ASSESSMENT OF THE EFFICIENCY AND EFFECTIVENESS OF SENIOR SECONDARY EDUCATION IN JIGAWA STATE (2009– 2013)

BY:

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SUPERVISOR

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CERTIFICATION

I certify that this research work was conducted, written and compiled by me. I also certify that to the best of my knowledge, this work has never been presented, wholly or partially for the award of any degree or for publication elsewhere.

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DEDICATION

This work is dedicated to:

My dearest husband, A. Suleiman Shehu Kazaure,

My mother and children.

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All praises be to Almighty Allah (SWT) the Most Beneficent, the Most Merciful for giving me the opportunity to undertake this research work. This research work could not be easier for me without the assistance, encouragement and support of other people. As such, I wish to show my sincere acknowledgement to all those who have assisted me in one way or the other.

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Abstract

The study investigated the Efficiency and Effectiveness of Senior Secondary Education in Jigawa State from 2009 – 2013.Seven research objectives, questions and hypotheses each were formulated and tested. The study employed descriptive survey research design. The population of the study consisted of 1903 teachers and 124 principals out of which 322 teachers and 108 principals were selected as suggested by research advisers (2006), using random sampling technique. To collect data for the study, two sets of self developed questionnaires named the Principal Questionnaire for Efficiency and Effectiveness of Senior Secondary Education (PQEESE) and Teachers' Questionnaire for Efficiency and Effectiveness of Senior Secondary Education (TQEESE), were designed and validated. The instruments were validated by the supervisor and other senior lecturers in the Department of Education. BUK. Pilot study was conducted to determine the reliability of the instrument using the split-half method and reliability coefficient of 0.658 was obtained. The data were analyzed using frequency counts, percentages and chi-square, bar chart. Simple percentage was used to compute teachers qualification. The findings of the study, among others, revealed that the quantity of resources supplied to senior secondary education in Jigawa state from 2009-2013 was normal; the quality of resources supplied to senior secondary education in Jigawa state from 2009-2013 was adequate; and the quality of teaching and learning in Jigawa state senior secondary education from 2009-2013 was effective .The quality of guidance and counseling in the state from 2009-2013 was not satisfactorily. From these findings, it can be inferred that secondary education in Jigawa state is both effective and efficient. From the findings, the provision of adequate guidance and counseling services to all the secondary schools in the state were recommended among other things.

Definition of Terms

INPUTS: are the human and non human resources in the system. The human resources are the student and the staff. The non human resources are the funds and physical facilities.

THROUGH PUTS: these referred to as the internal process for production function. They include the school curriculum, methodologies technologies, administrative machinery and means of judging and controlling the quality of the system product. This is the action area where the raw materials are processed in a accordance with the objectives and function of the system.

OUTPUTS: these are the products exported by the school system into the society. The out puts of the schools system are not as quantifiable as those of the industry because the outputs are measured in different forms.

EFFICIENCY: it means how competently senior secondary schools in Jigawa state are being run, efficiency will include the competence or ability of principals and teachers and how they are able to improve the students' performance at the final examination [NECO and WAEC]. itcan also be defined as the ratio between educational outputs and inputs used for the purpose of training and educating students in school organization.

1. EFFECTIVENSS: in the senior secondary schools system is the attainment of the desired results or achievement of educational objectives

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CHAPTER ONE

INTRODUCTION:

1.1 Background tothe Study

Educational output as could be observed differs significantly from theoutput of other fields of endeavour. For instance the output of a soap making industry would be tablets of soap the price of which could easily be calculated and compared with that amount spent on the raw-materials and other resources used for production of the soap. For education however, it is not that easy - it is more complex. Thus the method of measuring the output of education has to take a different dimension. This is done by first looking at educational objectives and establishing the fact whether or not these objectives have been achieved.

Apparently, the main purpose of education is to produce people who have acquired knowledge and skills via attending schoolup to a particular level. Thus the output of education in this respect could be the number of students who have completed a certain level of education such as primary, secondary or tertiary .In this particular case of this study, the output of education is measured as the number of students who have passed out of school (irrespective of whether or not they passed examinations).Since it can argued however, that the essence of education is to acquire knowledge and skill, the quality of theoutput of education should therefore be measured based on the number of students who have actually attainedthe prescribed level of knowledge. The primarymeans through which such acquisition of knowledge could be determined is by passing examinations.

This argument as could be observed is valid.So going by it the quality of educational output could be measured by the number of students who have successfully passed prescribed examination such as SSCE examinations NECO and WAEC. Here for the amount of money spent on the production of such students could be calculated and monetary value of the output determined.

Measuring the input of education is not as difficult as that of the output. The input in relation to education include the students, teaching and non-teaching staff, physical structures/infrastructural facilities instructional materials and ancillaryservices such as health care,feeding , water supply and so on .The monetary value of all these iseasily obtainableexcept that of the students beingpart of the input.Here, education economists suggest that the monetary value of the time the students spent in school learning could be calculated. As such the costof all other resources, staff salaries and services are put together to give the total value of the educational input.

Generally speaking,efficiency of education can be measured by comparing the annual budgetary allocation to education withthe value of the output aswas discussed above which would be the number of students who have successfully passed prescribed examinations. However, before secondary education can achieve its objectives of producing excellent students in terms of quality and quantity a number of things need to be put in place. It was on thebasis of this that thisstudy assessed the efficiency and effectiveness of senior secondary schools in Jigawa state. The study also examined the availability of facilities, teaching and learning, funding of senior secondary schools in the state etc as well as the efficiency and effectiveness of both the students and teachers and level of students' performance.

Secondary education like other forms of investment in human capital contributes immensely to the social and economic development of a nation. It also helps in raising the income of the poor in the nation just like investment in physical capital does.

Despite current trends, education remainsa productive investment in human capital .it is a tool adopted by many developing countries for accelerating economic development and promoting higher standards of living .The justification for this is that,apart from being a basic human right, it is an essential component of social and economic development. When properly planned and implemented, investment in education yields very great dividends,

especially in the poorest countries of the world .According to UNESCO's statistics, Nigeria is one of such countries.

