

**ANALYSIS OF STUDENTS' PERFORMANCE IN WEST AFRICAN SCHOOL
CERTIFICATE EXAMINATIONS (WAEC) IN SABON TASHA AND ZONKWA
EDUCATION ZONES, KADUNA STATE, NIGERIA (2011-2015): IMPLICATIONS
FOR EDUCATIONAL MANAGEMENT**

BY

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AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA**

AUGUST, 2018

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,
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CURRICULUM, FACULTY OF EDUCATION, AHMADU BELLO UNIVERSITY,
ZARIA, NIGERIA**

AUGUST, 2018

DECLARATION

I hereby declare that the work in the dissertation entitled “Analysis of Students’ Performance in West African School Certificate Examinations (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (2011-2015): Implications for Educational Management”, has been carried out by me in the Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously been presented for another degree or diploma at this or any other Institution

PHILIP, Afunu Blessing

Date

CERTIFICATION

This dissertation entitled ANALYSIS OF STUDENTS' PERFORMANCE IN WEST AFRICAN SCHOOL CERTIFICATE EXAMINATIONS (WAEC) IN SABON TASHA AND ZONKWA EDUCATION ZONES, KADUNA STATE, NIGERIA (2011-2015): IMPLICATIONS FOR EDUCATIONAL MANAGEMENT by PHILLIP AFUNU BLESSING meets the regulations governing the award of the degree of Master of Education in Educational Administration and Planning of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation

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DEDICATION

This work is dedicated to my beloved husband, parent and family members for their prayers, financial and moral support toward the success of this work and on my academic pursuit.

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With gratitude to God the father, God the son and God the holy spirit who enabled me to successfully complete this project work, to Him alone be glory, honour and adoration forever. I was blessed to have the help and support of many talented people to whom I want to express my sincere thanks. To Dr. E. I. Makoju and Prof. B. A. Maina, my supervisors for their insight, corrections, feedback and expertise in this work.

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ABSTRACT

The study analysed students' performance in West African School Certificate examinations (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (2011-2015): Implications for Educational Management. Five objectives were raised in the study in order to examine students' performance in English Language, Mathematics, Physics, Government and Commerce in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The stated objectives were translated into five corresponding research questions and five hypotheses. The study reviewed literature on the key variables of the study. The study adopted ex-post facto research design. The population of this study consisted of 39,302 students presented for Senior Secondary School Examinations (WAEC) from 2011 to 2015 in all the 71 public secondary schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State. A sample size of 5,754 students in 14 secondary schools, Sabon Tasha and 2,033 students in 13 secondary schools, Zonkwa Education Zones who sat for examinations from 2011 to 2015 were randomly sampled in the study. The recorded WASSCE results of students in English Language, Mathematics, Physics, Government and Commerce who sat the examination from 2011-2015 formed the instrument used in this study. The results collected from the Services Division of WAEC, Kaduna Zonal Office, Kaduna State were analysed using descriptive and inferential statistical tools. The descriptive statistics of frequency and percentage was used to obtain answers to the research questions, while at inferential level, Simple Regression Analysis was used to test the hypotheses at 0.05 level of significance. Findings of the study among others revealed that students' performance in English Language in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. The general performance level of students in Mathematics in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. Recommendations were made among others that Kaduna State Government should ensure that secondary schools are well equipped to prepare students ahead of public examinations especially WAEC, while qualified and experienced English language teachers should be recruited to teach students preparing for the examinations.

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LIST OF ABBREVIATIONS

A1	Distinction in Academic Performance
APSP	African Primary Science Programme
B2	Distinction in Academic Performance
B3	Distinction in Academic Performance
C4-C6	Credit in Academic Performance
D7-E8	Ordinary Pass Grade
F9	Failure Grade
JSCE	Junior Secondary School Certificate Examination
MBPSS	Midwest Bendel Primary School Science
NECO	National Examination Council
NERDC	Nigerian Educational Research and Development Council
NISP	Nigerian Integrated Science Project
SEPA	Science Education programme for Africa
SSSCE	Senior Secondary School Certificate Examinations
SSCE	Senior Secondary School Certificate Examination
UME	University Matriculation Examination
WAEC	West African Examination Council
WASSCE	West African Senior School Certificate Examination

OPERATIONAL DEFINITION OF TERMS

Performance is an assessment strategy by which the evidence about students learning is gathered, through students work on a performance task.

Students' Academic Performance can simply be viewed as an outcome of all academic tasks or rigors of a person which could be poorly or successfully stated.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education has been responsible for the upliftment of the human conditions. The primary concern of education is the elevation of human conditions. Through education, people are enabled to develop their knowledge and skills, adopt new behaviour and be able to survive in the society (Alade, 2004). In the same vein, Oderinde (2005), opined that all over the world, education is the key to development which clearly demonstrated that education play vital roles in the development of the individual, society and the nation as a whole. Secondary schools not only occupy a strategic place in the educational system in Nigeria, it is also the link between the primary and the university levels of education. According to Asikhai (2010), education at secondary school level is supposed to be the bedrock and the foundation towards higher knowledge in tertiary institutions. It is an investment as well as an instrument that can be used to achieve a more rapid economic, social, political, technological, scientific and cultural development in a country.

Science is a dynamic human activity concern with understanding the working of our world. This statement helps man to know more about the universe. Without application of science, it would have been difficult for man to explore the planets of the universe (Ogunleye, 1991). The acquisitions of knowledge and technical skills which enable individuals have increase in their productivity and quality living, also leads towards economic growth and self reliance through qualitative education as a result of good academic performance in science in final year examination. It is rather unfortunate that the secondary schools today are not measuring up to the standards expected of them. There have been public outcries over the persistently poor performance of secondary school students in public examinations.

The cause of varying levels of academic performance in schools has often been a subject of investigation all over the world. In Nigeria, studies sought to explain the trend of candidates' performance in the West African Senior School Certificate Examinations (WASSCE). Some have attributed differences in performance to factors inherent in the candidates and in the syllabuses, while attention has also been paid to other factors (Adeyegbe, 1991; Uwadiae, 2006 & Owokade, 2007). According to Nwokocha and Amadike (2005), academic performance of students is the yardstick for testing the educational quality of a nation. Hence, it is expedient to maintain a high performance in internal and mostly external examinations.

For some years now, reports on the pages of newspapers and research findings have shown the abysmal performance of students of secondary schools in public examinations. Initially, Mathematics and English Language were recording poor results, but later this extended to other subjects including the Sciences and Arts. The schools can no longer justify the faith the government and the public have in them or the huge budgetary allocations they consume yearly. Nevertheless, students have not been doing well, and the situation is not improving. For example, in the WASSCE of May/June 2011, English Language recorded only 14.2% passes with Distinction and Credit grades, while 61.2% of the total 381,221 candidates failed. For Mathematics, only 11.1% passed in Distinction and Credit grades while 53.9% failed (WAEC, 2011).

In the examinations taken in June 2012 by 413,210 students, 14.2% and 13.7% passed with Distinction and Credit levels in English and Mathematics respectively. The failure rates for the two subjects were 59.6% for English and 64.9% for Mathematics (WAEC, 2012). Results in other core-subjects were equally poor with students doing much worse in subjects with practical work. In WASSCE of December 2014, for example, failure rates were 64.6% for English and Vocational and Technical subjects 58%. For some

years, varieties of factors have been advanced as being responsible for students' poor performance in WAEC.

Oladiran (2000) revealed that ambiguous curriculum and syllabi which in most cases fail to realistically address the needs of our society are some of the hidden factors responsible for many students' poor performance in WAEC. Adejimola (2007) and Bamisaye (1993) observed that many of our schools are poorly equipped; some do not have libraries, laboratories and conducive classrooms. Teaching equipment such as blackboards, chalks and textbooks are lacking in some public schools. These inadequacies have a way of influencing the student's performance. Camp (2000) also pointed out that the non-challant attitude of students toward examination often affects the performance of students in public examinations. In the same vein, Shittu (2004) added that student's performance depends on socio-economic background of the child. Taiwo (2005) noted that the school authority should also be held responsible for the performance of students in public examinations. The Ministry of Education and Teaching Service Commission sometimes do not employ and post qualified teachers to schools and as such the few ones are made to teach all the subjects in these schools. The economic wellbeing of a nation is largely determined by the caliber of its human resources and where these cannot be achieved through the process of education, the development of such a country is hampered.

Therefore, if education is going to continue to hold on to its old image as an instrument par excellence for achieving national development, it has to be salvaged or resuscitated. The popular practices of changing the curriculum or adding more subjects, changing the duration of schooling or voting more money are not yielding the expected results. A lot more has to be done. Nigerians are quick at pointing accusing fingers at poor teaching facilities, inadequate and poorly trained teachers, parental laxity, under funding and so on. While all these are possibilities, there is an urgent need now to reappraise the

schools vis-à-vis all these factors since situations are not static. For instance, the government continues to vote more money into the education sector annually without corresponding improvement in the schools. Hence, in view of the above background, the researcher analysed the performance of students in senior secondary school examinations (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria from 2011 to 2015.

1.2 Statement of the Problem

The goal of WAEC is to be a world-class examination body (WAEC, 2008). It is also aimed at maintaining internationally-accepted procedures for examination by providing qualitative and reliable educational assessment. Despite the efforts of WAEC officials, there has been a noticeable decline in the performance of students in WAEC examination. Okoye (2012) observed that the high rates of failure noticed yearly in public examinations are only a symptom of a pervasive national failure syndrome. Adeyemi (2013) pointed out that despite the investment on secondary school education in Nigeria, students are not still performing well. Kpolovie, Ololube and Ekwebelem (2011) carried out a research on the performance of secondary school students in WAEC and NECO and discovered that the students were not performing as expected. Adeyemi (2013) wrote on foundational problems as the basic causes of WAEC failure among secondary school students. Hansel (2012) found out that the causes of massive examination failure in WAEC included non-availability of textbooks, environments being too noisy and not convenient for learning and inadequate preparation among others.

Moreover, the teaching of Science subjects has two components. The theoretical component which is meant to train the students properly in the concepts, theories and principles of science. There is also the practical laboratory based component, which is intended to enable students undertake laboratory work necessary for explaining practically

their understanding of the theories, ideas, principles and concepts of science they were taught theoretically. Both the theory and the practical work are important in the overall study and assessment of students in science because no one component is more important than the other. Over the years, the majority of students that sat for the May/June West African Examination Council (WAEC) and November/December National Examination Council (NECO) have been recording mass failure, not only in the area of overall performance of the students, but also in the main subject like English, Mathematics, and Science which includes Biology, Chemistry and Physics where the high spate of failures have been a dominant feature of the students performance in Physics in secondary schools in Sabon Tasha and Zonkwa Education Zones. Statistics released by West African Examination Council (WAEC), have pointed to the fact that students have not been performing up to the required standard despite the high investment which the state government and parent have been making in the sector.

Furthermore, the consistent poor and substandard academic performance of many public secondary schools in Sabon Tasha and Zonkwa Education Zones, specifically in the past five years (2011, 2012, 2013, 2014 & 2015) in West African Senior School Certificate Examinations made educationist, the government, policy makers and the researchers wonder whether the school is measuring up to the expectations. However, several factors among the numerous problems associating with public secondary schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State that affect the performance of students in English language, Mathematics, Science, Arts and Social Science positively or negatively in the WAEC examination include lack of management of school building, facilities and equipment, such as science equipment, textbook, libraries, science and language laboratories.

Other factors include maintenance of instructional materials for the teaching and learning process, maintenance of discipline, management and administration of senior secondary schools, inspection and supervision of school curriculum and time table by State Ministry of Education, inter-personal relationship between school and community, time management, teachers' level of commitment, inter-personal relationship between students and teachers and students' welfare support services. Hence, this study looked at the Analysis of Students' Performance in West African School Certificate Examinations (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (2011-2015): Implications for Educational Management.

1.3 Objectives of the Study

The study was carried out with the objectives to:

1. examine students' performance in English Language in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management;
2. find out students' performance in Mathematics in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management;
3. ascertain students' performance in Physics West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management;
4. find out students' performance in Government in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management; and

5. assess students' performance in Commerce in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management.

1.4 Research Questions

The following research questions were raised for the study:

1. What is the performance of students in English Language in West African School Certificate Examinations WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management?
2. What is the performance of students in Mathematics in West African School Certificate Examinations WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management?
3. What is students' performance in Physics in West African School Certificate Examinations WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management?
4. What is students' performance in Government in West African School Certificate Examinations WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management?
5. What is the performance of students in Commerce in West African School Certificate Examinations WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implications for Educational Management?

1.5 Research Hypotheses

The study was guided by the following null hypotheses:

- Ho₁ There is no significant difference in students' performance in English Language in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State;
- Ho₂ There is no significant difference in students' performance in Mathematics in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State;
- Ho₃ There is no significant difference in students' performance in Physics in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State;
- Ho₄ There is no significant difference in students' performance in Government in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State; and
- Ho₅ There is no significant difference in students' performance in Commerce in Senior Secondary School Examinations in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

1.6 Basic Assumptions

The study is based on the assumptions that:

1. Provision of qualitative English Language textbook is assumed to improve students' performance in WAEC Examination in Schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State.
2. Availability of qualified mathematics teachers is assumed to aid better performance of students in WAEC Examination in Schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

3. Availability of modern laboratory is assumed to aid better performance in Science subjects in WAEC Examination in Schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State.
4. It is assumed that when Government students are taught using innovative methods students tend to have better performance in WAEC Examination in Schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State.
5. Provision of modern Commerce textbook assumed to motivate and enhance better performance among students in WAEC Examination in Schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

1.7 Significance of the Study

The findings of this study would be significant to teachers, government, policy makers, educational administrators, supervisors, examination bodies, students and future researchers. The outcome of this study would help the teacher to check and improve on his method and quality of teaching which would in turn improve the performance of students in external examination. It would also help them in evaluating their performance in the teaching of the various aspects of curriculum contents. The result of the study would reveal the aspects of the English Language, Mathematics, Physics Government and Commerce curriculum that are not properly implemented by teachers. This may lead to improvement in such aspects of the curriculum for greater performance among the students.

The result would help the school administrators and educational supervisors and inspectors identify the areas of the curriculum where students are poorly taught with a view to take remedial actions. The outcome of this study would be of importance to school inspectors, as it will provide an insight on why students fail science subjects in external examinations in secondary schools in Sabon Tasha and Zonkwa Education Zones Kaduna State.

The result would also reveal the need for the government to also pay attention to those schools in the rural areas in order to harness the talents that may be hidden there wasted which may help in realizing the ratio 60:40 admission policy in favour of science and science related courses in our institutions of higher learning. The result of the study would help in predicting achievement in one aspect of the examination from the achievement in the other aspect especially when the student unavoidably could not write the predicted.

Likewise, the result of this study will also help the state government and policy makers in the education sector of the state to have insight into students' performance across Sabon Tasha and Zonkwa Education Zones, Kaduna State. This will help in identifying areas or schools with greatest need of intention to improve science subjects formation for economical and scientifically growth generally.

The finding of this research would be of significant importance to parents, schools managers, WAEC officials, teachers stakeholders in education in providing valuable solution to students' performance in their examinations most especially sciences. The finding of this research will contribute to the body of knowledge as it will find out the factors that are responsible for the poor performance of students in English Language, Science subjects, Arts and Social Science, and Vocational and Technical Education in West African Senior Secondary School Certificate Examination (WASSCE).

