as to stimulate students' interest, especially on vocational/technical subjects.



## **CHAPTER FIVE**

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

#### **5.1 Introduction**

This chapter concludes, summarizes and offers recommendations as well as suggestions for further studies.

#### **5.2 Summary**

Education in Nigeria is an instrument “par excellence” for effecting national development. Unfortunately, observations and reports from examination bodies revealed that a high percentage of Secondary School Students continue to perform poorly in Senior School Certificate Examinations. Therefore, the study was set to ascertain and analyze the Students’ Performance in WAEC (SSCE) on the management of Public Senior Secondary Schools in Zaria and Giwa education Zones.

Chapter one of the study include management of public Secondary Schools which comprises of planning, organizing, coordinating, Commanding, directing, Staffing leading and controlling of an organization to accomplish Educational goals. The chapter also explained statement of the problems which has injected worry into the minds of all those who have concern for Nigerian youths. In a State or Country where a greater number of youths are school dropouts, social vices such as armed robbery, raping, cultism, kidnapping among others. Poor management of public secondary schools in West African Examinations also disturbed the minds of all Stakeholders in terms of mass failure among the senior secondary school students. Five objectives of the study were stated, five research questions, research hypotheses, basic assumptions were formulated, significance and scope of the study were discussed to analyze the performance of students in five Subjects groups within the last five years in Zaria and Giwa Education Zones.

Chapter two presents Conceptual framework and the literature reviews and examined the academic performance of Students in WASSCE in the Subjects offered by Students in the final year examination. The following headings were reviewed from the previous researchers such as Meaning of Academic Performance, concept of management, element of management, Meaning of analysis, theoretical framework, students' performance in WASSCE in Mathematics, Students' performance in WASSCE in English Language, Students' performance in WASSCE in Science Subjects, Students' Performance in WASSCE in Arts and Social Science, Students' Performance in WASSCE in Vocational and Technical Subjects, Challenges to Students' Performance, Ways to Students' Performance, five empirical studies related to this study were reviewed under various sub-headings and summary.

The method of sample selection adopted was by random sampling technique from the (46) Public Senior Secondary Schools. The instruments used to collect data for the study was the WACE (SSCE) score sheets of students, a secondary data called Gazette.

Chapter Three discussed the study's methodologies adopted. An ex-post facto design was used by means of gathering the data. The sampling out technique adopted was the cluster sampling technique by singling English and mathematics because of their importance and grouping other subjects as an area of specialization as Science, Arts and Social Science and Vocational and Technical Subjects of the WAEC within the study area.

Chapter Four presented and discussed the results of the data analysis. The research questions were answered and the research hypotheses were tested at 0.05 level of significance. The results revealed that significant mean differences exist between

performances and the years in three Subjects groups under the study which are English Language, Mathematics and Science Subjects. While in two Subjects groups such as Arts and Social Science Subjects and Vocational and Technical subjects did not differ significantly in the performances of students. The summary of data analysis findings concluded the chapter four. Chapter Five was on study's summary, conclusion as well as recommendations and Suggestions.

### **5.3 Conclusion**

Considering the findings of this study, the effect of management of public senior secondary schools on students' performance level in West African Secondary School Certificate Examinations (WASSCE) in core subjects from 2011 to 2015 in Zaria and Giwa Education Zones, Kaduna State was better in the year 2015 in WASSCE than the other years. Year 2011 and 2013 performance under the study was poor and unpromising. This finding means that many students in public schools in Zaria and Giwa would not be qualified for admission into higher institutions in the country in the previous year 2011 and 2013 since they require the core subjects for their different disciplines of study. This study revealed that management of public senior secondary school on Students poor performance in West African Secondary School Certificate Examinations (WASCE) in core subjects from 2011 to 2015 in Zaria and Giwa Education Zones, Kaduna state was below expectation and compromising during the five years under study. Some teachers revealed that Corruption among some educational administrators, transfer of teachers from one school to another, lack of teachers' motivation, lack of manpower (quality of teachers) and poor management and maintenance of school facilities and instructional materials.

Other factors include lack of seriousness by students, poor infrastructures, poor teaching method by teachers, inadequate learning materials, unfavorable learning conditions, amongst others. This agrees with Eloebhose & Imhanlahimi (2000), said that learning resources are these devices, like human and material resources employed during the learning and teaching process to avoid a situation whereby the predetermined specific learning objectives of the lesson are not achieved. The influence of those resources on management of students' achievement cannot be overemphasized, therefore, a careful and cautious has been accorded to it, if we want to build and sustain the future students in Kaduna State especially Zaria and Giwa Zones. The role of parents on their ward/children is a factor for the significant differences in their performances in West African secondary school certificate examination. Finally, this requires an integrated effort of all stakeholders who possess the expertise needed for accurate and up to date assessment of all aspects of school facilities. The actualization of the goals and objectives of education require the provision, maximum utilization and appropriate management of the facilities. This will improve the quality of teaching and learning.

#### **5.4 Recommendations**

Although various suggestions and recommendations were made in the past by many researchers in form of articles in newspapers and periodicals, papers at seminars and conferences, discussions on radio and television as to how the level of productivity and efficiency of teachers in the educational sector could be improved, this will not prevent the researcher from proffering some again.