The perspectives from which the contributions of education to the process of development are viewed havebeen subject to considerable change since the outbreak of the Nigerian civil war. In the past education was viewed mainly as a means to raise people's social and political consciousness and to meetthe need fortrained manpower in improving the production processes.In this light, technical/vocational skills were regarded as the solution to problems of modernization and emphasis was placed on secondary and high education directed towards achieving this goals.

In the global context however, the prevailing perspective of development had widened as early the mid 19th century. Apart from the concern for increased production, there was also concern for the welfare of human beings and for alleviatingthe conditions leading to poverty. Consequently, education came to be regarded as a basic human need and a means of meeting other human needs, as well as an activity that sustains and accelerates development in all its ramifications. In recent times, it is recognized that the development of a country's human resources is crucial to its prosperity and growth, and to the effective use of its physical capital. Education, which can be seen as representing investment in human capital, is an integral component of all development effort. It thus follows that education has to cover arather wide spectrum in content and in form, and that general education is essential for the achievement of the objectives of development and as training in specific skills.

Despite all efforts to provide educational opportunities for most of those who need them,educational opportunity in Nigeria remainsunevenly distributed.Drop-out and repeater rates are rather high, the quality of education provided is poor and even graduates from the educational institutions in the country often discover that what they have to offer is not in consonance with employers' requirements. Governments in Nigeria have underestimated the

result ofthe reduction of available funds for additional investment in education and have overlooked the wastages in the investment already made.

According to Fafunwa (1974), in 1899,the colonial government established a public school for Muslim children in Lagos and this broke the mission's monopoly of providing education.

Since the colonial administration needed people who would serve in subordinate positionssuch as interpreters, teachers, clerks etc,.the assignment fell on the missionaries to provide such education that would produce people in these categories.As a result of this,there was serious competition among the different missions in establishing schools whichled to proliferation of schools.Theseware described by Ejiogu (1986) as 'mushroom' schools.There was a serious imbalance in the geographical spread of theseschools as some places had too many schools while others did not have enough.Sir Frederick Lugard (as the Governor General) as a result of his interest in education, proposed the education ordinance and code which was adopted in The code was designed to curb the increasing number of unassisted schools and to simplify the procedure for granting approval for establishing schools.It is worth mentioning at this point that the schools established then were not really what may be referred to as secondary schools.

1.2 Statement of the Problem

Effectiveness in the educational system is the extent to which the available resources are utilized to achieve the educational goals and objectives. According to Whaow (1993), the main objective of every school system irrespective of the level of education is to provide high quality education forlearners. The required resources needed to provide high quality education include financial, human and material assets (Carrim and Shalem: 1999). In a similar vein, Kirjavainen (2009) identifies five factors that contribute to achievement for a student they are; family, peer, community, teacher and school inputs. Therefore, effective

combination of all these variables enhances educational efficiency. According to Ezewu (1983), apart from family, school is regarded as the principal agent of socialization through which children acquire an academic education and learn many culture codes. To this end, the educational sector has always been accordedtop priority by successiveadministrations in Jigawa State. This reflects in the Jigawa State annual education sector performance report (2010), which shows an allocationof 18.2% (i.e ₦ 10.4 billion out of ₦ 57.2 billion) and 15.1% (₦12.7billion out of ₦ 83.9 billion)of the total budget of the State forthe educational sector in the years 2007 and 2008, respectively.

In addition, the success of any educational system is a product of the available methodological competence, educational qualification level, and the administrative machinery established for its implementation. In recognition of this fact therefore, professionalism is given a major emphasis in all teaching activities. Therefore, acquisition of professional qualification is required for educational effectiveness.

In spite of the colossal amounts that are being allocated to the education sector, it is observed that the non-achievement of efficient and effective teaching and learning in schools has been one of the perennial problems in secondary school educational system in Jigawa State. The skeptical attitude of teachers, coupled with the poor educational foundation of the students, as well as parents' lackadaisical attitudes towards the acquisition of western education and poor methods of teaching are among the factors that are responsible for the poor performance of the senior secondary school students within the State. It was observed that some people accepted the teaching offer because they expect some material gains while others took the job because they do not have alternative. Most graduates who find themselves in the teaching professionconsider it as tentative employment until they get job that is in line with their desires.

In view of these, the main purpose of this study is to investigate the rate and extent to which

the available human and material resources are being utilized to achieve efficiency and effectiveness in senior secondary education in Jigawa State.

1.3 Objectives of the Study

The study sought to accomplish the following objectives:

1. Examine the quantity of resources supplied to senior secondary schoolsinJigawa State from 2009– 2013.
2. Assess the quality of resources suppliedtosenior secondary schoolsin Jigawa State from 2009–2013.
3. Evaluate the quality of teaching and learning in senior secondary education in Jigawa State from 2009–2013.
4. Assess the extracurricular activities in senior secondary education in Jigawa State from 2009–2013.
5. Ascertain availability of guidance and counseling services in senior secondary education in Jigawa State from 2009–2013.
6. Determine the quality of educational outputs of senior secondary ducation in Jigawa state from 2009 to 2013
7. Examine the quantity of educational output of senior secondary education in jigawa state from 2009 to 2013

1.4 Research Questions

The study sought to answer the following questions.

1. What is quantity of Resources supplied to senior secondary education in Jigawa state from 2009-2013?
2. What is quality of resources in senior secondary education within Jigawa state from 2009 -2013?
3. What is the quality of teaching and learning in senior secondary education within

Jigawastate from 2009-2013?

4. What is the extent of availability of guidance and counseling services in senior secondary school education within Jigawa state from 2009- 2013?
5. What is the extra- curricular activities of senior secondary education in Jigawa state from 2009-2013?
6. What is the quality of educational outputs of senior secondary education in Jigawa state from 2009 to 2013?
7. What is the quantity of educational outputs of senior secondary education in Jigawa state from 2009 to 2013?

1.5 Hypotheses

Thefollowing hypotheses have been tested

1.There is no significant difference in the opinion of principals and teachers on quantity of resources in senior secondary schools within Jigawa State.