1.8 Scope of the Study

The study focused on the Analysis of Students' Performance in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implication to Educational Management. Particularly, the study was delimited to students in public secondary schools which took the SSCE (WAEC)

during the period of 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria. Other variable of the study include students' performance in English Language, Mathematics, Physics, Government and Commerce.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviewed related literature on the topic Analysis of Students' Performance in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implication to Educational Management. The review was carried out under the following sub-headings; Conceptual Framework, Concept of Secondary Education, Students' Academic Performance, Theoretical Framework, The Grading of West African Examination Result, Students' Performance in West African Senior School Certificate Examination in English Language, Students' Performance in West African Senior School Certificate Examination in Mathematics, Students' Performance in West African Senior School Certificate Examination in Arts and Social Science Subjects, Students' Performance in West African Senior School Certificate Examination in Science Subjects, Laboratory Facilities/Materials as a Factor in Science Subjects, Students' Performance in West African Senior School Certificate Examination in Vocational and Technical Subjects, Aims of Vocational and Technical Education, Practical Works as a Factor in Vocational and Technical Education, Empirical Studies and Summary.

2.2 Conceptual Framework

Over the years, assessments of factors that influence academic performance of senior secondary student in WAEC have attracted the interest and concern of many researchers, teachers, parents and national leaders. It is a well known fact that students' performance in academic activities vary, some students in physics perform better than the other, many disadvantaged students feel that the length of their student career would be limited by their finances, rather than by their academic ability and this make them lag

behind in their academic performance. Students from particularly disadvantaged backgrounds of ten find themselves at odds with certain aspects of their non-academic background. In some cases, particularly males, an anti-education ethos seemed to be operating against participation in secondary education. Such pressures could emanate from friends and family, to whom secondary education may be an unimportant issue.

Recent research in the area of steady decline in learning outcome in mathematics and science subjects in general show that the social and economic disadvantage is a major problem affecting academic performance of student (Clemens & Oeike in Adeyemo & Babajide, 2012). They also attributed the causes of academic achievement to a combination of personal institutional factors. Personal factors relate to the individual intelligence, knowledge and ability. Institution factors are family or parental influence, and school related factors.

Enclosed within the institutional factors are teacher related factors and living condition. High level of illiteracy, poverty and low socio-economic status coupled with high rate of paternal and maternal deprivation of student academic needs, which was necessitated by poor socio-economic situation of the country has thrown many families into untold financial problems such as poverty and lack of money to purchase textbook and provide the best for their children. This poor parental care with gross deprivation of social and economic need of a child, usually leads to poor academic performance of student which is obvious in their school performance in WAEC result. Teachers and researchers have tried to find out the factor responsible for these differences in academic performance so as to devise a way of helping those who do not perform well.

The number of candidates in a graduating set, no doubt, is a factor that could mar or make performance level in final examinations in senior secondary schools. On teacher

quantity, Fabunmi, Brai-Abu and 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 performance. According to Hallack (1990), the material resources that contribute to students' performance include: classrooms, accommodation, libraries, furniture, apparatus and other instructional materials. The author emphasized that the availability, relevance and adequacy of these facilities contribute to students' performance in WASSCE. A close look at the schools and what goes on there shows that nothing good can come out of most public schools as they do not have enough facilities adequate and appropriate human resources to prepare the large size of registered candidates for West African Examination Council (WAEC) examinations. In view of this background, each of the study variables shall be discussed as follows.

2.2.1 Concept of Secondary Education

Education can be regarded as the key that unlocks the development of personal and national potential and all other kinds of rights and powers in the world. The increasing awareness of the importance of education for sustainable development in Africa is paramount. Education for sustainable development in Africa, can be define as the educational process of accomplishing sustainable human development which includes economic growth, social development, environmental protection, scientific development and employment opportunities in an equitable manner. Balogun (2010) opined that education is the light, without which, the world would be in darkness. It is the basis for modernity, scientific and technological breakthrough, which have made all nations of the world accord immense priority to education. Nigeria as a nation strives toward the provision of quality and affordable education for its citizens through the guiding principle of National Policy on Education (2009). The guiding principles of education in Nigeria is

the equipping of every citizens with acquisition of knowledge, desirable skills, attitude and values as well as to enables him or her to derive maximum benefits from his or her society, and also contribute his quota meaningfully towards the development of the nation at large.

Secondary school education is one among the levels of education in Nigeria.

Fabunmi (2005) defined Secondary school education as the form of education, which children receive after primary education and before the tertiary level. It is the second level of education in Nigeria headed by a school administrator called principal. Certainly, Principal is the head of an institution that occupies a pivotal position, requires initiatives and skills for the day to day administration of a secondary school. As a school leader, principal must have foresight for effective, efficient and dynamic principles in handling matters between the school, staff and the host community. Similarly, a principal must be in a position to guide and provide expertise guardian in regards to curriculum development, teaching methods, and evaluation as well as supervision of human and material resources. For the school to function well, the principal must be in a position to exploit all possible means to keep a healthy environment for the students, staff and the general public. Therefore as a principal, who is the chief executive officer of a school, should guides and inspires the teachers' for job satisfaction. It also sets the direction of polices, acceptable standards for academic and behavioural achievement of students, establishes a friendly school climate and influences the commitment of every stakeholder in the society for the achievement of the educational goals.

Secondary education, which serves as a link between primary and tertiary levels, is vital to national development. Management of resources at this level is very vital to achievement of educational objectives. Firstly application of appropriate management techniques would assist in taking care of all available facilities. In either words, facilities which might have suffered neglect as a result of carelessness, ignorance, lack of

commitment and lack of resources for management, would receive attention from school administrators. Also, school resources which are well managed are likely to be durable. This will save us the cost of replacement within a short period of procurement. In addition, there would be safety from danger, disaster and theft when resources are well managed, certain facilities, especially the ones in the laboratories, are delicate, dangerous, expensive and explosive. They need to be well managed in order to avoid the danger which would arise from their usage. Also, disasters such as flood and fire could be avoided if there is proper planning for safety precautions.

Principal as a leader is also the liaison officer that mediates between the school and the society. A critical role of a principal is to mobilize the teaching and non-teaching staff towards the achievement of the school objectives. Ibukun (2004) views leadership as a position of dominance and prestige accompanied by the ability to direct, motivate and to assist others in achieving a specified purpose. Aina (2011) posited that leadership is about concern for social justice, a compassion for the under privileged, dedicated to the growth of self-reliance, commitment, ability to communicate, courage to take risks, make bold decisions, ability to achieve the desired result and faith in the people's ability. Aghenta (2006) viewed school principal as a leader that provides direction and expert advice on development of teaching and learning in school. The principal has a duty to lead, guide, conduct, direct and motivate both the teaching and non-teaching staff toward achievement of the school goals and objectives. The principal position is a high-pressure job in the context of instructional supervision and resource management in his or her day to day running of school. It is also a job that the remuneration is less compare with the responsibilities attached to it. The secondary school principals are face with many challenges in their daily routine; these challenges are enormous which hinder the progression of the secondary schools aim and objectives in Nigeria.

The National Policy on Education (2009) stated that secondary education would be in two stages, Junior and Senior, each stage being of three years duration. Whatever type of secondary school that is in place, the prime function of education officials is to provide a condition within which boys and girls develop socially, mentally, and intellectually. This can be achieved through the learner's association with knowledge, information and environment. Adejumo (2004) asserted that, secondary education should be purposeful in order to sustain the students through the years ahead. This position agrees with the purpose for secondary education as contained in the National Policy on Education (2009).

Prior to Independence on 1st October 1960 and shortly till 1970, Nigeria, secondary school products were held with high esteem because of the genuineness of their training in school and the capability they demonstrated in places of work after graduating. Could this observation must have resulted from limited opportunities, small number of students, parents concern, judicious use of scarce resources and capable and well trained teachers? Graduates of these schools served in the administrative, commercial and educational sectors. They got involved in editorial jobs in media places and made sincere contributions towards the political, social and economic development of Nigeria. They specifically played significant roles towards political emancipation and got involved in teaching in spite of the fact that trained teachers were not enough.

The belief that educational standard in those days were very high and probably higher than what obtains nowadays in schools is controversial. Whether the standard was high or higher than the standard of nowadays, the praises or blemishes were majorly traceable to teachers. This is because, teachers were the role models and students were at their impressionistic stage. The role of teachers in this stance could not be exaggerated. Instances exist when students confess that they develop interest in medicine, law,

engineering, teaching and so forth, because of the teacher(s) that taught the fundamental courses leading to such profession.

On the other hands many students trace their academic laxities to the inadequacies of the teacher(s) that taught them. In a nutshell, students tend to imitate their teachers in movement, talks, behaviour, or attitude towards some things or beliefs. Some students equally imitate the behaviour of some teachers (idiosyncrasy, bad mannerism, smoking etc) in school (Oloyede & Adesina, 2014). Consequently, good or bad attitudes of college graduates can be traced to behaviours they inherited from their teachers. What then is worthwhile that can bring the good attitude upon which progress and development depend is the essence of this writing. Thus, the re-education of teachers in schools is of paramount importance. As no nation would rise above the standard of her education, teachers have onerous task of modifying their students' behaviour in present day Nigeria.

The persistent decline in students' performance in public examinations is not only frustrating to the students and the parents, its effects are equally grievous on the society. 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, financial, physical resources). However, this study was limited to the provision of human and material resources as potent factors for students' academic performance.

2.2.2 Students' Academic Performance

The term 'academic performance' has been described as the scholastic standing of a student at a given moment. It refers to how an individual is able to demonstrate his or her intellectual abilities. Students' performance according to Adu, Ojelabi and Adeyanju

(2009) can simply be viewed as an outcome of all academic tasks or rigours of a person which could be poorly or successfully stated. As noted by Ijaduola (2008), performance cannot be gingered in students if they are discouraged. Teachers are expected to meaningfully contribute to student's academic performance. A weighty performance of a student is sometimes attributed to higher teachers' efficiency. The National Policy on Education (2004) stated that secondary education would be in two stages, Junior and Senior, each stage being of three years duration. Whatever type of secondary school that is in place, the prime function of education officials is to provide a condition within which boys and girls develop socially, mentally, and intellectually. This can be achieved through the learner's association with knowledge, information and environment. Adejumo (2004) asserted that secondary education should be purposeful in order to sustain the students through the years ahead. This position agrees with the purpose for secondary education as contained in the National Policy on Education (2004).

Academic performance is viewed in terms of actual achievement in school (Eze cited in Ehinola, 2008). According to this author, the tools used in measuring this are continuous assessments and periodic examinations. As posited in the definition of academic performance, the rating of academic performance takes different methods depending on the criteria considered and the person giving the definition. Definition of performance involves display of knowledge, ability or skills by individuals. Oso cited in Ehinola (2008) refers to the term performance as "involving the notion of accomplishment, attainment in the execution of a task". This description implies that the individual possesses or has achieved certain skills which are displayed in carrying out an assignment. What Oso is actually saying is that performance pre-supposes achievement and is confirm by displaying or portraying the knowledge or skills obtained during learning.

The term performance as an actual accomplishment as distinguished from potential ability which implies that it is what is actually displayed and not what can be done or achieved or available skills that constitute performance (Undegbe cited in Ehinola, 2008). Likewise, performance has been described as an action of a person or group when given a learning task. This description portrays the fact that when achievement is displayed, it may, however be below or above expectation, in which case performance may be good or bad. If for instance, the learner is presented with a learning or skill which enables the learner to carry out the task properly and mastered by learning. On the other hand, if the learner has not completed the necessary skills or knowledge, he may not be able to carry out the task properly, hence, the performance of the learner depends on portrays of his/her achievement.

Performance may be good or bad depending on whether or not the individual displays the relevant skills in relation to the demand of a task or what is being tested. for instance, if a mechanic who is asked to service a car learnt or acquired the necessary skill which will enable him service it properly, his performance will be good when carrying out the assignment effectively. From the perspective of language or linguistics, the skills or knowledge necessary for proficiency or good performance will be different. Menges (2000) believes that in English language, performance embraces a process of coding and decoding message relayed in the language in a test assessment which may be qualitative or quantitative.

2.3 Theoretical Framework

Developments in learning theory shifted the focus of causal analysis from hypothesized inner determinants to detailed examination of external influences on responsiveness. Human behaviour was extensively analysed in terms of the stimulus events that evoke it and the reinforcement consequences that alter it (Bandura, 1971 cited in

Wikipedia, 2015). Traditional theories of learning generally depict behaviour as the product of directly experienced response consequences. In actuality, virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis through observation of other people's behaviour and its consequences for them. Man's superior cognitive capacity is another factor that determines, not only how he will be affected by his experiences, but the future direction his actions may take. Hence, this study adopts Social Learning Theory, developed by Albert Bandura (1971) cited in Wikipedia (2015).

Albert Bandura posits that learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instruction, even in the absence of motor reproduction or direct reinforcement (Bandura cited in Wikipedia, 2015). In addition to the observation of behaviour, learning also occurs through the observation of rewards and punishments, a process known as vicarious reinforcement. The theory expands on traditional behavioural theories, in which behaviour is governed solely by reinforcements, by placing emphasis on the important roles of various internal processes in the learning individual (Bandura cited in Wikipedia, 2015).

Social learning theory integrated behavioural and cognitive theories of learning in order to provide a comprehensive model that could account for the wide range of learning experiences that occur in the real world. As initially outlined by Bandura and Walters in 1963 and further detailed in 1977, key tenets of social learning theory according to Bandura (1971) cited in Wikipedia (2015) are as follows:

1. Learning is not purely behavioural; rather, it is a *cognitive* process that takes place in a social context;
2. Learning can occur by observing a behaviour *and* by observing the consequences of the behaviour (vicarious reinforcement);

3. Learning involves observation, extraction of information from those observations, and making decisions about the performance of the behaviour (observational learning or modeling). Thus, learning can occur without an observable change in behaviour;
4. Reinforcement plays a role in learning but is not entirely responsible for learning; and
5. The learner is not a passive recipient of information. Cognition, environment, and behaviour all mutually influence each other (reciprocal determinism).

2.4 The Grading of West African Examination Result

Examinations occupy a unique position as a measure of quality within the educational system of Sabo Tasha Educational Zone, Kaduna State, Nigeria. They are either internal or public. Internal examinations are the examinations that are set by teachers within a school system. These could be in the form of tests and end of term examinations. Public examinations, on the other hand, are examinations that are conducted by recognised examining bodies. As such, the examinations: Senior Secondary Certificate Examinations (SSCE) and the Junior Secondary School Certificate Examination (JSCE) are regarded as external examinations. This is in the sense that the examining boards conducting these examinations did not themselves organize instructional courses nor prepare students for the examinations. They are designed to evaluate performance at the end of a course of study or programme.

Examinations in Nigerian schools dated back to the advent of formal education. The 1887 Education Ordinance made provision for public examinations in schools that have attained the requisite percentage of proficiency. Thus, the National Policy on Education (2009) stipulated that all secondary schools should gear their programmes to meet the requirements of examinations being conducted for the Senior School Certificate.

The pattern of grading candidate's scores in the examinations was such that the distinction grade was represented by A1 to B3. The credit grade was represented by C4 to C6. The ordinary pass grade was represented by D7 and E8 while the failure grade was represented by F9 (WAEC, 2012). It needs to be mentioned however, that the distinction and credit grades are the only requisite qualifications for admissions into universities in Nigeria and candidates must have at least credit in five subjects including English Language in order to qualify for admission (Gray, 2001).