- 1) The State's Ministry of Education and the management of secondary schools should organize regular special programmes such as seminars, workshops,

conferences,provisions and management of mathematics instructional materials and service training for senior secondary school teachers to improve their competence and apply any method that will fit a particular topic in Mathematics for better students' performance and to update their knowledge on the new development in other areas of specialization.

- 2) Management of the schools should provide libraries, create and manage Students' clubs and Societies. They should also advice teachers of public senior secondary schoolsto encourage students to devote more time, effort to learning and reading in English language through constant practice in spoken English and listening to models, reading materials such as books, magazines, newspapers in English language and practicing writing of letters, articles, essays and participating in school quiz to improve students' performance in West African senior secondary school examination.
- 3) All stakeholders should make decisions on the management of public senior secondary schools on the provision of infrastructural facilities, modern equipment's and sufficient library and laboratory facilities to facilitate teaching and learning of Science Subjects in Zaria and Giwa education Zones, Kaduna State.
- 4) The Ministry of Education in the State and management of the schools should intensify more efforts in conducting regular and adequate visits and routine checking to schools in a bid to monitor the running of the schools,laboratories, equipment and teaching instructional materials in order to improve the performances of students in Arts and social science subjects in West African secondary school certificate examinations.

- 5) Vocational and technical subjects should be encouraged by the government, management, PTA and individual agencies by supporting schools with Vocational and Technical equipment in the laboratories such as bakeries, cookers woodwork and metal work workshop among others to ensure quality in public Secondary Schools.

### **5.5 Suggestions for Further Research**

- 1) Other related research which this study did not cover can be further investigated such as: School locations in order to determine students' performance in WASSCE.
- 2) Further research on management of manpower (teachers' quality) should be carried out in other schools not covered in this study in order to determine student's performance in WASSCE across other Education zones.

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## APPENDIX I

### Total Population of Public Schools under Zaria and Giwa Education Zones

S/N	Schools under Zaria Zone	Schools under Giwa Zone
1	Alhuda Huda College	Government Secondary School Bomo
2	Barewa College Zaria	Government Girls Secondary School Samaru
3	Government Secondary School Zaria (KofarKibo)	Dr Shehu Lawal Government Girls Secondary School Giwa
4	Government Secondary School Chindit Barracks	Government Secondary School Kauran Wali
5	Government Secondary School Kofar Gayan	Government Secondary School Mararabar Gugar
6	Government Secondary School Dakace	Government Secondary School Shika
7	Science Secondary School Kufena	Government Secondary School Yakawada
8	Government Secondary School Tudun Jukun	Government Secondary School Jama'a
9	Government Secondary School Dogon Bauchi	Government Secondary School Fatika
10	Government Secondary School Aminu	Government Secondary School Gangara
11	Government Secondary School Magajiya	Government Secondary School Kwangila
12	Government Secondary School Kofan Doka	Government Secondary School Galadimawa
13	Government Girls Secondary School (W.T.C) Zaria	Government Secondary School Basawa
14	Government Science Secondary School Rimin Doko (Kaura)	
15	Government Secondary School Kofan Jatau	
16	Government Secondary School Gyallesu	
17	Government Secondary School Yakasai	
18	Government Secondary School Tudun Saibu	
19	Government Teachers Secondary College Soba	
20	Government Secondary School Dinya	
21	Government Secondary School Mayare	
22	Sheikh Ibrahim Arab Special government Secondary School Karau-Karau	
23	Government Science Secondary School Kaura	
24	Government Secondary School Datti Baba Ahmad Zaria	
25	Government Secondary School Muchia	
26	Government Secondary School Awai	

27	Government Secondary School Pada
28	Government Secondary School Chikaji
29	Government Secondary School Likoro
30	Commercial Government Secondary School Zaria
31	Government Secondary School Kuyanbana
32	Government Secondary School Tudun Wada Zaria
33	Government Secondary School Sabon Gari

Source: Zaria and Giwa Education Zones (2016).



## APPENDIX 2

### Collective Performance of Students in WASSCE in Mathematics 2011-2015

Year	Credit Pass	Failure	Total
2011	1679	3959	5638
2012	1979	4470	6449
2013	1917	4261	6178
2014	2229	2991	5220
2015	1876	1526	3402

## APPENDIX 3

### Collective Performance of Students in WASCCE in English Language 2011-2015

Year	Credit Pass	Failure	Total
2011	1628	3836	5464
2012	1740	4712	6455
2013	1203	5141	6344
2014	1520	3696	5216
2015	1841	1879	3720

## APPENDIX 4

### Collective Performance of Students in WASSCE in Science Subjects from 2011-2015

Year	Credit Pass	Failure	Total
2011	770	2132	2902
2012	1035	1515	2550
2013	1220	1457	2677
2014	1119	1087	2206
2015	1014	765	1779

#### APPENDIX 5

##### Collective Performance of Students in WASSCE in Arts/Social Science from 2011-2015

<b>Year</b>	<b>Credit Pass</b>	<b>Failure</b>	<b>Total</b>
2011	1616	1652	3269
2012	1155	2494	3649
2013	1900	2053	3953
2014	1424	1493	2917
2015	804	1456	2260

#### APPENDIX 6

##### Collective Performance of Students in WASSCE in Vocational and Technical Subjects 2011-2015

<b>Year</b>	<b>Credit Pass</b>	<b>Failure</b>	<b>Total</b>
2011	542	668	1210
2012	531	781	1312
2013	927	978	1905
2014	564	1451	2015
2015	469	914	1383