2. There is no significant difference in the opinion of principals and teachers on quality of resources in senior education school within Jigawa state between 2009-2013.
3. There is no significant difference in the opinion of principals and teachers on quality and learning in senior secondary education within Jigawa state between 2009-2013.
4. There is no significant difference in the opinion of principals and teachers on quality of extra-curricular activities in senior secondary education within Jigawa state between 2009-2013.
5. There is no availability of guidance and counseling services in senior secondary education within Jigawa state between 2009-2013.
6. There is no significant difference in the opinion of principals and teachers on quality of educational output in senior secondary education in Jigawa State between 2009-2013
7. There is no significant difference in the opinion of principals and teachers on quantity of

educational output supplied to senior secondary education in Jigawa State between 2009-2013

1.6 Significance of the study

The outcome of this study could be relevant to the needs of the JigawaState Government, the JigawaState Ministry of Education, principals of senior secondary schools in JigawaState and other stakeholders in secondary education in the state.

The Jigawa state government is going to benefit from theoutcome of this study because of the critical examination of inadequacy or other wise of limitation of resources supplied to the secondary education sub-sector in the state.

The Ministry of Education will findit more expedienttoemploy staff, supply additional infrastructural materials, build additional classrooms, laboratories and hostels, and increase student enrolment because of the satisfactoryresultsandthe improved quality of student performance in final examinations, (i.e. WAEC and NECO).

On the other hand the principals managing secondary schools in JigawaState would find the outcomes of this study relevant to their needs due to the fact that the result of the study will provide a reflection oftheir managerialcompetence. Where strains are discovered they will attemptto reappraise them and where lapses and drawbacks are indicated,they will try to devisenew and more effective means of rectifying them.

For teachers they will improve in their strategies and develop new strategies in handling the subjects matter and their students. The students should try to work harder in order to perform very well. Other researches will also find it helpful as a source of materials to their studies.

This study would also be of immense relevance to policy makers at state and national levels particularly in terms of policy formulation and determination of priorities for resource allocation for the education section.

Other researchers in the field of educational management in Jigawa state in particularly and Nigeria in general. The findings of the study would generate useful opening for future researchers with the view to promote quantitative education in general.

Similarly, other organizations; Non-governmental Organization (NGOs), stakeholders, donor agencies and the local communities interested in helping senior secondary education in Jigawa state would find the findings useful; as they will be able to determine areas where they could assist senior secondary education in Jigawa state

1.7 Scope and Delimitation of the Study

This study is concerned with efficiency and effectiveness of Senior Secondary education in Jigawa state from 2009-2013. As such efficiency of tertiary in the state as well as that of primary education sector could not be part of the study. Similarly other issues that are not related to efficiency of secondary education would not be covered by these research work .Efficiency of secondary education in neighboring states such as Kano and Katsina are obviously relevant to the study but would not be covered. Additionally, efficiency of secondary education in the statebefore the year 2009 such as 2007 would not be part of the study.

CHAPTER TWO

LITERATURE REVIEW:

2.1Introduction

This research work was designed to investigate the efficiency and effectiveness of senior secondary education in Jigawa State from 2009-2013. The purpose of this chapter was to take a critical view of the existing related literature on the research topic. The review initially provides a general theoretical framework of the variables under consideration.

2.2**Theoretical Framework**

Administration comprises planning, organizing and controlling organizational activities with objective of achieving the goals of the organization. Such organization could be a commercial firm, hospital, bank, or school. Aderounmu and Ehiametator (1985) view public administration as an art of organizing and managing both human and material resources to attain certain set goals. They stated further that educational administration is a branch of public administration. They described educational administration as being essentially a service activity or tool through which the fundamental objectives of the educational processes may be fully and efficiently realized. It is geared towards the attainment of the goals of teaching by teachers and of the goals of learning by students. An educational administrator could be a Vice Chancellor of a University, a Provost of a College of Education, a Rector of the Seminary or Polytechnic, a secondary school Principal and a Head Master of a Primary school.

At all levels of education in Nigeria, the teacher aims at producing a democratic, patriotic and self-reliant individual. (The National Policy on Education FRN) (2004) listed the following as the objectives of secondary school education:

a. To provide an increasing number of primary school pupils with the opportunity for education of a higher quality irrespective of sex, or social, religious and ethnic background
b. To diversity its curriculum to cater for the differences in talents, opportunities and roles possessed by or open to students after their school course
c. To equip students to live effectively in our modern age of science and technology;
d. To develop and project Nigerian art and language as well as the world's cultural heritage;
e. To raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, and appreciate those values specified under out broad national aims and live as good citizens;
f. To foster Nigerian unity with an emphasis on the common ties that unite us in our diversity;
g. To inspire its students with a desire for achievement both at school and in later life'.

Fafunwa (1971) states that "more than the ordinary work shop foreman whose job is to receive orders and see that his subordinates carry out those orders, the principal is responsible for:

a. the overall administration of the school;
b. supervision of staff;
c. improvement, and
d. Development of school community relations.

The Principal has also to perform the following duties;

a. prepares and administer the budget;
b. procures and maintains the school equipment and instructional materials;

c. maintains discipline among staff and students,

d. keeps and scrutinizes school records

e. attends to parents, ministry of Education and the general public.

He has to attend to other administrative duties assigned him by the education authority. To be able to effectively execute these functions, principals will have to make some vital decisions on what, when and how each duty should be carried out.

Human Capital Theory

The economic prosperity and functioning of a nation depends on its physical and human stock. Whereas the former has traditionally been the focus of economic research, factors affecting the enhancement of human skills and talent are increasingly figuring in the research of social and behavioural sciences. In general terms, human capital represents the investment people make in themselves that enhance their economic productivity.

The theoretical framework that most underpinsthe wholesome adoption of education and development policies has come to be known as human capital theory. According to Sakamota and Power (1995) and Psacharopoulos and Woodhall (1997), human capital theory rests on the assumption that formal education is highly instrumental and even necessary to improve the production capacity of a population. The human capital theorists argue that an educated population is a productive population.

Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capacity which is a product of innate abilities and investment in human beings. The provision of formal education is seen as a productive investment in human capital, which the proponents of the theory have considered as equally worthwhile as that of physical capital.