2.5 Students' Performance in West African Senior School Certificate Examination in English Language

There have been contentions that public school is one factor that affects learning activities which in turn affect performance of students. A public school is any school controlled and/or supported by the state or national government. The recurrent poor performance of secondary school students in Senior School Certificate Examination (SSCE) conducted by West African Examination Council (WAEC) in Nigeria is distressing and awkward. For instance, the results released by WAEC in 2011 revealed that about 75% of the candidates that sat for the examination failed because they did not have credit passes in five subjects including English Language. Similarly, about 84% of candidates that sat for Nov/Dec 2012 failed Senior Secondary School Examination (SSCE) of the National Examination Council as they did not have credits in five subjects including English Language (Falola, 2011).

Likewise, in the year 2012 only 4.2% of the candidates that sat for senior secondary school examination passed (Uwadiae, 2008). These reports are worrisome because secondary school students of today are expected to become leaders tomorrow. Especially, in Sabo Tasha Educational Zone, Kaduna State which is the focus of this study, results for Sabo Tasha Educational Zone reveals that in 2011-2015 West African Examinations

Council (WAEC), Sabo Tasha Educational Zone had 2.16%, in year 2011 Sabo Tasha Educational Zone had 4.04%, in 2012 Sabo Tasha Educational Zone had 3.96%, in 2013 Sabo Tasha Educational Zone had 4.55%, in 2014 Sabo Tasha Educational Zone had 5.03%, and in 2015 Sabo Tasha Educational Zone had 5.91%.

WAEC Chief Examiner's Reports (2012) also showed that English Language students' poor performance in English paper 2 (theory) over the years, arises from students' having difficulties in tackling questions which required explanation, making logical deductions, and speaking good English. They lost marks for among other reasons: Inability to write balanced equations with the state symbols; non-adherence to rubrics; poor knowledge of comprehension; poor communication skills; wrong spellings. From the above discussion it is understood that the English Language examination constitutes three aspects; the objectives, theory/Essay and the summary and comprehension aspect. It is also understood that students do fail in English Language examination, but it is not yet clearly understood in which of the three aspects of the examination do they have serious problems? Is it in the objectives, theory/Essay and the summary and comprehension aspect? Or, will it be in both aspects of the examination? These are some of the questions this study is proposing to address.

English Language is offered at the senior secondary school level, from senior secondary one (SS1) to senior secondary three (SS3) classes, as a single subject. The senior secondary school students had done English Language at the junior secondary school which is to prepare them for offering English Language at SS level. However, the above assertions have shown that the SS students' performance in English Language has not been encouraging. This might have been partly responsible for the slow pace of scientific and technological development in Nigeria. This slow pace according to Iloputaife (2000) is attributable to a number of factors which include lack of facilities, teachers' non-

seriousness/dedication to work, lack of interest on the part of the students while some may be related to the state of English Language education enterprise in Nigerian schools.

Durum (2003) observed that one of the problems found in English Language teaching in Nigeria is that English Language is presented dogmatically in most schools which students find difficult to relate to real world. Most of our secondary schools' library are ill-equipped and as a result students are denied that feeling of participation in the reality, which practical classes and demonstration provide. All other factors put apart, this is enough to make students perform poorly in examination.

Onwioduokit (1996), looking at the position of English Language education in Nigeria observed that a great majority of the currently serving school teachers are not qualified to teach English at the secondary school level. The type of English teachers we have, in Nigeria might have been responsible for the poor performance of students in the Senior School Certificate Examination (SSCE) and of course the lack of progress in technology. Studies on variables of teaching found poor performances of students to be as a result of poor classroom teaching and students' attitude to school (Okebukola, 2005).

According to Doma (2011), identified some topics in 'O' level English Language, which teachers perceived as difficult to teach and this difficulty correlated significantly with their professional qualifications and years of teaching experience. The implication of this is that they could not teach well because of lack of confidence, experience and qualification. Doma (2011) revealed that teachers do not plan in their day to day teaching and learning processes, selection of teaching methods and resources but were efficient in presentation, classroom management and students' involvement. Ali (2002) investigated the issue of teacher quality in terms of their qualifications, commitment to teaching and the nature and scope of support given to English teachers to enable them offer high quality

English teaching at the classroom level. His study revealed that English is a dynamic subject and so teachers need to be continually retrained so as to keep abreast of new developments in English Language. Where this does not happen many English teachers will be teaching concepts that are obsolete or wrong to students.

According to Zanna (2002), teachers of English are expected to make English Language more interesting, enjoyable, easy and meaningful to students. Teachers need to improve their teaching methods and employ appropriate teaching strategies as the teaching–learning situation may demand. He further showed that, project method improved achievement than lecture method, Effiong and Erukoha (2003), found that both inquiry-based and refined traditional approach could be employed as viable alternatives in English teaching. There are other reasons why English students’ overall performance in this subject is poor both at the theoretical English level and summary and comprehension English level. For instance, many English educators reported that poor facilities for teaching in addition to teachers’ poor teaching methods and poor presentation of instructional materials in the teaching of English language may be responsible for making students lack interest in the subject and eventually resulting in their failure in both internal and external examinations.

2.6 Students' Performance in West African Senior School Certificate Examination in Mathematics

Mathematics is not entirely abstract but has practical aspects. It touches all aspects of life. According to Greek philosophers, the whole life is synonymous to mathematics. The Greek believes that everything can be mathematics. On the other hand, according to Lawton in Ajao and Awogbemi (2012), curriculum has to do with a whole range of matters and tasks relating to contents, experiences and the implementation of the plans into practice by the class-room teachers. For all secondary school students in Nigeria, it is compulsory to offer mathematics. This is in line with the National Policy on Education (FRN, 2009) which emphasizes mathematics as a “vehicle” of science and technology. The National Educational Research and Development Council (NERDC) which was established late 1964 organized series of seminars and workshops between 1973 and 1975 on how to plan a curriculum and produce syllabi textbooks and other instructional materials for all levels of education. This was in anticipation of the proposed new policy on education.

In his work, Fakuade as cited in Ajao and Awogbemi (2012) declared that it is a fact that excellence in the knowledge and use of mathematics is an essential factor in the development programme of any nation that wants to have respectable status among other nations of the world. Due to Technological awareness and the need to teach Science and Mathematics for meeting societal needs and aspirations, quite a number of science curriculum projects were prepared for primary and secondary schools and are constantly reviewed. Notably among these include: African Primary Science Programme (APSP) which was later known as Science Education programme for Africa (SEPA), Midwest Bendel Primary School Science and Nigerian Integrated Science Project (NISIP) and so on.

Abdullahi cited in Ajao and Awogbemi (2012) pointed out that Mathematics like an octopus has its numerous tentacles in all branches of knowledge. In the same vein, Dada (1996) reiterated the fact that teaching of mathematics in secondary education after independence did not in any significant way differ from what it used to be before the independence. It was such lives and cries that forced the government to organize a national conference on curriculum development in Lagos between September 8-12, 1969. The conference on curriculum was sponsored by the Nigerian Educational Research Development Council (NERDC) and was saddled with the onerous responsibility of reviewing the nation's educational system with particular emphasis on the objectives of education and the content of the curriculum in the light of the peoples' needs; both as individuals and as a nation (Dada, 1996).

The following are some of the roles of WAEC: (i.) Conduct examination and award certificates, (ii.) Set questions and conduct examinations to cover such areas as practical, oral and Essay, (iii.) Set a common standard through their syllabi and draw a uniform time table for conduct of examinations, (iv.) Provide data or feedback on students' performance to schools, thus helping to fast-track improvement in teaching and learning in schools (Ibrahim, 2003). Adeogun (1991) showed the relationship between students' performance in mathematics in some selected secondary schools in Ilorin Local Government Area of Kwara State. Twelve (12) schools were selected by stratified random sampling technique. Twenty (20) students from each of the selected secondary schools were chosen by systematic random sampling techniques. Among the findings by the researcher are: (i.) There is a positive and high correlation between students' performance in mathematics, (ii.) Boys performance better in mathematics is not better than the girls, (iii.) The locations of the schools (urban or rural) had influence on students' performance in mathematics (Adeogun, 1991). A lot of concern has been expressed by a large number of concerned

citizens on students' attitudes to sciences. Their verdict was that there was low enrolment of students in science (Aminu, 1997). The importance of students' performance in science and mathematics could not be viewed slightly as it helps in pursuit of academic and industrial revolution.

The importance of mathematics in studying and understanding sciences has long been recognized worldwide (Ale & Osibodu, 2001). Aliyu (2004), in his research study, concluded that chemistry topics which require mathematics for proper understanding are difficult areas for Nigeria High School students in terms of comprehension. He therefore concluded again that there is a relationship between mathematics and chemistry empirically. Students who find mathematics easy to understand tend to turn towards chemistry and those who find mathematics difficult choose against chemistry. Continuous assessment is the mechanism whereby this final grading of a student in cognitive affective and psychomotor domains of behaviour takes into account a systematic way of all his performance during a given period of schooling (FRN, 2009).

Adeyemi (1991) has his primary objective highlighting the relationship between continuous Assessment and Junior School Certificate Examination scores in mathematics. Terminal assessments are those administered on learners after a series of lessons, usually covering many different concepts or topics that have been taught. He highlighted further that such assessments usually come at the end of the term, session or the middle of the session. Ayodele (2005) was of the view that periodic assessments are more frequent especially with mathematics teachers, usually in form of quizzes, mental sums, and short tests.

Spencer (2001) was of the opinion that mathematical experience could be interesting and fruitful in developing individual abilities to understand social institution

and in equipping one to meet more effectively problems which occur in his personal life. Another study by Ogunleye (1991) was carried out in sampled secondary schools in Ikole Local Government Area of Ekiti State, Nigeria. The study examined the relationship between students' attitude toward mathematics and their performance in WAEC. Some hypotheses were formulated and tested statistically. Within the limitation of the study, mathematics attitudes are conclusively related to achievement in mathematics. The study revealed that mathematics is seen as more useful to males than females. This fact is documented by Sherman and Fennema as cited in Ajao and Awogbemi (2012). An investigation revealed significant correlation between attitudes and mathematical achievement (Jackson, 1998). Since his review concentrated on measured attitude towards mathematics, one may then conclude that attitude towards specific subjects are more related to school achievement than a general attitude towards the school.

As regards sex factor in attitude and performance of students in mathematics, it was discovered that when males and females performance were compared for the analysis, there existed a sex factor in the students' performance in mathematics (Ogunleye, 1991). Aiken and Danger cited in Ajao and Awogbemi (2012) discussed the effect of sex differences on performance of students. Aiken said: "I have consistently found a significantly more positive mean attitude towards mathematics in males". This statement implies that there are differences in attitude of males and females towards mathematics. In his work, James (1992) tested for the relationship between mathematics and physics. Five questions were drawn from each topic which were given to the students to solve in five different schools. The solutions were collected and analysed to bring out the various concepts that are involved. With this, relevant mathematical concepts for understanding physics were however identified. Hence, Adekanni (1999) declared that without mathematics there is no physics.

Arinola (1996) examined the correlation between the performance in MOCK-SSCE and SSCE examinations in mathematics from 1990 to 1994 at Ajibade Grammar School, Ibadan. The correlation analysis was employed to determine the relationship that exists between the MOCK and SSCE examination. That is, to examine the contribution of the mock examination on the final SSCE examination. The findings showed that the MOCK-SSCE and SSCE results were closely related for the period of study (1990 to 1994). These results however, showed that there is less relationship between the two sets of grades for MOCK-SSCE and SSCE. Thus, the insignificant correlation obtained shows that both results were generally poor. The implication of the close relationship of MOCK-SSCE and SSCE results are as follows that; i. students who passed mathematics in the MOCK-SSCE have very low probability of failing mathematics in the SSCE result. ii. students who failed mathematics in the MOCK-SSCE have very low probability of passing mathematics in the SSCE.

The relevance of mathematics to the physical sciences was emphasized by Owa (cited in Ajao & Awogbemi, 2012) in his work on “Games in mathematics education” when he pointed out that, mathematics is a must on the school curriculum right from the primary school to the senior secondary school since it is the basis of understanding science. It is a known fact that one cannot understand concepts and phenomena in physics or chemistry without a set of high powered mathematics tools. This was carried out and clarified further by Adeoye (1991) when he pointed out that mathematical knowledge and skills are prerequisites for successful learning of Physics. Ninan (cited in Ajao & Awogbemi, 2012) in his study involving 76 undergraduates of liberal Arts at Hunter college of city University of New York, found that the students of the experimental group, that is those whose basic curriculum had been supplemented by mathematical models texts, performed significantly better in the physics test than the control group who has studied

only the basic curriculum. He then advised that students of science should learn the mathematical concepts and skills which are applicable in science because their attainment of scientific progress depends much on their mathematical competence.

Furthermore, Adeniran cited in Ajao and Awogbemi (2012) looked at various factors responsible for poor performance of students in mathematics and ways of minimizing the problems. A total of five secondary schools from which 200 students and 40 mathematics teachers were drawn participated in the study. One cognitive measuring instrument (mathematics achievement test) and two non-cognitive (The teachers' questionnaires and students questionnaires) were used for data collection. The results showed that a good percentage of sample of students drawn have a negative attitude towards mathematics. There was a significant relationship between students' attitudes towards mathematics and their performance in it. Results also showed that boys performed significantly better than their girls' counterpart. Several other intervening factors were suspected to be responsible for the poor students' performance in mathematics and suggestions were made for further in depth research into effect of such factors.

2.7 Students' Performance in West African Senior School Certificate Examination in Arts and Social Science Subjects

The contribution of Arts and Social Science Subjects in the overall development of Economy, Trade and Commerce cannot be overemphasized. Arts and Social Science Subjects provides the individuals with the ingredients which make them self-reliant and useful to the society which they belong to. Amaefule (2000) concluded that "Arts and Social Science Subjects is a subject which is very ideal for inculcating in students the virtues of honesty, critical thinking, spirit of inquiry, cooperative attitudes and the ability to observe nature consciously and logically".

In view of the above, Gero (2001) further observed that, “Arts and Social Science Subjects curriculum should surely reflect, the importance of Arts and Social Science Subjects in our daily lives”. This brings about the need for a curriculum that is more relevant to the need of our dynamic society. This must have been the reason for the senior secondary school Arts and Social Science Subjects curriculum to have been designed in such a way that the component topics are logically arranged, each unit in the curriculum is organized under topic, performance, objectives, content, activity and notes. The present design is more or less a scheme of work, which has been made available to the teacher to save him time and energy in planning his lesson.

Arts and Social Science Subjects is vital in the Economy, Trade and Commerce world, being a gateway to professions like Economics, Commerce, Banking and Finance, Civic Education and a host of others. However, poor academic performance of students in Arts and Social Science Subjects is evident in senior secondary school certificate examination. Educators are worried over poor performance of students in Arts and Social Science Subjects in secondary schools as this does not augur well for Arts and Social Science education programmes at tertiary institutions of learning. Ezeano (2002) reported that “Arts and Social Science teachers are in short supply in our secondary schools, so that normal teaching cannot go on where one Arts and Social Science teacher may be asked to teach SS I, II and III both in practical work and theoretical lessons. It is quite a tedious task for one teacher to prepare student for external examination and still teach other classes. In some cases it is better for one teacher to teach theoretical Arts or practical work. Where he is to teach both, the practical suffers most because it is more difficult to organize. Another factor that militates against Arts and Social Science teachers’ effectiveness is large class-size.