According to Babalola (2003), the rationality behind investment in human capital is based on

three arguments;

i. The new generation must be given the appropriate parts of the knowledge which has already been accumulated by previous generations.
ii. The new generation should be taught how to use existing knowledge to develop new products, to introduce new processes and to generate production methods and social services.
iii. People must be encouraged to develop entirely new ideas, products, processes and methods through creative approaches.

Efficiency Theories

The scientific management approach was propounded by Frederick Taylor and his associates. Taylor, who hadbeen an industrial labourer, a clerk, a machinist, a foreman, a chief draftsman and then a chief engineer, had reached the highest peak in American society through hard work. The climax came when he published his book in 1911 titled, 'The Principles of Scientific Management'. Taylor wanted to translate his experiences into reality. Taylor believed that men could be posited like a machine to achieve maximum production.

Human beings were programmed like machines to suit the job descriptions. Taylor and his group believed that man was motivated by solely economic gains without consideration for his physiological, psychological or sociological needs. The work was defined daily for each worker and his tools and conditions of work given him. His pay was tied to the completion of his work and the fulfillment of its terms. Failure to complete it on schedule was subject to punishment, while the early achiever was rewarded accordingly. An unskilled worker with a strong physiological make up could earn higher or equal amount to the skilled worker with a weaker physiological make-up.

Taylorism dehumanized workers and considered people as machines. The

physiological, sociological and psychological aspects of human beings were ignored. Workers were recruited and placed in the hands of technicians who programmed their work behaviour. They said that tools and materials should be kept close to the operator as much as possible. Therefore, Taylor's theory can be considered as autocratic. He got one way out of everything. He saw his scientific method as good for every worker. He could not see the authority of the manager or administrator being influenced by society, personal health or a domestic problem of a worker.

Administrative management theory

Taylor's theory was followed by the Administrative management theory developed by Henry Fayol. Fayol defined administrative behaviour as contribution, planning, organizing, commanding, coordinating and controlling. He set out fourteen areas of principles of management thus:

- Division of labour
- Authority and responsibility
- Discipline
- Unity of command
- Unity of direction
- Remuneration of personnel
- Coordination
- Scalar chains
- Equity
- Stability of tenure
- Initiative
- Subordination of individual
- Interest in general interest order; and

- Espirit de corps.

It may be observed that Fayol's administrative management theory is an expansion of Taylor's theory. The fundamental difference between the two efficiency theories and their applicability in Nigerian secondary schools isthat in Taylors' view workers are seen as machines that have no social needs in addition to the monetary needs, while Fayol's administrative theory sees workers from the economic, social and psychological perspectives. According to him administrative behavior consists of different functions which he defined as follows:

- To plan: which means to study the future and arrange plan of operation
- To organize: means to build up materials and human organization of the business
- To command: means to make the staff do their work.
- To coordinate: means to unite and correlate all the organizational activities into one successful whole.
- To control: means to see that everything is done in accordance with the rules of the enterprise and instructions given.

Luther, Gulick and Urwick articulated and amplified those functions of administration stated by Fayol as follows:

Planning: It is very important in management and administration. It involves selection from many alternatives of choices that will affect the whole or part of an organization. The administrator selects goals and objectives for future actions. He selects therefore what activity to do, when and how to do it. This means he has to decide before hand on what to do.

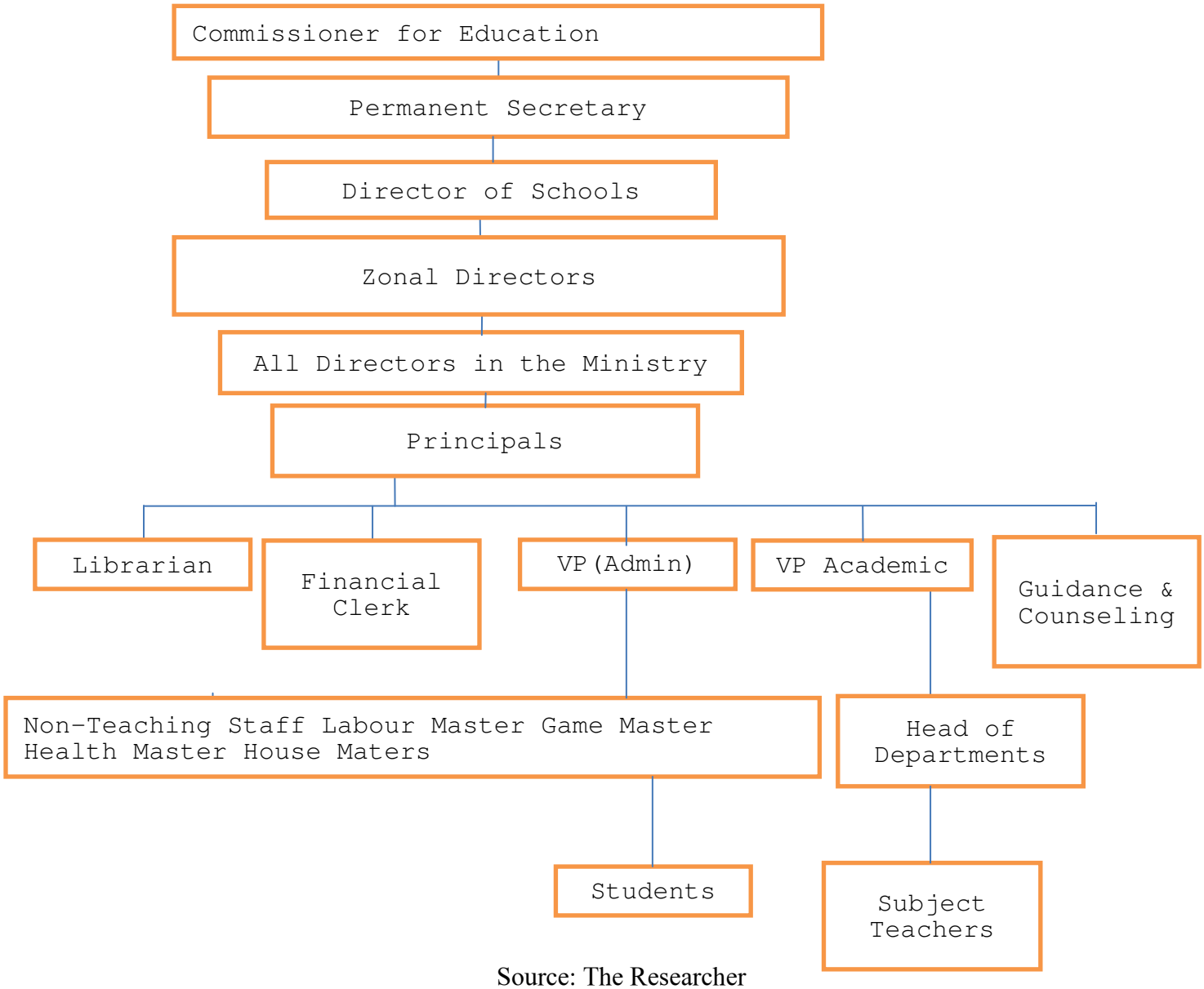
In the Nigerian secondary school situation, the educational administrator needs to recruit the right type of staff, induct the staff and give him/her tools for work. This leads to efficiency. A teacher going to teach the next day, prepares his learning experiences, writes his lesson notes, chooses the right type of instructional materials, and the method of teaching beforehand. A