According to Foin (2001) large class-size increases teachers work load, create space problems for practical work, high level of indiscipline and inhibits teachers operational practices, including difficulties in assessing class work and reduces teacher–student interaction. Abdullahi (1996) agrees with Foin when he identified large class-size as a factor that militates against effective curriculum implementation. On his part Alberts (1999), held the views that small class-size enhances better utilization of resources than large class. Another major factor that hinders science teachers’ effectiveness in implementing chemistry curriculum is stress. According to Okebukola and Jegede (2000) Arts and Social Science teachers are often subjected to stress especially within the work environment and as such cannot be expected to perform optimally. They reported that poor working conditions, misbehaviour of students, lack of resource for teaching, overload with non-teaching duties and students’ poor attitudes toward Arts and Social Science are sources of stress for teachers. Hence we have a situation where students do not have a single practical work before the actual examination (Amaefule, 2001). The overall effect of this condition is poor performance of students. This practice must not be allowed to continue in our Arts and Social Science classrooms if ever Arts and Social Science education programme at secondary level is required to be improved.

Although teachers are still taxed with preparing their students for the future, no longer are their lessons confined to the textbook and the traditional classroom (Finson, Pedersen & Thomas, 2006). Learning style is seen by Kolb (2000) as “the way we prefer to absorb and incorporate new information”. Different people have different ways of learning, and as that, those ways are neither good nor bad” (Smith & Kolb cited in Kolb, 2000).

The knowledge of student preferred learning styles is vital if teachers or educators are to provide tailored strategies for individual students (Fleming, 1995). Knowing students’ preferred learning style also helps to overcome the predisposition of many

teachers to treat all students in a similar way (Fleming, 1995) as well as motivate teachers to move from their preferred mode(s) to using others. In so doing, they can reach more students because of the better match between teacher and learner styles (McCarthy, 2010; Okur & Bahar, 2010; Mlambo, 2011 & Ossai, 2012). For example, there is a clear trend in university teaching to instruct all students in the same way (i.e., a straight lecture format). Educators use this lecture format because of the relative ease of information passing, the need to cover the content, a long history of traditional lecturing, and perhaps due to their own preferences in learning. This may require instructors to stray from their own preferred mode(s) of teaching and learn to be using a variety of styles, which will positively affect learning. By using a variety of teaching approaches, teachers will reach more students because of the better match between teacher and learner styles.

A good match between students' learning preferences and instructor's teaching style has been demonstrated to have positive effect on student's performance (Kinshuk & Graf, 2009) observed that when teaching style is matched with the learner's cognitive operation (learning style), teaching and learning become more productive and rewarding. Learning preference refers to a person's "natural, habitual and preferred way" of assimilating new information. This implies that individuals differ with regard to what mode of instruction or study is most effective for them. Scholars, who promote the learning preferences approach to learning, agree that effective instruction can only be undertaken if the learner's learning preferences are diagnosed and the instruction is tailored accordingly (Pashler, McDaniel, Rohrer & Bjork, 2008).

Indeed, Mlambo (2011) reports that some students seem to learn better when information is presented through words (verbal learners), whereas others seem to learn better when it is presented in the form of pictures (visual learners). Clearly in a class where only one instructional method is employed, there is a strong possibility that a number of

students will find the learning environment less optimal and this could affect their academic performance. Okur and Bahar (2010) established that alignment between students' learning preferences and an instructor's teaching style leads to better recall and understanding. The learning preferences approach has gained significant mileage despite the lack of experimental evidence to support the utility of this approach.

Furthermore, the significance of Arts and Social Science as a school subject cannot be over emphasized. It combines with many school subjects - Pure Sciences, Mathematical Sciences, Languages and Technical Education to make a child qualify for tertiary education in Nigeria, and outside the country too. Similarly, it has led to making of professionals in various fields of human endeavour –Planning, Administration, Academics, Cartographic, hydrologic, climate, environmental and others - just to mention but a few. Abegunle (1998) wrote on “The Promotion of career opportunities through the Senior Secondary School Arts and Social Science (Geography)”. But there are complaints about the large scope and abstract nature of the subjects. The complaints are widespread among students; and teachers alike. That the subject is abstract is accentuated by the assumption that it is difficult to teach and learn about, and more importantly there are no readily available teaching aids for effective teaching and learning about the subject (Aderogba, 2009).

These probably explain the push and pull factors (Akande, Adetuberu, and Ajaegbu cited in Aderogba, 2012); and skepticisms of Senior Secondary School (SSS) students to register for the subject in their West African Examination Council (WAEC), National Examination Council (NECO) and University Matriculation Examination (UME) for admission into tertiary institutions, (Aderogba, 2011). That is, talkless of reading Arts and Social Science Subjects like Geography as a major course of study at the tertiary level of education, (Aderogba, 2005, 2012; Aderogba & Ogunowo, 2010).

In spurious style, Aderogba (2012) particularly repeatedly lament dearth of alien materials for effective teaching and learning about the Arts and Social Science Subjects in Nigerian Schools; and quick to suggest the use of local materials in place. This is becoming more relevant with declining availability of those sophisticated material; and Nigerian Government policies and programmes on local content. However, the objective of the study is to examine each aspect of the syllabuses of WAEC and identify materials for improvisation of aides (resource) for teaching and learning about the Arts and Social Science Subjects in Sabo Tasha and Zonkwa Education Zones, Kaduna State, Nigeria. That is, towards reducing the abstract assumptions in the subject and for ease of teaching and learning about it at the SSS level of education, and to accomplish the objective of teaching and learning about the content of the syllabus of study.

2.8 Students' Performance in West African Senior School Certificate Examination in Science Subjects

This incessant poor performance of students in Science Subjects like Chemistry, Physics, Biology and so on in senior school certificate examination (SSCE) has reached an alarming state and calls for critical investigation with the aim of finding solution to the problems associated with the teaching and learning processes in Science Subjects. In fact, the Chief Examiner 2013 made the following recommendations for remedies:

- i. Candidates should be made to know the importance of reading and adhering to rubrics.
- ii. They should also be exposed to more practical/laboratory activities.
- iii. They should improve on their quantitative skills and use of English Language.

- iv. Teachers should be more dedicated, ready and willing to impart the requisite knowledge to candidates. School authorities/government should employ well and qualified teachers with good remuneration to discourage distractions.

Ali (2002), was of the opinion that, Science Subjects like Chemistry, Physics, Biology and so on, is one of the subjects that have recorded poor students performance both in National and international examinations. While Okebukola and Jegede (2000), saw it that many factors (inability of the Science teachers to put across the Science concepts to the students, inability of the students to understand the Science concepts, apprehension that Science Subjects is a difficult subject to learn, lack of skills and competence required for teaching Science Subjects and shortage of qualified Science teachers) singly or in combination are implicated in the poor performance of students in Science Examinations.

Sola and Ojo (2007) noted that science teachers have always recognized the importance of practical work as a means of introducing learners to the scientific process of experimentation. They further stated that Science teaching should develop in the students manipulative and experimental skills to make them confident in conducting experiments and or researches. Student should do practical work of conducting experiments, reporting their observation and making inferences or conclusions, thus, developing their scientific knowledge and experimental skills and at the same time arousing and maintaining interest of the students in the subject. They further stated that lecture method is used primarily to introduce students to a new subject, but it is also a valuable method for summarizing ideas, showing relationships between theory and practice, and re-emphasizing main points. This explains the position that both the two methods are essential in teaching and learning of science subjects.

Science Subjects like Chemistry, Physics, Biology is one of the core subjects in the national education curriculum. It is studied alongside other subjects such as Mathematics, English and Agricultural Science. This is to prepare students for the pursuance of science academically as well as professionally to acquire appropriate and adequate foundation knowledge for such fields of studies like Engineering, Pharmacy, Medicine and Veterinary Medicine etc, to mention but a few. These fields cannot be studied without Science Subjects like Chemistry, Physics, Biology, Mathematics and English as it serves as pre-requisite to them.

Science Subjects occupies such a central position in the world that knowledge of it is required in the study of Agricultural Technology, Medicine, Pharmacy, Engineering, Petrochemical Engineering, Veterinary Medicine, Geology, Technical Education, Industrial Technology, Food Technology, Biological, Dentistry, Dietary and Physical Sciences (Gero, 2001). The contribution of Chemistry, Physics, Biology in the overall development of Science and Technology cannot be overemphasized. Chemistry, Mathematics, English and Agricultural Science provides the individuals with the ingredients which make them self-reliant and useful to the society which they belong to. This is a step taken to give all students a technological orientation so as to enhance technology education in Nigeria.

However, the poor performance of students and the pace at which scientific and technological development grow in Sabo Tasha and Zonkwa Education Zones, Kaduna State and particularly in Nigeria is very slow. This slow rate according to Iloputaife (2000) has been attributed to a number of factors which include lack of facilities, teachers' non-seriousness/dedication to work, lack of interest on the part of the students while some may be related to the state of science education enterprise in Nigerian schools. For instance, Ette (1990) indicated that a major defect in our science education is that science is

presented dogmatically in most schools as a series of disjointed facts and concepts which students find difficult to relate to real world. He further stated that most of our secondary schools' laboratories are ill-equipped and as a result students are denied that feeling of participation and reality which practical classes and demonstration provide.

The WAEC chief Examiner's reports (2014) indicated that "the poor performance of students in science subjects has assumed a disturbing dimension. In the light of this, science educators need to seek suitable ways of tackling the current mass failure if they are to halt the drifts of students to arts and social science subjects". Onwioduokit (1996), looking at the position of Science Education in Nigeria observed that, a great majority of the currently serving school teachers are not qualified to teach science subjects at the secondary school level. The teachers we have who teach science subjects in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria might have been responsible for the poor performance of students in the West African Certificate Examination (WEAC) and of course the lack of progress in technology. The relevance of science subjects among the other subjects is apparent; hence the need for it to be taught properly in the secondary schools to enhance students understanding of the subject and improve their performances in both internal and external examinations is required. This can equally increase their chances for gaining admissions in to institutions of higher learning.

Ever since science subjects was first taken as a school subject in the West African School Certificate Examination in 1967, the number of schools that teach it, and the number of candidates that offer it as school candidates in the West African School Certificate Examination have witnessed a phenomenal increase. Obemeata (2000) showed that in 1967 only 10 candidates offered physics and chemistry as a science subjects in the West African School Certificate Examination which constituted 0.07% of the total number of candidates in that year. In 1969, it was 12.56%, in 1970 it was 17.16%, in 1974 it was

58.69%, in 1975, 68.52% and by 1976, it has risen to 76.9%. The proportion has continued to increase; this view has been further confirmed by more, recent entries. In 1985, 441,448 school candidates entered for economics, while in the same year, 474,534 school candidates entered for mathematics, 474,061 for English and 373,507 for Biology. In 1986, it was 511,377 for economics, 548,239 for mathematics, 548,984 for English Language and 419,568 for Biology. In 1987, there was a general decline in entries for the West African School Certificate Examination, but the relative position of economics remained unchanged. In that year entries were, economics 393,320, mathematics 422,441, English Language, 422,484 and Biology, 321,200.

The teaching of science subjects in Nigeria is characterised by many inadequacies. Nigerian secondary school science teachers have few materials on the teaching of science subjects to work with. For example, audiovisual aids for the teaching of science subjects are either not available in sufficient quantity or what is available is usually inappropriate. With the exception of a few, the science textbooks written in Nigeria are badly written, sketchy, lacking in any in-depth economic analysis and largely descriptive. They are poorly, if at all illustrated. They contain factual inaccuracies and they are on the whole badly produced. It seems they are nearly always written and produced in a hurry. Few researches have been conducted into the various aspects of science teaching in Nigeria. If the various Ministries of Education in the country do not seem to be interested in organising vacation or refresher course, workshops and conferences for secondary school science teachers then the teachers should do these themselves. It cannot be honestly disputed that they are essential and should be provided in view of the large number of secondary schools and students that teach and learn science subjects.

Secondary school science teachers should, therefore, come together to form an association of science subjects teachers. When this has been done, the association would be

in a position to announce to the nation and probably the whole world that science subjects are taught in Nigerian secondary schools and that science has become about the most popular subject in the secondary school curriculum. The WAEC chief Examiner's reports (2014) indicated that "the poor achievement of students in science subjects has assumed a dangerous dimension. In the light of this, science educators need to seek suitable ways of tackling the current mass failure if they are to halt the drifts of students to arts and social science subjects". Science subjects needs to be taught properly in the secondary schools to enhance students understanding of the subject and improve their achievement in both internal and external examinations. This can equally increase their chances for gaining admissions in to institutions of higher learning.

2.8.1 Laboratory Facilities/Materials as a Factor in Science Subjects

The science curriculum places more emphasis on guided discovery method than the traditional lecture method. This implies that each science-based secondary school should have a well-equipped laboratory for effective science instruction and realization of the objectives in view. Here the science teacher is advised to manage the laboratory resources very well. Provision of adequate physical facilities such as well equipped laboratories, workshops and classrooms will therefore go a long way in promoting effective teaching and learning of science. The present bad condition of science laboratories is quite alarming. Very few laboratories exist and even where they exist, they are virtually either empty or haphazardly filled. This situation is unhealthy for the effective teaching of science subjects.

In connection with this, Ali (2002) stresses that basic laboratory facilities in Nigerian schools are lacking. He believes that in an ideal situation, different science subjects such as Chemistry, Physics and Biology should have separate laboratories. In reality, however, the condition is very unpleasing. In some schools where science and

technology are taught, not even a single laboratory or workshop is available. Students that learn under this condition are exposed to only the theory of science rather than scientific skills. They do not acquire knowledge about discovery method, which will assist them in developing their investigative skills, which could later be applied whenever the need arises. Okebukola (2005), while expressing their views on science teaching facilities argue that, “the teaching of science and technology subjects requires the use of specialized laboratories, workshops, machines, tools and equipment. Unfortunately in Nigeria, this low-level of funding of schools makes it impossible to properly and adequately equip their workshops, studios and classrooms.

Ezeano (2002) reported that the noticeable poor performance in science subjects in Sabo Tasha and Zonkwa Education Zones, Kaduna State in external examination is caused by lack of laboratory materials which normally result to inadequate practical before the examination. Eze (2001) seems to support the above claim when he reported that physical facilities like classrooms, laboratories are abysmally inadequate, unmaintained and lack requisite apparatus and equipment. Ogunniyi (1996) and Federal Inspection Reports (2005), Studies on resources and laboratory work examined the relationship between laboratory facilities and students’ achievement and skill acquisition, the outcome of the study showed that laboratory activities in selected schools was still more or less an extension of the theoretical class rather than a place to carry out investigation due to lack of facilities. Federal Inspection Reports (2005) found a set of behaviours (manipulating apparatus, observing activity, etc) correlated strongly with manipulative skills and conduct of the experiment, while students’ attitude to laboratory work correlated strongly with manipulation of apparatus.

Okebukola (2005) while investigating the relationship between laboratory facilities and students’ laboratory skills acquisition in secondary schools discovered that many

biology, physics and chemistry students revealed poor powers of observation, poor measurement, classification and experimental skills of inferring, predicting and formulating models due to lack of laboratory facilities in some schools. Ezeano (2002) further observed that the use of instructional materials in improving learning processes has not received the attention it deserves in Nigerian schools. The neglect of the practical aspect of science subjects in schools has been blamed on such factors as inability of the school authorities to provide materials and equipments for practical work and teachers' failure to recognize the importance of practical work in science teaching. Even when laboratory materials are available, some teachers may not even put them into proper use either because of their inability to manipulate such equipments or because of lack of devotion.