supervisor of instruction plans the best strategy for supervision before leaving his office. Efficient planning yields efficient results. One thing with Nigerian administrators is that they are sometimes in the rush and so cannot plan properly.

Organizing:This is the establishment of an appropriate machinery or organ to carry out the functions of an organization (jn this case the secondary school). In Nigeria, schools are divided into different organs for effective administration. In the universities there are the Vice Chancellors, Deputy Vice Chancellors (Administration and Academic), the Deans of Faculties, Heads of Departments, Teachers, Bursars, Registrars etc. In the colleges of education there are Provosts, Deans of Schools, Registrars, Heads of Departments, Librarians, Bursars etc. who make sure the work of the institution is going on successfully. In the secondary school system, we have the Principal, the Vice Principals(Academic and Administration), Heads of Departments of subject areas etc who supervise the work. All these sub-organs of the school in various ways make sure that the work of teaching and learning are effectively done.

Staffing: This refers to the recruiting of the right type of staff regularly, maintaining and organizing in-service training for their growth and promoting them. In the universities, polytechnics and colleges of education in Nigeria there is the Governing Council which is the highest decision making body. There is an arm of the Governing Council known as the Appointments and Promotions (A & P) Committee which recruits, maintains and promotes staff regularly. In the secondary school, the Post Primary Schools Management Board recruits, deploys and promotes staff. The principal organizes orientation for each teacher, supervises, and recommends him/her for promotion.

Figure 1: The organogram of the secondary school administration system in Jigawa State



Source: The Researcher

Directing: This implies giving an effective leadership to the teaching system. According to Lewin et al. (1939), identified three main styles of leadership, in particular around decision making.There are three main type of leadership autocratic, democratic or liaissez-faire. There is also situational leadership. School administrators should utilize resources at their disposal towards the achievement of national education objectives.

Co-ordinating: is referred to as the process of integrating all the activities to bring about a

successful conclusion. The educational administrator brings into a successful whole, the activities of everybody. The school principal does that in his school. The Vice Chancellor does it; likewise the Provost and Rector do the same thing.

Reporting: This involvesdisseminating the right type information to members of an organization. Here communication is very important. Every school administrator (Nigerian school administrators inclusive)should be conscious of this basic fact. If a principal does not communicate properly with students and staff, his/her work in theschool will not be carried out effectively, and this cuts across the educational administrators at all levels whether primary, secondary or tertiary.

Budgeting: This has something to do with the prudent management of fiscal resources, allocation, office space and equipment. In Nigerian universities, polytechnics, colleges of education and secondary schools, the heads of the institutions and the Governing Councils prepare a budget including the needs of the institution for the following year in terms of staffing needs and material needs. It is defended before the relevant government agency and approved by the same. Without this budget prepared, approved and acted upon, the institution cannot function. Objectives then will not be realized.

There is hierarchy in educational set-up of the scientific management theory, but human relations and behavioural science approaches are more easily adapted to Nigerian school system than the scientific methods.

The Behavioural Theory

The Behavioural approach focuses upon what leaders and managers do in their daily work. It can be broken down into two categories. The first category uses ethnography,observation methods, diaries and interviews to study the nature of managerial work in organizations or small groups.It also studiesthe things managers do and the way they spend their time supervising others.

Another interesting aspect isthe duties and responsibilities as demanded by different managerial situations on the roles, function and practices of effective and ineffective executives.Other studies have looked at behaviors ofleaders in small group settings and how it influences members' job satisfaction and performance.

2.2.1 **The Open System Model**

This study hinges on the Open System Theory. Open System describes an organization as a complex living organism which interacts with its environment (Morgan 1986, Hanna 1997). The organization is depicted as distinct and separate from its external environment but with permeable and often ill-defined boundaries. It is a purposeful output which it exchanges with stakeholders in its external environment in return for resources and sport and so is dependent upon its environment.

Thisstudy focuses on how relationships between resources (inputs and outputs) are mediated by internal processes. Certain key elements such as the technology of the organization's productionprocesses and the culture of its human relations are singled out for study. These elements have important and interdependent effects on the processes which relate inputs to outputs and which connect the organization with its environment. Appropriate feedback mechanisms (students examination results or performances) between the organization and its environment and within the system itself, are required for the organization to be responsive and adaptive.

An open system input – output model of the educational organization enables one to trace the possible linkages between increased flexibility in deploying resources and the intended desirable effects on education processes and outcomes. The model indicates therefore how self-management of finances and resources might improve efficiency and effectiveness. It also assists in understanding why the necessary linkages between greater flexibility in resources allocation within the organization and the desired effects on educational outputs

may not get established.

2.2.2 **Education Outputs**

Educational organizations if givengreater choice in the use of resources may result in improvements in teaching and learning. Logically, there must be a link between the resource input and the resulting educational output or outcomes for students. There are however, well known problems in defining educational outputs and outcomes because many of them are intangible and there are consideration disagreements, often ideologically founded about what are desirable educational aims and objectives.

The aims of education refers to its broads purposes which usually include productive labour force, transmission of knowledge and culture, socialization and enhanced ability to participate in democratic politics. The outcomes of formal education are the broad effects which it actually has on individuals' knowledge, ability to appreciate and enjoy cultural activities, and to behave with social responsibility. It is usual to distinguish the broad outcomes of formal education from its narrower and more specific outputs, some of which are measurable and some of which are not.

Outputs are the immediate effects of the organization on its students, whereas outcomes are the longer term effects both for the individuals who attended the organization and the consequences of these effects for society in general. Examination results are an organizational outputs and the students' income earning capacity in later life is an outcome. Examples of measurable outputs are examination results and qualifications, rates and participation in higher and further education and training and subsequent employment. Certain process variables are also used to measure school and college performance such as attendance. Outputs which are much more difficult to measure are the effects of school on pupils' attitudes, beliefs and behavior.

The major problem in using unadjusted indicators of school and college output, such as raw examination results, is that, they are measures of gross output i.e. the equivalent of measuring company performance by the monetary value of sales. In order to assess educational output, account has to be taken of students' social background and cognitive ability since theyare the primary determinants of measured educational attainment. Statistical estimates of value added measures of school and college effectiveness separate the effect of the educational organization on test and examination scores from the effects of social background, cognitive ability and prior attainment (Macpherson 1997).

The problem that bedevils all attempts to relate inputs to the resulting output and outcomes of education is that they are multiple, many are intangible and there is no agreement on their relative social value. Measuring school and college effectiveness in terms of quantifiable output indicators of educational attainment in-relation to given student characteristics assumes that these measured attainments are important, even if it is recognized that there are other desirable output and outcomes which have not been or cannot be measured.

Emphasizing measurable output is likely to bias organizations towards concentrating on these at the expense of the less measurable, but making no attempt to measure output encourages concentration on short term processes at the expense of longer term attainments and fails to produce transferable knowledge of the links between teaching methods and consequent educational outputs.

2.2.3The Educational Organization as an Input-Output System

In public sector management and accountancy, "effectiveness" is defined as the extent to which an organization's actual output matches the output desired from it and efficiency is assessed by comparing outputs to inputs. Thus, if financial and resources management are being judged against the criteria of efficiency and effectiveness, educational organizations

need to understand the linkages between their inputs of human and material resources and the subsequent educational output.

From this perspective the educational organization is an input-output system. The open systems model is an elaboration of a simple input-output system which focuses on three key constituent elements of the organizations (Butler 1991).

2.2.4The Task Environment

The external environment in which schools and colleges operate can be subdivided into the general environment which is influenced by the major technological, social, political and economic forces operating in the society. The specific environment is made up of parents, the local community, local business, the local education authority and other educational environment. These are referred to as the task environment (Butler 1991). In order to survive, the organization needs to pursue ends that sufficiently satisfy the needs of its resources and support.

School and colleges obtain resources in the form of students finance and donations in kind in return for the educational services it provides. The success with which an organization obtains resources from its task environment depends on norms of its supporters and the way they evaluate the organizations' performance in relation to any other alternative supplier.

In the general model, organizations (like education) jostle with rival organizations (other training institutes) to attract support and resources because they face different degrees of uncertainty in their task environment. Self management is intended to enhance the importance of the organization's own actions in securing support from its task environment by improving its performance as perceived by its supporters.

An important dimension of the external environment is the regulatory regime in which the organization operates. In the case of schools the government has tightened up the

specification of the tasks expected of schools and promoted the dissemination of information outside the school about its performance in undertaking these tasks.

2.2.5Transforming Inputsinto Outputs

The production technology inputs acquired from the external environment are transformed into outputs which are then ploughed back into the environment. Schools or colleges which engage in self-management use the (financial) resources received or generated to purchase real resources in the form of staff, materials, energy, water and other services. The real resources (i.e. existing buildings, and equipment etc) are deployed to produce operating services which aid teaching and learning indirectly.This activity, as the first stage is monitored and assessed by authorities concerned in education system of Jigawa State.

An appropriate physical environment has to be created and maintained in which learning can occur; administrative services must be provided to support learning and investment must take place in maintaining and developing the staff.

The next task in the school's production process is to put into use its physical and human resources to provide educational activities. The term production technology encompasses the teaching method, group size and organization, the ratio of support staff in the classroom to qualified personnel (teaching staff), quality of teaching materials and time which cannot be stored for future use. The organization of time is the key to effectiveefficient?learning. Researchers on school and teacher effectiveness efficiency?have shown that the amount of student time on task achieved by teachers is a significant variable in explaining differential effectiveness efficiency?.

An organization's output is not the activities themselves (such as number of periods for a subject per week for a particular class) but the learning objectives achieved. The improvements in students' knowledge, understanding, skills and attitudes achieved as a result of experiencing the educational activities are the final outputs of colleges or schools. Self-

management allows for additional flexibility by schools and colleges. The flexibility couldbe the mannerin which resources are deployed to change the core technology. More support staff can be used in classes with lecturer and teachers or more administrative staff can be employed to reduce the time teaching staff spend on clerical tasks. The input-output model is beneficial in analyzing the potential effects of budget self-management.

2.2.6EDUCATION AS INDISPENSABLE TOOL

Adeyemi (2012) is of the view that education is an indispensable tool for personal and social development. He said that many countries in the world view spending on education as a wise investment for the development of their nations. Through education, it is expected the right number and quality of workers will be produced for the socio-economic growth and development of the nations.

According to the National Policy on Education, generally, secondary education is meant for children not above the age of 16 years old. Bongi (1991) said that when we talk about the foundation of Western education in Nigeria, specifically we are referring to the foundation of the present-day education which European missionaries laid in the nineteenth century. The missionaries realized the value of higher (secondary) schools.