Pwol (2000) reported that many schools in our country that offer chemistry as a course do not have equipment necessary for effective and efficient teaching of practical chemistry. The few available ones according to her are not properly utilized. Ndana, (2000) seems to support the above claim when he reported that one of the most striking problems of science teaching in Nigerian secondary schools today is that of inadequate science teaching materials, which arises as a result of the inability of the government to meet the cost of these materials. Inadequate materials and equipments in our schools, according to Amaefule (2001) removes the activity components of the science lesson which otherwise makes science real and experimental. In the absence of using teaching and learning resources, science teaching becomes expository and didactic in our secondary schools. He further reported that many students perceive science as a difficult subject because it involves imagination of object and concepts when laboratory materials are lacking.

Commenting on inadequate facilities for science teaching which hamper to a great extent the learning of science in secondary schools in Sabo Tasha and Zonkwa Education

Zones, Sola and Ojo (2007) said that lack of adequate science equipments makes the learning of science very uninteresting, difficult and even frustrating. When materials supplied are insufficient or inappropriate science students are offered less opportunity to make progress and receive satisfaction. It may also limit effectiveness in the teaching and learning process. From foregoing, it is clear that deficiency in practical chemistry is as a result of inadequate materials and equipments and this has influenced students negatively which leads to their poor achievement in external examination. Hence this study tries to look at the Analysis of Students' Performance in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implication to Educational Management.

Nigeria is endowed with abundant natural resources that can be used to teach science subjects effectively by a competent science teacher. Maduabum (1995) argued that if science is to be learned by doing, the teacher must look for resources beyond the classroom. A sole reliance on the inadequate school resources will increase an undesirable class participation in which the students will continue to remain mere passive participants in the learning process. Science, particularly chemistry is better learned by doing or manipulating available resources/materials.

2.9 Students' Performance in West African Senior School Certificate Examination in Vocational and Technical Subjects

Vocational and technical education is among the vital tools an individual can use to be developed. It is training for useful employment in trade, industries, agriculture, business and home making etc. The emphasis on vocation/ technical education is to prepare one for self- reliance. Vocational subjects are those designed to develop skills, abilities, understanding, attitude, work habit and appreciation encompassing knowledge and information needed by workers to enter and make progress in employment on a useful and

productive basis (Aderogba, 2012). It contributes to the production of good citizens by developing their physical, social, civic, cultural and economic competencies.

The advent of formal education in Nigeria neglected vocational and technical education entirely. Despite all efforts made to recognize it, yet little or no attention was given to it. No meaningful development was made in the area of vocational education until 1981, when the National Policy on Education was published. 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 manpower. 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.

2.9.1 Aims of Vocational and Technical Education

The National Policy on Education (2009) stated the goals and objectives of vocational and technical education as follows:

- (1) To provide trained manpower in applied science, technology and commerce particularly at sub-professional grades.
- (2) To provide technical knowledge and vocational skill necessary for agriculture, industries, commercial and economic development.

- (3) To give training and impart the necessary skills leading to the production of craftsman, technicians and other skilled personnel who will be enterprising and self-reliant.
- (4) Enable our young men and women to have intelligent understanding of the increasing complexity of technology.
- (5) To give an introduction to professional studies in engineering and other technologies.

Anyakoha (2000) emphasized that Home Economics is a unique and dynamic field of study. Its central theme is the improvement of lives of individuals, 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 (1999) also 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; rather the reverse is the case.

Federal Government wants vocational/technical education to occupy a prominent position in our secondary schools; Nigerian schools pay little or no attention to vocational/technical subjects. Teachers and students seem not to understand what it is all about and consequently, develop some contempt and aversion for the subjects. As such vocational/technical subjects remain unhealthy. Many of the occupations and trades are

regarded as ignoble and unbecoming. An average Nigerian parents does not want his son to earn a living as a full time farmer, a watch-repairer, a plumber, a house painter, for many Nigerians, these jobs are for the poor and underprivileged. The influence of parents in the development of students' interest in vocational/technical subjects cannot be over emphasized this is because parents seem 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 individual and society, is worthy and noble (Nwankwo, 1996).

The result of this is a quasi - calculated attempt to frustrate the good intention of the federal and state governments about vocation/technical education. 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 requires a guidance counsellor 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 (1999) opined that, at the heart of our society and economic problem is a national attitude that implies that vocational/technical subjects are designed for somebody else's children and is meant primarily for 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.

The skill that teachers exhibit in teaching influences the student enrolment in vocational/technical subjects. Onwuka, (2005) postulated that the method of approach is very vital in any teaching/learning situation. The way the teacher presents the subject matter to the learner may make a student like or dislike a subject. Onwuka, (2005) also

pointed the need for blending theoretical and practical work in teaching of subjects as to stimulate students' interest more, especially on vocation technical subjects. The greatest 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, 2000). 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 etc, note learning and subject centred orientation should be changed to a more practical and child centred outlook. The increase in qualities and quantities of outputs should be primarily due to improvement in the quality of the teacher. It is therefore the inclusive trust of this study to explore the influential factors that affects the secondary school students' academic performance in the study of vocational subjects in Sabo Tasha and Zonkwa Education Zones, Kaduna State.

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 requisite skills one needs to learn how to cook, farm; etc and how 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 enables the students to acquire skills, abilities essential for independent life meet up with personal and family needs more, especially in this economic difficulties.

The Federal Republic of Nigeria (2009) stated that the broad goal of the secondary school education is to prepare individuals for useful living within the society and higher education. To achieve this objective, secondary school education in Nigeria has six years

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 schools are in three groups – core subjects, vocational and non-vocational subjects. One of the vocational subjects is Home Economics. The grades analysed from the secondary schools in Kano Metropolis would reveal accurate students' performance in Home Economics.

Interest is also a significant factor in students' vocational choice. Owie (2003) advanced the position that the most important reason why a person chooses a particular career is that the person has intrinsic interest in the field. While this may be highly influenced by prior academic achievement, it is, however, expected that intrinsic interest remains a primary factor if the individual is going to be effective, satisfied and excel in the career. Where intrinsic interest is lacking, no amount of training motivation or gratification would significantly increase the person's professional effectiveness. He pointed out that a considerably large numbers of prospective teachers in this country found themselves in colleges of education not because of a basic interest in teaching but as a result of a complex combination of factors such as poor secondary school academic records, and low JAMB scores. However, a good number of students seem to prefer a career in teaching because they are intrinsically motivated and hence highly interested in the job.

The role of gender in students' vocational choice cannot be underplayed. In most parts of the country, the cultural roles expectations of men and women are known to be clearly defined. Some studies have shown significant relationship between gender and occupational aspirations, preference and choice. In the Nigeria society, boys and girls often undergo different socialization experiences and they tend to learn different gender roles and behavioural patterns and hence develop different interests. These roles and interests

later become the dominant factors in career choice. Owie (2003) study also showed that gender plays an important role in determining the career preferences of students. Other research findings which support gender differences in career preferences and choices include the works of Teijlingen and Hundley (2005) who in their study of some correlates of vocational orientations of some Nigerian secondary students discovered that significantly, more male students preferred realistic, investigative and enterprising careers than females.

2.9.2 Practical Works as a Factor in Vocational and Technical Education

Effective teaching of practical vocational and technical education, which laid emphases on bench-work in Nigerian secondary schools, is of uttermost importance to students, teachers, parents and the government. They continued by saying that vocational and technical education teaching should develop in the student the entrepreneurial skills to make him or her confident in conducting experiments and or researches. Exposure of students to practical work enables them to develop vocational skills. Dienye and Gbamanja cited in Gero (2011) were of the same view with Maduabum when they stated that practical work helps students to develop manipulative skills through opportunities offered them in enquiry, discovery, practical investigations and the handling of equipment. They further observed that practical work helps the student to learn how to generalize their way of thinking such that it is useful to them in the interpretation of phenomenon and solving societal problems. But vocational and technical educators were worried over continued poor performance of students in vocational and technical education subjects in SSCE. A number of studies conducted by vocational and technical educators on the poor performance of students pointed an accusing finger on practical work.

In the same vein, Akalonu cited in Gero (2011) opined that vocational and technical education students failed to acquire the necessary practical skills needed for success in

external examination. This view is in line with the WAEC Chief Examiner's reports (2014) which indicated among other things, that students' major weaknesses in practical vocational and technical education examination were in the areas of:

- poor description of colors of solution, precipitation, gases or odor of gases.
- Poor mathematical competences in questions requiring calculations.
- Poor interpretation of technical education data or poor deductive reasoning.
- Inability to read or measure accurately e.g. burette reading.
- Inability to relate theoretical knowledge to practical observations.
- Inability to carry out confirmatory test in qualitative analysis and so forth.

The Chief Examiner further remarked that generally candidates' performance in the vocational and technical education was poor due to poor knowledge of fundamental principles and procedures especially in qualitative analysis and lack of exposure to practical work. This consistent poor performance of students in practical vocational and technical education may be an indication of the quality of teaching they received in that aspect of secondary school vocational and technical education. This study looks forward to address this problem in our study of vocational and technical education in Sabo Tasha and Zonkwa Education Zones, Kaduna State, Nigeria.

2.10 Empirical Studies

Numerous studies in journals and textbooks that are of importance and are related to this research were reviewed, among which are: Gero (2011) conducted a study on the relationship between students' achievement in the theoretical and practical aspects of senior school certificate mock examination in chemistry in Yobe State. The study adopted

a correlational research design which specifically, compared recorded scores of students in theoretical and practical aspects of chemistry Mock Examination of 2007-2009 academic sessions. Five research questions and five hypotheses guided the study. A total of 1200 SS3 students drawn from twelve secondary schools within Potiskum education zone of Yobe state were used. The students were drawn through purposive sampling technique. Eight male schools and four female schools were used for the study. Mean and standard deviation of scores were used to answer the five research questions while Pearson Product-Moment Correlation analysis was used to test the five null hypotheses at $p < 0.05$. The result showed that students achieved better in the theoretical aspect than in the practical in the Mock Examination in Chemistry 2007 – 2009 in Potiskum Education Zone of Yobe State. It also indicated that Gender and Location had differential effects on achievement of students in Chemistry Examination. The male students achieved more significantly better than their female counterparts in both theoretical and practical aspects.

The study revealed that students in the urban area achieved more significantly better than their counterparts in the rural area in both theoretical and practical aspects. It also revealed that there were no significant relationships between students' achievement in the theoretical and the practical aspects of the examination. Thus it was concluded that students do not have enough laboratory experience to cope with the demand of the external practical examination in Chemistry. Therefore it was recommended that Chemistry teachers should give more priority to practical experiments as part of instruction in order to improve students' understanding of practically related concepts. Theoretical and practical instructions should be given side by side. The study has direct link with the present study as it used the recorded scores of students in science subject (Chemistry). It also differs in the sense that the study was conducted in Yobe State, while the present study was carried out in Sabo Tasha and Zonkwa Education Zones, Kaduna State.

Another study was carried out by Adeyemo and Babajide (2012) on the Influence of Social and Economic Disadvantage on Students' Academic Achievement in Senior Secondary Schools Physics in Lagos State. The focus of the study was to examine the influence of social and economic disadvantage on students' academic achievement in senior secondary school physics. One hundred and ten (110) students were selected randomly across two randomly selected senior secondary schools in Lagos State. From each of the randomly selected schools the researcher selected fifty five (55) physics students using the simple random sampling technique. A number of related materials both of empirical and theoretical importance were reviewed. This study adopted a simple survey research design and made use of questionnaire in facilitating data collection. The statistical description (such as mean simple percentages and standard deviation) Pearson Moment Correlation Coefficient and Chi-square method were employed for the analysis. Based on result obtained there is no significant relationship between socio-economic disadvantaged students' and their academic achievement. Also there is no significant relationship between parental influence and students' academic achievement in physics. Moreover, recommendations were made for the physics students, teachers, parents government and curriculum developer on ways to improve academic achievement and inculcating positive attitudes in students towards learning physics.

This study have some similarities with the present study, the study was a survey research and use senior secondary schools students as respondents. The dissimilarities of this study to present research is that, the study used questionnaire for data collection instrument, while the data in the present study was collected using a standard recorded WAEC result of students. The previous was conducted in Lagos State while the present study was carried out in Sabo Tasha and Zonkwa Education Zones, Kaduna State, Nigeria. The study also differed as analysis was done through Pearson Product Moment Correlation

Coefficient and Chi-square while regression analysis was used to analyse the students' scores obtained in the present study.

Aderogba (2012) conducted a study titled Laboratories and Sustainable Teaching and Learning About Senior Secondary Schools (SSS) Geography in Nigeria. The objective of this study was to look at the SSS Geography syllabus and suggest materials for improvisation of teaching aids. Geography of Ogun state was reviewed. WAEC, NECO and UTME syllabus were perused and specific topics of teaching and learning identified. The WAEC syllabus was tabulated into six parts and notes produced on each. Using the notes, materials from the local environment were suggested and procedures for their uses described. Students result in WAEC and NECO were collected and analysed using regression analysis. Findings show that there is no aspect that absolutely lack materials for effective teaching and learning. Extensive use of chalk boards, chalk of various colours, pencils, Atlas maps and sketches of maps were suggested. Field works, Field Visits, Excursions and others were suggested as complementary to studying and fiddling with materials. The work also suggested the use of School Van, ICT, Home Works, Projects, Assignments, Geography Laboratory and Meteorological Garden as imperative. The first two years may be traumatic and cumbersome but subsequent years will be building on the previous experiences and materials.

This study is similar to the present research in the sense that data for the study were collected from students WAEC and NECO result which was used for the present study. The study was different as it was conducted in Ogun state, while the present study was carried out in Sabo Tasha and Zonkwa Education Zones, Kaduna State, Nigeria.

Jegade (2007) conducted a study on Students' anxiety towards the learning of Chemistry in some Nigerian secondary schools. The objective of the study was to find out

students' anxiety towards the learning of chemistry, identify the factors that cause the anxiety, examining the disposition of sex towards the learning of chemistry and suggests ways to increase their taste towards the learning of the subjects. Data for the study was obtained by the administering a questionnaire to three hundred (300) respondents involved in the study. The data obtained were analyzed using frequency counts, percentages and stanine test. The findings of the study revealed that the students, whether male or female, urban or rural based, show great anxiety towards the learning of chemistry and anxiety is higher in female and rural based students than male or female, urban or rural students. The cause of students' anxiety as revealed by the study include: wide coverage of the syllabus, low awareness of career opportunities, their teacher and his teaching methods and lack of teaching aids/laboratory. This study was similar to the present research as secondary school students were used for the study. It was different because questionnaire was used to collect data for the study while the present study used the recorded scores of students in WAEC from 2011 to 2015.

Okebukola (2005) also examined the influence of selected factors on students' performance in practical chemistry. Twelve factors were extracted by principal components analysis. These factors accounted for 64% of the variance of the scores in practical chemistry when stepwise multiple regression analysis was applied on the data. Students' participation in laboratory activities made the greatest independence contribution to the variance in performance (0.16), followed by students' attitude to chemistry as a subject (0.11), teachers attitude to chemistry laboratory work (0.10), and availability of chemistry laboratory materials (0.08), school location, sex of the students, and students' fear of explosion and of damaging expensive equipment made non-significant contributions. The study has direct relationship with the present study in the area of topic and statistical tool for data analysis as stepwise multiple regression analysis was applied for data analysis,

which was used in the present study. The study also differed as only students scores in practical chemistry was used, while the present study used the students' scores in all the subjects to determine their performance.