That led to the establishment in 1859of the CMS Grammar School in Lagos and in other parts of the country such as Abeokuta, Calabar, Ibadan, Ijebu-Ode, and Akure by the Christian missionaries noted in Taiwo (1983). Like an industry, the secondary school equally receives inputs (pupils) from the communities, processes (educates) and dischargesthem (the graduates) as outputsto the people (Oni 1995)

Adeyemi (2012) elaborated on this subject when he said that the Nigerian educational system has witnessed a progressive change since independence in 1960. The changes started with the inaugurationof the Universal Basic Education (UBE) in 1999 by the Federal Government of Nigeria, leading to a rapid expansion of the school system in Nigeria as a

whole including Jigawa State. Itcan be seen from the numerous educational statistics at both state and federal levels,thatthe establishment of UBE has led to an upsurge in enrolmentof pupils; whichled to an increased demand for higher secondary school education by the UBE products.

Empirically, with the rapid growth in number of primary schools graduates, it was right to assume that there would soon be an increased demand on resources especially internal efficiency, which must be high to cope with the growing demand for post primary school education. According to Adeyemi (2012) many variables such as school location, school size, teacher student ratio, teachers' qualifications and experience in teaching among others tend to influence how a school system performs at a particular time.

From casual observation, resources allotted for secondary education service delivery hinges on sufficient finance most especially from the government. With current low results from various external bodies, there is apprehension as to the quality of future workforce, which comes from secondary school graduates. This is coming in spite of the high amount of funds invested on education both by the federal and state government. Adeyemi says that the people have placed high premium on secondary school system to be more than what currently is in a way that 'a given quantity of output is obtained with minimum input'. But with the current abysmal performance at the two examinations, certainly, there is an element of inefficiency in the system.

Reports coming from all the states show that in public schools majority of students either repeat the class or dropout without taking their final examinations. This increase in the fail out percentage in the public secondary schools; this is a waste of public resources. The system wastage experienced reveals that the objectives of secondary education have not been fully met because students' "desire for achievement and transition to tertiary institutions has become low recently. The 2010 West Africa School Certificate Examination (WASSCE)

results analysis revealed that only 25% of these students have passed with the National minimum requirement of five (5) credits including Mathematics and English at (WAEC, 2010).

Adeoye (1983) in Akinsolu, (2013) quoted by Adeyemi (2012) confirmed the aforementioned when he lamented the outcry by parents and the media over the decline in standards of operation of our educational system, the quality of students' performance in West Africa school Certificate Examination (WASCE) and their subsequent inability to secure gainful employment or admission at the completion of their secondary school career despite the huge inputs into the system by various stakeholders. Since expenditure on education is largely regarded as an investment, there is need for continuous appraisal of public secondary schools so as to ensure both cost effectiveness and prudence, which seem appropriate just as we have in the commercial and industrial sectors.

2.4Resource Utilization in Secondary Education

In aresearch papertitled: *Resource Utilization and Internal Efficiency in Nigerian Secondary Schools: Implication for soci problems of education* Olatoun (2011)says educational managers of the state public secondary schools are faced with the challenge of how to convince the various stakeholders of education of their capability in efficient utilization of resources allocated to their schools.

The poor performance of public secondary school students in public examinations coupled with inefficient utilization of resources, border on the issue of standards, when compared with what is obtainable in private secondary schools in the nation as whole.

The main focus of this study is an appraisal of the system's efficiency as the huge investment in the education industry seems not commensurate with the output. Where the raw material (inputs) of a factory does not produce the expected quantity orquality orboth of

output, the investment would become a waste; and such wasted investment could as well have been used elsewhere perhaps profitably.

Parents, education planners, stakeholders and all concerned are of the expectation that school managers (which in this case begins with the State Ministry of Education to school principals) should make judicious use of the scarce educational resources in ensuring that students stay for the minimum number of years expected in the school system, thus promoting high efficiency in the system if they come out with required of expected results at external examinations. Hence it is essentially necessary to point out that, the promotion of high efficiency inthe school system would significantly reduce wastage in the system to a minimum.

We all know that in formal education the process refers to whereby the subject teacher impartsthe required knowledge to the student which is thenseen through the student's passing of an examination. However, formal institutions do not necessary always get students pass examinations and hence have wasted the valuable time of the teachers, and as we have pointed out above, such funds in this case teachers' time would be used elsewhere.

Olatoun (*ibid.* 2011) observe there are there prominent areas in which wastage may occur in secondary schools. The first cogent reasons that would necessitate a student to drop out and cannot complete secondary education are: death, which is inevitable; inability to cope financially, for example cannot pay school fee or acquire necessary educational material, or cannot meet up with own personal upkeep. It could be the inability to cope academically, for example due to ill health which may prevent students fromkeeping up with academic requirements. Yet there are other reasons; students' parents may have been transferred and the students cannot continue with study at the present school and must seek transfer if he/she wishes to continue with study elsewhere. These are some of the reasons why a student may be unable to continue with secondary education.

Secondly, another area that would constitute waste is where students repeat class because of examination failure or due to other reasons thus completing the secondary school education in more than the required number of years. Students who take more years before completing their secondary education havewasted public funds, and havemade the secondary education investment inefficient.

Further, a majorwaste is a situation whereby students fail to pass required number of credits at WAEC or NECO, and are unable to secure admission into tertiary institutions for further educational qualifications. Indeed, a high proportion of the products of the public secondary school system seem unable to enter tertiary institutions or the labour market at the completion of their courses due to failure in the Senior Secondary School Certificate Examination (SSCE) unlike in the private secondary schools.

Ideally, there should be a progressive flow of students from one grade to another. The wastage factors earlier specified are elements of inefficiency, which are important educational problems worth investigating. It denotes that inefficiency of an educational system constitutes a sort of waste to the system. If a student repeats a class once, he/she will spend seven years instead of the six years; or ten years instead of nine years. Automatically this is an additional cost to the public purse.

Under the current 9-3-4 education system, if at the end of the final three years of senior secondary school, a student fails the terminal examination and he cannot proceed into the tertiary level; it means the student has to repeat the final year by registering WAEC/NECO again; this is incurring additional costs.