A research was conducted by Ogunbanwo (2014) titled Analysis of students' performance in west African senior certificate examinations in boarding and day secondary schools in Kano Metropolis, Nigeria (2005-2011). It comparatively ascertains the relationship in the performance of Boarding and Day Senior Secondary Schools in Kano Metropolis. As a descriptive research, the study population comprised of all the twelve (12) Boarding Senior Secondary Schools and twenty-six (26) day Senior Secondary Schools in Kano Metropolis, Kano State. The researcher however used WAEC grading of candidates, who scored A1-C6 permissible credit passes, in senior secondary boarding and day schools which have presented candidates for WAEC in the last ten years. The method of sample selection adopted was by random sampling technique from the twenty six day schools. The instrument used to collect data for the study was an inventory titled Secondary Schools Academic Performance Inventory (SSAPI). The data collected were analysed using simple percentages with frequency distribution tables showing the extent of degree to measure students' performance and mean score to estimate the relationships between the variables of the study. It was found that the performance of students in the Day Senior Secondary Schools in West African Senior Secondary Certificate Examinations (WASSCE) with particular reference to English, Mathematics, Sciences, and Home Economics for the years 2005 to 2011 in Kano Metropolis of Kano State was low. There was no year where the performance level of Day Senior Secondary Schools in Kano Metropolis reached 50% in any subject from 2005-2011.

The study revealed that there was a significant difference between a student being a boarder and a day student. The low level performance could be attributed to congestion of

students in classes, inadequate inspection by the State Ministry of Education, inadequacy of facilities and automatic promotion. The implication of running day system of education in Kano Metropolis therefore is that many students might not be qualified for admission into higher institutions in the country. In the same vein, the implication of running boarding system of education in Kano Metropolis therefore is creating a healthy teaching/learning climate that is conducive to higher students test scores, the procurement and disbursement of instructional materials, provision of adequate and modern equipment and library facilities coupled with enough co-curricular activities. It was recommended that the State Ministry of Education should provide more infrastructural facilities to decongest large classrooms, provide more regular inspection to Schools, and reverse the system of automatic promotion in all state schools in Kano with the view to maintaining quality. Parents are urged to be part and parcel of the school system by lending a helping hand to government.

The study is related to this research because it analysed the students' performance in West African Senior Certificate Examinations which the present study is all about, random sampling technique was used which was used in the present study. Also, the study is related as WAEC grading of candidates, who scored A1-C6 permissible credit passes, in senior secondary was used which was used in this study. Despite the similarities, the study differed as it was conducted in Kano state (2005-2011), while the present study was carried out in Sabo Tasha and Zonkwa Education Zones, Kaduna State, Nigeria from 2011 to 2015.

Bolu-Steve, Adegoke and Biobaku (2014) investigated the perception of factors responsible for failure in West Africa Senior School Certificate Examination (WASSCE) by secondary school students in Kwara State, Nigeria. The descriptive survey research design was used by the researchers for the study. The researchers randomly selected two

hundred and ten (210) senior secondary school students from the three senatorial districts of Kwara State. The questionnaire titled “Factors Responsible for Failure in WAEC Examinations Questionnaire” (FRFWEQ) was administered by the researchers with the help of trained assistance to the respondents in order to elicit information from the sampled respondents. The items of the questionnaire were content-validated and test re-test method was used to determine the reliability coefficient of 0.73. The perceived major factors responsible for failure in WAEC examinations by the respondents include: non-availability of updated textbooks, unconducive environment for learning, and reliance on examination malpractice among others. Simple percentages employing pictorial charts were used to analyse the demographic data, while t-test and Analysis of Variance were used to analyse the four generated hypotheses. There were no significant differences found in the perception of factors responsible for failure in WAEC examinations by secondary school students in Kwara State on the basis of age, gender and religious affiliation.

However a significant difference was found in the perception of factors responsible for failure in WAEC examinations by secondary school students in Kwara State on the basis of school type. As such, the government should ensure that secondary schools are well equipped to prepare students ahead of public examinations especially WAEC, while qualified and experienced teachers should be recruited to teach students preparing for the examinations. This study is related to the present study because secondary school students were used for the study and the study was on the performance of students in WAEC examinations which the present study was carried out on. Hence, the study differed as questionnaire was used for data collection and t-test and Analysis of Variance were used to analyse the four generated hypotheses, while the present study used the recorded WAEC result of students and data was analysed using multiple regression analysis.

Ajao and Awogbemi (2012) carried out a study on the Correlational Analysis of Students' Achievement in WAEC and NECO Mathematics in Osun State, Nigeria. The objective of the study was to determine the relationship between WAEC and NECO mathematics results. Data for the study were collected from four selected secondary schools in Ifedayo Local Government Area of Osun State, Nigeria using Simple Random Sampling. The Scope of data spans through the period 2000-2004. The correlation coefficients (r) of the relationship between students' performance in WAEC mathematics and NECO mathematics in various school were calculated. Findings revealed that; there was significant positive relationship between students' achievement in WAEC and NECO mathematics in school "A" for the year 2000, 2002 and 2004; there was significant positive relationship between students' achievement in WAEC and NECO mathematics in school "B" for the year 2000 and 2004; there was significant positive relationship between students' achievement in WAE and NECO mathematics in school "C" for the years 2000, 2003 and 2004; and there was significant positive relationship between students' achievement in WAEC and NECO mathematics in school "D" for the years 2001, 2003 and 2004.

In view of the finding, recommendations were made in an attempt to improve students' achievement in both WAEC and NECO mathematics: Students should develop more interest in sitting for either of the two examinations since they were found to be the same or equivalent; Mathematics teachers and school authorities should encourage the students to prepare adequately for both examinations; Students who perform very well in WAEC mathematics should be able to perform well in NECO mathematics so as to confirm the notion that the two bodies produce equivalent results; and Parents should encourage their children to put more efforts in studying to reduce the high rate of failure in the two examinations. This study has similarity with the present study, because it analysed

students' achievement in WAEC and also used WAEC recorded scores. The differences is that, it correlate students' achievement in WAEC and NECO Mathematics in Osun State, while the present study looked into the Analysis of Students' Performance in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implication to Educational Management.

Omoosewo (2003) carried out a research on the Relationship between Senior School Physics Students' Perceptions of their Physics Teachers' Effectiveness and the Performance in Physics in Ilorin metropolis. The objectives of the study was to correlate between performance and perception access of physics students; determine the strength of relationship between performance and perception scores of female physics students; and find out if there is any relationship between perception and performance scores of the male physics students. A total of one hundred and seventy-seven (177) Senior Secondary School year 3 physics students of six (6) randomly selected secondary schools in Ilorin metropolis took part in the study. The instrument used was a designed questionnaire labeled 'Profile of Dimensions of Effective Physics Teaching'. The students' continuous assessment scores were correlated with perceptions of students about their physics teachers' effectiveness and the students' performance in physics. This finding has implication for physics teaching. The physics teacher must take cognizance of the specific needs of pupils in the planning and delivery of his/her lesson and such leader should devote substantial time to meeting these needs. This is because it has been found from this study and others that have been reviewed that meeting such needs have positive relationship with students' academic performance. The differences that existed between the previous study and the present research is that, the previous study only determine the relationship between senior school physics students' perceptions, while the present study analysed students' performance in senior secondary school examination (WAEC). The study used a designed questionnaire

labeled 'Profile of Dimensions of Effective Physics Teaching, while the present study used WAEC recorded scores.

Obinne (2011) conducted a study on Psychometric Analysis of Two Major Examinations in Nigeria: Standard Error of Measurement. This study deals with the psychometric analysis of the two major examinations conducted in Nigeria by NECO and WAEC. The objective was to compare the standard error of measurement of Biology examinations conducted from 2000 – 2002 using the one-parameter model of Item Response Theory (IRT). Standard error of measurement (SEM) is commonly used to produce confidence interval and it is an estimate of how much error there is in a test. Instrumentation research design was used for this study. Benue State, Nigeria was the study area. The population for the study comprised all year three (SSIII) senior secondary school students who enrolled for May/June/July 2006 Biology senior secondary school certificate examination of NECO and WAEC in the three education zones of Benue State. The sample for the study was one thousand eight hundred (1800) students. Multi-stage stratified sampling technique was used to get this sample. NECO and WAEC 2000 – 2002 objective Biology questions were the instruments for the study. The maximum likelihood estimation techniques of the BILOG MG Computer Programme and the SPSS were used for data analysis. The results showed significant differences in the SEM of Biology examinations conducted by NECO and WAEC in 2000, 2001 and 2002. This implied that Biology examinations conducted by NECO had smaller SEM (high reliability) than those of WAEC. It has recommended that IRT analysis should be employed by Nigerian Examination bodies. This study is related to the present research as it involves analysis of students' performance in WAEC, but the dissimilarities that existed is that, the study was conducted in Benue State while the present study was carried out in Sabon Tasha and Zonkwa Education Zones, Kaduna State. Also Multi-stage stratified sampling technique

was used and objective Biology questions were used as the instruments for the study, while WAEC recoded scores was used as the instrument for the present study.

Oke and Maliki (2009) carried out a research on the effect of school ownership on candidates' performance at the West African Senior School Certificate Examination (WASSCE) in Nigeria. The aim of the study therefore was to investigate the ownership of schools as a determinant of candidates' performance with a view to identifying the factors inherent in the two types (public and private) which promote or hinder candidates' performance in the West African Senior School Certificate Examination (WASSCE). Adopting the cross-sectional design, two sets of questionnaires tagged 'Teachers Questionnaire' (TQ) and 'Students Questionnaire' (SQ) as well as a School Facilities Inventory (SFI) were used to elicit responses from 1,178 students, 574 teachers and 60 principals. Descriptive statistics was used to analyse the data while Chi-square analysis was done to see if there was a significant difference in the attitude of respondents towards the variables under study. Correlation analysis was also done to see if there was any significant relationship between school ownership and candidates' performance in WASSCE in Nigeria. In addition, regression was used to depict the paths and the contribution of instructional facilities, years of teaching experience, productive engagement of students and teachers' motivation to performance. The results showed that although candidates in private schools performed better than those in public schools, school ownership was not the sole determinant of candidates' performance; a great deal depended on access to instructional facilities. The findings were discussed and it was recommended, among others, that the type of facilities provided in Federal Government Colleges and State Model Schools should be extended to other state public schools in the country in order to improve the performance of students in WASSCE. The similarity of the previous study to the present research is that, the study was conducted in order to

determine the performance of students in WASSCE which the present study is centred on. Similarly, the regression analysis was done in the previous study which was done in the present research. The differences that existed is that, the study was conducted at WAEC headquarters, Lagos, while the present study was carried out in Kaduna State. The previous study used two sets of questionnaires tagged ‘Teachers Questionnaire’ (TQ) and ‘Students Questionnaire’ (SQ) as well as a School Facilities Inventory (SFI) were used to elicit responses, while the WAEC recorded scores was used to gather data in the present study.

2.11 Summary

From the various literatures on the study, it showed clearly that the various factors which aid or hinders students’ performance in West African Senior School Certificate Examination in English Language, Mathematics, Arts and Social Science Subjects, Science Subjects, and Vocational and Technical Subjects. The review also pointed out to the fact that laboratory facilities/materials is a factor in science subjects teaching. The aims of Vocational and Technical Education were discussed. From the foregoing, practical works was seen as a factor in Vocational and Technical Education. In the empirical studies, work done by Gero (2011), Adeyemo and Babajide (2012), Aderogba (2012), Jegede (2007), Okebukola (2005), Ogunbanwo (2014), Bolu-Steve, Adegoke and Biobaku (2014), Ajao and Awogbemi (2012), Omosewo (2003), Obinne (2011), and Oke and Maliki (2009) were reviewed where gaps were identified in the area of title, methodology and statistical tool used. All the work reviewed were survey research design which is the same with the present study. Also, most of the studies reviewed used questionnaire as the research instrument and none of the studies was conducted in Kaduna State. Hence, in view of these gaps, the present study was carried out to analyse students’ performance in West African School Certificate Examination WAEC in Sabon Tasha and Zonkwa Education Zones, Kaduna State (2011-2015): Implication to Educational Management.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter described the methodology and procedures that were used in conducting the research. Thus, the Research methodology was carried out under the following sub-topics:

- 3.2 Research Design;
- 3.3 Population;
- 3.4 Sample and Sampling Techniques;
- 3.5 Instrumentation;
- 3.6 Procedure for Data Collection; and
- 3.7 Procedure for Data Analysis

3.2 Research Design

This study employed ex-post facto research design in order to analyse Students' Performance in Senior Secondary School Examination (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria from 2011 to 2015. Ex-post facto research is a method of teasing out possible antecedents of events that has happened and cannot, therefore, be controlled, or manipulated by the investigator. According to Barton and Baumann (2004), ex-post facto research design provides a way in which to gather information on a large subset group of individuals and then make inferences to much larger groups.

3.3 Population

The population of this study consisted of all the senior secondary school students presented for Senior Secondary School Examination (WAEC) from 2011 to 2015 in all the seventy one (71) public secondary schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (see appendix A). Hence, the population according to Kaduna State Ministry of Education (2016), is presented in Table 1:

Table 1: Students Population

S/N	Year	Sabon Tasha Zone		Zonkwa Zone	
		Total Entry	Total Sat	Total Entry	Total Sat
1	2011	6287	6262	1822	1817
2	2012	5791	5782	1743	1738
3	2013	6661	6643	1650	1646
4	2014	4923	4923	1516	1516
5	2015	6314	6305	2675	2670
Total	5	29976	29915	9406	9387

Source: Sabon Tasha and Zonkwa Education Zones, Kaduna State Ministry of Education (2016).

Table 1 presented the population of the study according to Kaduna State Ministry of Education (2016). It showed the total number of students that were enrolled and sat for the exam in each of the year.

3.4 Sample and Sampling Techniques

In order to ensure a representative sample in the study, cluster sampling technique was used to select two Zones (Sabon Tasha and Zonkwa Education Zones). Hence, the sample sizes for Sabon Tasha Education Zone comprised 1177, 1296, 1177, 1058 and 1046 for the year 2011, 2012, 2013, 2014 and 2015 respectively while the sample sizes for Zonkwa Education Zone comprised 414, 404, 377, 410 and 428 for the year 2011, 2012, 2013, 2014 and 2015 respectively. A total of twenty seven (27) public secondary schools that is, fourteen (14) from Sabo Tasha and thirteen (13) from Zonkwa Education Zones were randomly sampled from the entire seventy one (71) public secondary schools in

Sabon Tasha and Zonkwa Education Zones, Kaduna State, and their WAEC result in English Language, Mathematics, Physics, Government and Commerce from 2011-2015 was used as data in the study. These sample sizes represented thirty percent (30%) of the entire population, which according to the Research Advisors (2006), and Sambo (2008) is considered adequate for a population of this magnitude. Table 2 therefore presents the sampled schools.

Table 2: Sample Distribution

S/N	Schools	2011		2012		2013		2014		2015	
		Pop.	Sam.	Pop.	Sam.	Pop.	Sam.	Pop.	Sam.	Pop.	Sam.
1	GSS Q/Amina	322	97	262	79	298	89	292	88	308	92
2	GSS K/Magani	200	60	293	88	290	87	240	72	246	74
3	GSS Gwagwada	421	164	459	138	235	71	295	89	298	89
4	GSS M/Kajuru	273	81	257	77	234	70	135	41	145	44
5	GSS D/Ngimah	160	48	180	54	170	51	170	51	143	43
6	GSS Jere	294	88	285	86	335	101	400	120	335	101
7	GSS Barnawa	377	113	305	92	290	87	241	72	242	73
8	GSS S/Tasha	350	105	590	177	380	114	350	105	202	61
9	GSS Katari	355	107	291	87	357	107	350	105	380	114
10	GSS Iddah	300	90	299	90	299	90	299	90	336	101
11	GSS Narayi	126	38	97	29	119	36	91	27	105	32
12	GSS D/Tafa	218	65	259	78	200	60	160	48	199	36
13	GSS U/Romi	176	52	316	95	258	77	207	62	319	96
14	GSS Kakuri	230	69	420	126	456	137	293	88	299	90
Total	Sabon Tasha Zone	3802	1177	4313	1296	3921	1177	3523	1058	3557	1046
1	Zango Kataf	97	29	186	56	107	32	128	38	87	26
2	Fadan Kamanton	118	35	103	31	121	36	105	32	91	27
3	GGSS Zonkwa	100	30	77	23	67	20	51	15	52	16
4	GGC Zonkwa	136	41	129	39	109	33	101	30	139	42
5	TBMC Samuru	55	17	90	27	48	14	78	23	57	17
6	GSS Zonkwa	109	33	75	23	52	16	31	9	24	7
7	GSS F/Kaje	81	24	57	17	31	9	38	11	50	15
8	GSS K/Ikulu	60	18	85	26	120	36	120	36	131	39
9	GSS Madakiya	126	38	151	45	116	35	134	40	179	54
10	GSS Samuru Kataf	92	28	87	26	107	32	128	38	186	56
11	GSS Mabushe	145	44	135	41	234	70	257	77	272	82
12	GSS Jankasa	95	29	82	25	66	20	89	27	99	30
13	GSS Kurimi Masara	161	48	82	25	81	24	79	34	57	17
Total	Zonkwa Zone	1375	414	1339	404	1259	377	1339	410	1424	428

Source: Sabon Tasha and Zonkwa Education Zones, Kaduna State Ministry of Education (2016).

Table 2 showed the population and sampled size of the students sampled as used in the study.

3.5 Instrumentation

The recorded WASSCE results of students in English Language, Mathematics, Physics, Government and Commerce who sat for the examination from 2011-2015 formed the instrument for data collection in the study. This instrument developed by WAEC was used to generate data on students' performance in subjects mentioned. These subjects are core in the Nigerian secondary school curriculum (Federal Republic of Nigeria, 2009). The pattern of grading candidates score in the examination is such that the distinction grade is represented by A1, B2, and B3 the credit grade is represented by C4, C5 and C6 the passes grade is represented by D7 and E8 while the failing grade is represented by F9 (WAEC, 2014). The distinction and credit grade referred to in this study are the only requisite qualification for admission into all tertiary institutions in Nigeria.

3.6 Procedure for Data Collection

Letter of introduction was collected from the Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria to the West African Examination Council, Kaduna Zonal Office, Kaduna State. This was to enable the researcher have access to results of students from the sampled schools. The results of all the candidates in the sampled twenty seven (27) public secondary schools who sat for the WASSCE between 2011 to 2015 in English Language, Mathematics, Physics, Government and Commerce was collected from the Computer Services Division of WAEC, Kaduna Zonal Office, Kaduna State.

3.7 Procedure for Data Analysis

The data collected from the recorded WASSCE results of students in English Language, Mathematics, Physics, Government and Commerce who sat the examination from 2011-2015 were subjected to statistical analysis for appropriate interpretations. Both descriptive and inferential statistical tool was used in the analysis of data. The descriptive

statistics of frequency and percentage was used to obtain answers to the research questions, while at inferential level, Simple Regression Analysis was used to test the hypotheses at 0.05 level of significance. The data was analysed in the Statistical Package for Social Science (SPSS) version 21.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter discussed the data obtained from the recorded WASSCE results of students in English Language, Mathematics, Physics, Government and Commerce who sat for the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The data collected was analysed using descriptive statistics in the form of frequency and percentage to answer the research questions while Simple Regression Analysis was used to test the hypotheses at 0.05 level of significance. The data was analysed in the Statistical Package for Social Science (SPSS) version 21.

4.2 Answer to Research Questions

The research questions raised in the study were answered using frequency and percentage. This section presents the summary of analysis done on each of the research questions as follows:

Research Question One: What is the performance of students in English Language in Senior Secondary School Examination in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State?

Table 3: Frequency and percentage of students with credit and above in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Year	Sabon Tasha Zone		Zonkwa Zone	
	f	%	f	%
2011	898	76.3	182	44.0
2012	991	76.5	125	30.9
2013	846	71.9	194	51.5
2014	865	81.8	189	46.1
2015	941	90.0	217	50.7
Cumulative Percentage		79.3		44.6

Table 3 showed the frequency and percentage of students who had credit and above in English language in West African school Certificate examination WAEC (2011-2015) in Sabon Tasha Education Zone. The table showed that the performance of students regressed from 76.3% and 76.5% in 2011 and 2012 to 71.9% in 2013 but increased to 81.8% and 90.0% in 2014 and 2015 respectively. However, the performance level of students in English language in West African school Certificate Examination WAEC (2011-2015) in Zonkwa, though was low and regressed in each year. For instance, students' performance was 44.0%, 30.9%, 51.5%, 46.1% and 50.7% in 2011, 2012, 2013, 2014 and 2015 respectively. Inferring from the table, the results is in favour of the performance of students in Sabon Tasha which is greater than the performance of students in Zonkwa Education Zone. However, the performance level of students in Zonkwa Education Zone in West African school Certificate examination WAEC from 2011 to 2015 only reached 50% in 2013 and 2015.

Research Question Two: What is the performance of students in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State?

Table 4: Frequency and percentage of students with credit and above in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Year	Sabon Tasha Zone		Zonkwa Zone	
	F	%	F	%
2011	675	57.3	212	51.2
2012	950	73.3	89	22.0
2013	925	78.6	263	69.8
2014	645	61.0	202	49.3
2015	888	84.9	278	65.0
Cumulative Percentage		71.0		51.5

Table 4 showed that the performance of students in Mathematics in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone increased from the initial 57.3% in 2011 to 73.3% in 2012 and 78.6% in 2013, but regressed to 61.0% in 2014 and later in 2015 increased to 84.9%. However, the performance level of students in Mathematics in West African school Certificate Examination WAEC (2011-2015) in Zonkwa Education Zone regressed in each year. For instance, students' performance was 51.2%, 22.0%, 69.8%, 49.3% and 65.0% in 2011, 2012, 2013, 2014 and 2015 respectively. Inferring from the table, the results is in favour of the performance of students in Sabon Tasha which is greater than the performance of students in Zonkwa Education Zone.

Research Question Three: What is students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State?

Table 5: Frequency and percentage of students with credit and above in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Year	Sabon Tasha Zone		Zonkwa Zone	
	F	%	F	%
2011	538	45.7	158	38.2
2012	442	34.1	178	44.1
2013	486	41.3	45	11.9
2014	483	45.7	135	32.9
2015	650	62.1	177	41.4
Cumulative Percentage		45.8	33.7	

Table 5 showed that students' performance in Physics in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone regressed from 45.7% in 2011 to 34.1% in 2012, but increased to 41.3%, 45.7% and 62.1% in 2013, 2014 and 2015 respectively. However, students' performance in Physics in senior secondary school examination in WAEC (2011-2015) in Zonkwa Education Zone, regressed in each year. For instance, students' performance was 38.2%, 44.1%, 11.9%, 32.9% and 41.4% in 2011, 2012, 2013, 2014 and 2015 respectively. Inferring from the table, students' performance in Physics in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and discouraging. There was no year in which the performance level of students in Zonkwa reached 30% in West African school Certificate Examination WAEC from 2011 to 2015.

Research Question Four: What is students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State?

Table 6: Frequency and percentage of students with credit and above in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Year	Sabon Tasha Zone		Zonkwa Zone	
	F	%	F	%
2011	895	76.0	290	70.0
2012	1119	86.3	188	46.5
2013	1058	89.9	316	83.8
2014	759	71.7	305	74.4
2015	749	71.6	338	79.0
Cumulative Percentage		79.1	70.7	

Table 6 showed that students' performance in Government in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and high. This is evidenced in students' scores in the subject as students in Sabon Tasha Education Zone had the following percentage 76.0%, 86.3%, 89.9%, 71.7% and 71.6% in 2011, 2012, 2013, 2014 and 2015 respectively. However, students' performance in Government in West African school Certificate Examination WAEC (2011-2015) in Zonkwa was 70.0%, 46.5%, 83.8%, 74.4% and 79.0% in 2011, 2012, 2013, 2014 and 2015 respectively. Although students' performance in Government in West African school Certificate Examination WAEC (2011-2015) in Zonkwa in 2012 regressed to 46.5%, but inferring from the table, students' performance in Government in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and encouraging.

Research Question Five: What is the performance of students in Commerce in West African School Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State?

Table 7: Frequency and percentage of students with credit and above in Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Year	Sabon Tasha Zone		Zonkwa Zone	
	F	%	F	%
2011	591	50.2	129	31.2
2012	668	51.5	86	21.3
2013	513	43.6	44	11.7
2014	581	54.9	52	12.7
2015	509	48.7	141	32.9
Cumulative Percentage		49.8	22.2	

Table 7 showed that the performance of students in Commerce in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and discouraging. For instance, students in Sabon Tasha Education Zone had the performance scores of 50.2%, 51.5%, 43.6%, 54.9% and 48.7% in 2011, 2012, 2013, 2014 and 2015 respectively. However, the performance of students in Commerce in West African school Certificate Examination WAEC (2011-2015) in Zonkwa regressed from 31.2% in 2011 to 21.3% and 11.7% in 2012 and 2013 respectively, but increased to 12.7% and 32.9% in 2014 and 2015 respectively. Even though there was general low performance in the two Education Zones, but inferring from the table, the results is in favour of the performance of students in Sabon Tasha which is greater than the performance of students in Zonkwa Education Zone. There was no year in which the performance level of students in Zonkwa reached 50% in West African school Certificate Examination WAEC from 2011 to 2015.

4.3 Hypotheses Testing

In this study, five hypotheses were formulated in a null form. The following are tables which show the result of the null hypotheses tested at 0.05 level of significance.

Hypothesis One: There is no significant difference in students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The data obtained from the recorded WASSCE results of students in English Language who sat for the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State were statistically analysed using Simple Regression Analysis. The summary of hypothesis tested is presented in Table 8.

Table 8: Summary of Simple Regression Analysis on students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Model	B	Std. Error	T	R-crit	α	R-cal	R ²	Adjusted R ²	Sig.
Sabon Tasha	1.436	.245	6.040						
Zonkwa	1.110	0.92	1.761	.088	0.05	.563	507	.492	.000

Table 8 showed that there was significant difference in students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The table showed that the R-cal of .563 was greater than R-crit of .088 while the p-value of .000 was less than 0.05 level of significance. Consequently, the hypothesis which says that there was no significant difference in students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State was rejected.

Hypothesis Two: There is no significant difference in students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The data obtained from the recorded WASSCE results of students in Mathematics who sat the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State were statistically analysed using Simple Regression Analysis. The summary of hypothesis tested is presented in Table 9.

Table 9: Summary of Simple Regression Analysis on students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Model	B	Std. Error	T	R-crit	α	R-cal	R ²	Adjusted R ²	Sig.
Sabon Tasha	2.746	.319	3.306						
Zonkwa	1.575	0.106	1.026	.0731	0.05	.835	410	.290	.003

Table 9 showed that there was significant difference in students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The table showed that the R-cal of .835 was greater than R-crit of .0731 while the p-value of .003 was less than 0.05 level of significance. Consequently, the hypothesis which says that there was no significant difference in students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State was rejected.

Hypothesis Three: There is no significant difference in students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The data obtained from the recorded WASSCE results of students in Physics who sat the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State were statistically analysed using Simple Regression Analysis. The summary of hypothesis tested is presented in Table 10.

Table 10: Summary of Simple Regression Analysis on students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Model	B	Std. Error	T	R-crit	α	R-cal	R ²	Adjusted R ²	Sig.
Sabon Tasha	2.951	.927	3.041						
Zonkwa	1.927	0.041	2.182	.0390	0.05	.682	495	.614	.001

Table 10 showed that there was significant difference in students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The table showed that the R-cal of .682 was greater than R-crit of .0390 while the p-value of .001 was less than 0.05 level of significance. Consequently, the hypothesis which says that there was no significant difference in students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State was rejected.

Hypothesis Four: There is no significant difference in students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The data obtained from the recorded WASSCE results of students in Government who sat the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State were statistically analysed using Simple Regression Analysis. The summary of hypothesis tested is presented in Table 11.

Table 11: Summary of Simple Regression Analysis on students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Model	B	Std. Error	T	R-crit	α	R-cal	R ²	Adjusted R ²	Sig.
Sabon Tasha	2.588	1.001	1.047						
Zonkwa	0.817	0.125	0.958	.0511	0.05	.544	497	.550	.000

Table 11 showed that there was significant difference in students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The table showed that the R-cal of .544 was greater than R-crit of .0511 while the p-value of .000 was less than 0.05 level of significance. Consequently, the hypothesis which says that there was no significant difference in students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State was rejected.

Hypothesis Five: There is no significant difference in students' performance in Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The data obtained from the recorded WASSCE results of students in Commerce who sat the examination from 2011-2015 in Sabon Tasha and Zonkwa Education Zones, Kaduna State were statistically analysed using Simple Regression Analysis. The summary of hypothesis tested is presented in Table 12.

Table 12: Summary of Simple Regression Analysis on students' performance in Commerce West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State

Model	B	Std. Error	T	R-crit	α	R-cal	R²	Adjusted R²	Sig.
Sabon Tasha	3.022	.892	2.547						
Zonkwa	2.751	0.074	1.018	.0482	0.05	.677	.599	.732	.002

Table 12 showed that there was significant difference in students' performance in Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The table showed that the R-cal of .677 was greater than R-crit of .0482 while the p-value of .002 was less than 0.05 level of significance. Consequently, the hypothesis which says that there was no significant difference in students' performance in Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State was rejected.

4.4 Summary of Hypothesis Testing

S/N	Ho Statement	Statistical tool used	Result	Level of sig.	Decision
Ho ₁	There is no significant difference in students performance in English Language in West African Certificate Examination (WAEC) 2011 – 20015 in Sabon Tahsa and Zonkwa Education Zones Kaduna State.	Simple Regression Analysis	R-critical .088, while P-value .563	0.05	Ho ₁ was rejected this means that there is differences in students performance in both Sabon Tahsa Education Zones.
Ho ₂	There is no significant difference in students performance in English Language in West African Certificate Examination (WAEC) 2011 – 20015 in Sabon Tahsa and Zonkwa Education Zones Kaduna State.	Simple Regression Analysis	R-critical .0731, while P-value is .835	0.05	Ho ₂ was rejected this means that there is differences in students performance in both Sabon Tahsa Education Zones.
Ho ₃	There is no significant difference in students performance in English Language in West African Certificate Examination (WAEC) 2011 – 20015 in Sabon Tahsa and Zonkwa Education Zones Kaduna State.	Simple Regression Analysis	R-critical .0390, while P-value is .682	0.05	Ho ₃ was rejected this means that there is differences in students performance in both Sabon Tahsa Education Zones.
Ho ₄	There is no significant difference in students performance in English Language in West African Certificate Examination (WAEC) 2011 – 20015 in Sabon Tahsa and Zonkwa Education Zones Kaduna State.	Simple Regression Analysis	R-critical .0511, while P-value .544	0.05	Ho ₄ was rejected this means that there is differences in students performance in both Sabon Tahsa Education Zones.
Ho ₅	There is no significant difference in students performance in English Language in West African Certificate Examination (WAEC) 2011 – 20015 in Sabon Tahsa and Zonkwa Education Zones Kaduna State.	Simple Regression Analysis	R-critical .6482, while P-value is .677	0.05	Ho ₅ was rejected this means that there is differences in students performance in both Sabon Tahsa Education Zones.

4.5 Summary of Major Findings

The following were the major findings of the study:

1. Students' performance in English Language in West African School Certificate Examinations WAEC (2011-2015) in Sabon Tasha Education Zone was higher than their counterparts in Zonkwa Education Zone;
2. The general performance level of students in Mathematics in West African School Certificate Examinations WAEC (2011-2015) in Sabon Tasha Education Zone was higher than their counterparts in Zonkwa Education Zone;
3. Students' performance in Physics in West African School Certificate Examinations WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and discouraging;
4. Students' performance in Government in West African School Certificate Examinations WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and encouraging; and
5. The performance of students in Commerce in West African School Certificate Examinations WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor.

4.6 Discussion of the Findings

Findings on research question and hypothesis one revealed that students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. This could be explained in terms of the grades obtained in the subject. For instance, the cumulative score percentage for students' performance in WAEC (2011-2015) in English Language in Sabon Tasha Education Zone was 79.3% which was higher than the cumulative score percentage of 44.6% for students' performance in WAEC (2011-2015) in English Language in Zonkwa Education Zone. Thus, hypothesis one revealed that there was significant difference in students' performance in English Language in Senior Secondary School Examination in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. Considering the results of students in West African Senior School Certificate Examination in Zonkwa Education Zone, a fall in performance in public examination core subject has been recorded in many secondary schools in Kaduna State. Although, the performance level of students in the examinations was low in Zonkwa Education Zone, the performance of students in Sabon Tasha Education Zone was better. The low level performance in the examinations in Zonkwa Education Zone might be attributed to what Aderogba (2012) described as absolutely lack of materials for effective teaching and learning, extensive use of talk and chalk method, poor staffing in schools, frequent and early withdrawal of students from primary to secondary education, laziness on the account of many students, poor preparation of work in respect of many teachers, societal wrong values, truancy and general indiscipline.

Moreover, the low performance level in West African Senior School Certificate Examination (2011-2015) found in Zonkwa Education Zone agreed with the findings of Adeyemo and Babajide (2012), who observed a decline in students' performance in West

African Senior School Certificate Examinations in other States of the country and attributed this to the inadequacy of facilities in schools. The study also showed that schools with high standards and prescribed audio-visual instructional materials did performed better than the schools without adequate instructional materials.

Findings on research question and hypothesis two revealed that the general performance level of students in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. This is evidenced in the grades obtained in the subject. For instance, the cumulative score percentage for students' performance in WAEC (2011-2015) in Mathematics in Sabon Tasha Education Zone was 71.0% which was higher than the cumulative score percentage of 51.5% for students' performance in WAEC (2011-2015) in Mathematics in Zonkwa Education Zone. However, hypothesis two revealed that there was significant difference in students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. Considering the results of students in West African Senior School Certificate Examination in Zonkwa Education Zone, a fall in performance in public examination core subject has been recorded in many secondary schools in Kaduna State.

The low level performance of students in the examinations in Zonkwa Education Zone might be attributed to what Jegede (2007) referred to as great anxiety towards the learning of Mathematics and anxiety is higher in rural based students than urban students. The cause of students' anxiety as revealed by the study include: wide coverage of the syllabus, low awareness of career opportunities, teacher and his teaching methods and lack of teaching materials. However, the low performance level in West African School Certificate Examination (2011-2015) found in Zonkwa Education Zone conformed with

the findings of Bolu-Steve, Adegoke and Biobaku (2014), which showed that the factors responsible for failure in WAEC examinations by secondary school students include age, gender and school type.

Findings on research question and hypothesis three revealed that students' performance in Physics in Senior Secondary School Examination in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and discouraging. This is evidenced in the grades obtained in the subject. For instance, the cumulative score percentage for students' performance in WAEC (2011-2015) in Physics in Sabon Tasha Education Zone was 45.8% which was below average. Likewise, the cumulative score percentage of students' performance in WAEC (2011-2015) in Physics in Zonkwa Education Zone was 33.7%. Thus, hypothesis three revealed that there was significant difference in students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

The low level performance of students in the examination in Sabon Tasha and Zonkwa Education Zones agreed with the findings of other researchers (Gero, 2011; Omoosewo, 2003 & Okebukola, 2005). Okebukola (2005) for example, outlined factors responsible for this low level performance of students in certificate examinations. These factors accounted for 64% of the variance of the scores in practical Physics. Students' participation in laboratory activities made the greatest independence contribution to the variance in performance, followed by students' attitude to Physics as a subject, teachers attitude to Physics laboratory work, and availability of Physics laboratory materials, school location, sex of the students, and students' fear of explosion and of damaging expensive equipment made non-significant contributions. In addition to this, Gero (2011) revealed

that students do not have enough laboratory experience to cope with the demand of the external practical examination in Physics.

Findings on research question and hypothesis four revealed that students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and encouraging. This could be explained in terms of the grades obtained in the subject. For instance, the cumulative score percentage for students' performance in WAEC (2011-2015) in Government in Sabon Tasha Education Zone was 79.1% which is higher and within distinction range. Also, the cumulative score percentage of students in WAEC (2011-2015) in Government in Zonkwa Education Zone was 70.7%. Thus, hypothesis four revealed that there was significant difference in students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

However, students' performance in Government in West African school Certificate Examination WAEC (2011-2015) in Zonkwa in 2012 regressed to 46.5%. This result corroborated the findings of other researchers (Ogunbanwo, 2014; Ajao & Awogbemi, 2012). For instance, Ogunbanwo (2014) attributed the low level performance to congestion of students in classes, inadequate inspection by the State Ministry of Education, inadequacy of facilities and automatic promotion.

Findings on research question and hypothesis five revealed that the performance of students in Commerce in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and discouraging. This is evidenced in the grades obtained in the subject. For instance, the cumulative score percentage for students' performance in WAEC (2011-2015) in Commerce in Sabon Tasha

Education Zone was 49.8% which was below average and the cumulative score percentage of students in WAEC (2011-2015) in Commerce in Zonkwa Education Zone was 22.2%. however, hypothesis five revealed that there was significant difference in students' performance in Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State.

Although, there was general low level performance of students in the examinations in Sabon Tasha and Zonkwa Education Zones, the performance of students in Sabon Tasha Education Zone was a bit better. This result is in line with the findings of Oke and Maliki (2009) as they disclosed that access to instructional facilities remained a great determinant of candidates' performance. The findings were discussed that the type of facilities provided in Federal Government Colleges and State Model Schools be extended to other state public schools in the country in order to improve the performance of students in WASSCE. However, the low performance level in West African School Certificate Examination (2011-2015) found in Sabon Tasha and Zonkwa Education Zones also validated the findings of Omosewo (2003) that teacher must take cognizance of the specific needs of students in the planning and delivery of their lesson and such teacher should devote substantial time to meeting these needs. This is because it has been found from this study and others that have been reviewed that meeting such needs have positive relationship with students' academic performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of the study carried out on the analysis of students' performance in West African Certificate School Examination (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (2011-2015). The chapter also presented the conclusion drawn in the study with valuable recommendations as well as suggestions for further study.

5.2 Summary

The study analysed students' performance in West African School Certificate Examination (WAEC) in Sabon Tasha and Zonkwa Education Zones, Kaduna State, Nigeria (2011-2015). Five objectives were raised to guide the study, which are to: examine students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State; find out students' performance in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State; ascertain students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State; find out students' performance in Government in West African School Certificate Examination in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State; and assess students' performance in Commerce in West African School Certificate Examination in WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones, Kaduna State. The above five stated objectives were translated into five corresponding research questions and five hypotheses.

The study reviewed literature on the concept of secondary education, students' academic performance, Theoretical Framework, and the Grading of West African Examination Result among others. The study adopted ex-post facto research design. The population of this study consisted of 39302 students presented for West African School Certificate Examination (WAEC) from 2011 to 2015 in all the 71 public secondary schools in Sabon Tasha and Zonkwa Education Zones, Kaduna State. A sample size of 5754 students in 14 secondary schools, Sabo Tasha and 2033 students in 13 secondary schools, Zonkwa Education Zone who sat the examination in 2011, 2012, 2013, 2014 and 2015 respectively were randomly sampled in the study. The recorded WASSCE results of students in English Language, Mathematics, Physics, Government and Commerce who sat the examination from 2011-2015 formed the instrument used in the study. The face and content validity of the instrument was determined by WAEC but was further validated by experts comprising the researcher's supervisors and a statistician. The results collected from the Computer Services Division of WAEC, Kaduna Zonal Office, Kaduna State was analysed using descriptive and inferential statistical tools. The descriptive statistics of frequency and percentage was used to obtain answers to the research questions, while at inferential level, Simple Regression Analysis was used to test the hypotheses at 0.05 level of significance.

Findings revealed that students' performance in English Language in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. The general performance level of students in Mathematics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. And students' performance in Physics in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and

Zonkwa Education Zones was generally poor and discouraging. In addition, students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and encouraging. The performance of students in Commerce in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and unpromising.

5.3 Conclusions

The study concluded that; students' performance in English Language, Mathematics and Commerce in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha Education Zone was better and higher than their counterparts in Zonkwa Education Zone. The performance of students in Zonkwa Education Zone was very low and discouraging for these numbers of years under study. This connotes that many students from Zonkwa Education Zone, Kaduna State might not be qualified for admission into higher institutions since they require the core-subjects for their different disciplines of study. There was general poor performance of students in Physics and Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones. Students' performance in Government in West African School Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was better and encouraging. The performance of students in Commerce in West African school Certificate Examination WAEC (2011-2015) in Sabon Tasha and Zonkwa Education Zones was generally poor and unpromising.

5.4 Recommendations

The study recommended that:

1. Kaduna State Government should ensure that secondary schools are well equipped to prepare students ahead of public examinations especially WAEC, while qualified and experienced English language teachers should be recruited to teach students preparing for the examinations.
2. Teachers should give more priority to practical and demonstration as part of instruction in order to improve students' understanding of practically related concepts in Mathematics.
3. Kaduna State Government should create a healthy teaching-learning environment that is conducive for students learning by acquiring and adequately supplying schools with modern Physics instructional materials, equipping the library with up to date textbooks and also the laboratory.
4. Parents should encourage their children to put more efforts in studying so to enhance their performance in West African School Certificate Examination.
5. Kaduna State Government in conjunction with well-to-do stakeholders should provide more infrastructural facilities to decongest large classrooms. In addition, parents should to be part and parcel of the school system by lending a helping hand to government.

5.5 Suggestions for Further Study

The following areas which the study did not adequately captured are hereby suggested for further research.

1. Influence of academic ability of students on performance in Mathematics in Senior School Certificate Examinations (WASSCE) in Kaduna State.
2. Factors responsible for students' low performance in science subjects in West African Senior School Certificate Examinations (WASSCE and NECO) in Kaduna State.
3. Effect of class size on students' academic performance in Mathematics in Senior School Certificate Examinations (WASSCE) in Kaduna State.

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APPENDIX A

LIST OF SCHOOLS IN SABON TASHA EDUCATIONAL ZONE

S/N	NAME OF SCHOOL	CATEGORY OF SCHOOL	TEACHING STAFF	NON-TEACHING STAFF	PRINCIPAL
			NO AVAIL	NO AVAIL	NO AVAIL
1	GSS G/GORA	DAY	30	3	1
2	GSSS S/TASH (SNR)	DAY	52	4	1
3	GSS KUJAMA (SNR)	DAY	26	6	1
4	GSS B/SAURA	DAY	14	1	1
5	GJSS KUJAMA (JNR)	DAY	27	2	1
6	GSS KAKAU (JNR/SNR)	DAY	23	1	1
7	GJSS NARAYI (JNR)	DAY	59	5	1
8	GSS NARAYI (SNR)	DAY	35	5	1
9	GJSS NASARAWA (JNR)	DAY	28		1
10	GSS NASARAWA (SNR)	DAY	30	3	1
11	GBSS BARNAWA (JNR/SNR)	DAY	28	1	1
12	GJSS KUFANA (JNR)	DAY	12	2	1
13	GJSS K/MAGANI (JNR)	DAY	12	2	1
14	GJSS K/MAGANI SNR	DAY	14	1	1
15	GSS KUFANA (SNR)	DAY	13	1	1
16	GSS KAJURU (SNR)	DAY	12		1
17	GJSS KAJURU (JNR)	DAY	16		1
18	GSS T/MARE JNR/SNR	DAY	15	1	1
19	GSS IBURU SNR/JNR	DAY	11		1
20	GSS AFOGO SNR/JNR	DAY	6		1
21	GJSS KALLAH JNR	DAY	10		1
22	GSS KALLAH SNR	DAY	10	1	1
23	GSS IRI JNR	DAY	7		1
24	GSS GWAGWADA JNR/SNR	DAY	13	2	1
25	GSS S/GAYAN JNR/SNR	DAY	22	1	1
26	GSS U/ROME SNR	DAY	28	4	1
27	GSS U/ROME JNR	DAY	24	4	1
28	GJSS KAKURI JNR	DAY	38	4	1
29	GSS KAKURI SNR	DAY	40	6	1
30	GJSS CHIKUN JNR	DAY	4		1
31	GJSS KATARMA JNR	DAY	2		1
32	Q/AMINA COLLEGE JNR/SNR	BOARDING	66	10	1
33	GGSS BARNAWA SNR	DAY	43	3	1
34	GSS BAGADO JNR/SNR	DAY	40	1	1
35	GJSS KANKOMI JNR	DAY	10		1
36	GSS BISHINI JNR/SNR	DAY	13		1
37	GSS JERE SNR.	DAY	9	1	1
38	GJSS GERE JNR.	DAY	11	3	1
39	GSS IDON JNR/SNR	DAY	16	1	1
40	GSS IDDAH SNR	DAY	11	1	1
41	GJSS IDDAH JNR	DAY	13	3	1
42	GSS TELEVISION SNR/JNR	DAY	64		1
43	GSS MAKERA JNR/SNR	DAY	31	3	1

44	GSS RIMAU JNR/SNR	DAY	15	1	1
45	GSS GUJENI SNR/JNR	DAY	18	1	1
46	GSS RIDO JNR/SNR	DAY	19	2	1
47	GJSS LIBERE JNR/SNR	DAY	4		1
48	GJSS K/STATION JNR.	DAY	2		1
49	GSS KIDUNU JNR/SNR	DAY	12		1
50	GSS K/TSOHUWA JNR/SNR	DAY	12		1
51	GSS U/GAMO JNR/SNR	DAY	6		1
52	GSS D/KASAYA JNR/SNR	DAY	5		1
53	GJSS GWARAJI JNR	DAY	2		1
54	GSS D/TAFA SNR	DAY	21		1
55	GJSS D/TAFA JNR	DAY	17		1
56	GJSS RIJANA JNR/SNR	DAY	11		1
57	GGJSS BARNAWA JNR.	DAY	37	6	1
58	GSS D/NIGIMAH JNR/SNR	DAY	16	1	1
59	GSS KATARI JNR/SNR	DAY	24	1	1
60	GJSS S/TASHA JNR	DAY	42	5	1
61	GSS U/BORO JNR/SNR	DAY	25	3	1
62	GSS M/RIDO SNR/JNR	DAY	56	4	1
63	GSS KUDENDA JNR/SNR	DAY	29	3	1
64	GSS GYENGYERE JNR.	DAY	5		1
65	GSS MARO JNR/SNR	DAY	11		1
66	GTC KAJURU	BOARDING	59	14	1