With large yearly numbers of dropouts,it implies that the secondary school system is not functioning efficiently as expected when compared with the input injected by way of teachers'salaries, instructional materials, classrooms, etc. There is therefore, the need toestablish parameters to assist in measuring set standards of public secondary schools in

Nigeria, especially in Jigawa state which has witnessed even worse case of failures as revealed in the last WAEC examination results.

2.4.1 Efficiency and Effectiveness in Secondary Education

Efficiency is defined "as competence, it is the ability to do soundly well or achieve a desired resources without wasted energy or effort.

In another vein, effectiveness/efficiency can be achieved when students are trained in senior secondary schools and graduated to meet the demands of the higher education programme in Jigawa State.

We draw from Adeyemi (*ibid*) in defining what efficiency in education is. He argued that efficiency refers to the ratio between the output of an organization and the input used in producing output. In efficiency, the goal has been to see how outputs of qualified students produced could be kept at the same level even when inputs (funds, etc) level is reduced (Owolabi & Akinwumiji, 1992).

Adeyemi stated that efficiency in education, otherwise called internal efficiency, is the relationship between the outputs and inputs of an education system. Output of an education system is the number of successful completers of the course of study while an input to an education system is the number of students-years used by all students who passed through the system. Internal efficiency is the extent to which resources made available to the educational system are being used to achieve the objectives for which the educational system has been set up. In this regard, the input into the system and the output from it needs to be measured. The inputs include classroom teachers, furniture, textbooks, etc and all these can be qualified as the cost per student per year.

Thus, the input has to be in terms of student years. The outputs of the educational system are the graduates from that system. In order to measure internal efficiency, a researcher needs to do a cohort analysis. The cohort analysis simply tells the history of a

particular level of education up to the time the group of students leavethe level. As such, it showsto what extent the educational system is able to use its raw materials (students) in the production of output (graduates). In this regard, the cohort analysis would show the flow rate in the system such as the promotion rate, repetition rate and the dropout rate of students. If the system is able to see the students through the system in the shortest possible period, then the system is efficient. In another form, a system is efficient if the wastage rate of the system is low.

Babalola (2003) observed that, the smaller the wastage rate, the more efficient the system. In view of the foregoing, this study tries to determine whether or not secondary schools (in this case, in Jigawa State) can be said to be internally efficient. It also attempts to determine whether or not a relationship exists between school variables and internal efficiency of the schools in order to correct erroneous impressions.

Effectiveness

Effectiveness can be defined as the extent to which an organization actual output matched the output desired from it and efficiency is assessed by comparing output to input.

According to Scheerens (1992) effectiveness and efficiency from an economic perspective, are invariably related to the production process and can be summed up asa transformation of inputstooutputs. Inputs of a school system include students, staff salaries, infrastructural facilities e.g. desksand chairs, laboratory equipments, physical facilities etc. outputs includes students' attainment at end of schooling.

The diagram, below are example of input/output system

INPUT	THROUGH PUT	OUTPUT
• Adequate physical facilities • Adequate instructional materials • Adequate teaching & Non-Teaching Staff • Adequate Financial Resources	• Effective teaching • Effective supervision/monitoring • Adequate effective evaluation	• Qualitative Education and performance of students in internal and external examination

Source: from Nwanwu N.A (2003) Page 3.

Teaching effectiveness has been accepted as a multidimensional construct since it measures a variety of different aspects of teaching such as; subject mastery, effective communication, lesson preparation and presentation (Onyeachu 1996). The influence of teachers' teaching effectiveness on the learning outcome of students as measured by students' academic performance has been the subject of several studies (Adediwura and Tayo 2007; Adu and Olatundun 2007; Lockhead and Komenan 1988; Schacter and Thum 2004; Starr 2002). The above studies suggest that effective teaching is a significant predictor of students' academic achievement. Therefore effective teachers should produce students of higher academic performance. Poor academic performance of students in Nigeria has been linked to poor teachers' performance in terms of accomplishing the teaching task, negative attitude to work and poor teaching habits which have been attributed to poor motivation (Ofoegbu 2004). It has also been observed that conditions that would make for effective teaching such as resources available to teachers, general conditions of infrastructure as well as instructional materials in public secondary schools in Nigeria are poor (Oredein 2000).

Although teachers' strong effect would significantly influence students' academic achievement, other factors such as socio-economic background, family support, intellectual aptitude of student, personality of student, self confidence, and previous instructional quality have been found to also influence students' examination score either positively or

negatively(Starr 2002). To this end, Blankstein (1996) had stated that students' grades and test scores are not good indicators of the quality of teachers' instruction. In support of this view, a study carried out in Nigeria by Joshua et al. (2006) showed that Nigerian teachers condemn the use of student achievement scores as indicators of teachers' competence, performance or effectiveness. Since students' academic scores are not the only predictors of teachers' effectiveness, researchers have sought other fairer ways of evaluating teachers' effectiveness. Students, administrators, colleagues and the teachers' self evaluation have been used to evaluate teachers' effectiveness. Students' competence in the evaluation of the effectiveness of their teachers has been of great concern to researchers in education. However, studies have shown that students' ratings are valuable indicators of teachers' effectiveness Barnett et al. 2003); Imhanlahini and Aguele (2006); Pozo-Munoz et al. (2000). Despite the fact that there are research reports in support of students' rating of their teachers' effectiveness, Nuhfer (2004) and Pozo-munoz et al. (2000) warned that students rating should be one of a comprehensive evaluation system and should never be the only measure of teachers' effectiveness. The school administrators' evaluation has also been used to evaluate teachers' effectiveness. The accuracy of school administrators' evaluation of teachers' effectiveness has also been studied. Jacob and Lefgren (2006) found a positive correlation between a principal's assessment of how effective a teacher is at raising students' achievement and that teacher's success in doing so as measured by the value- added approach. The above study suggests that administrator's rating may also be one of a comprehensive evaluation system to measure teachers' effectiveness in secondary schools. The literature reviewed indicates that effective teachers positively influence the academic achievement of students. However, students' related factors were also found to have influence either positive or negative on students' academic outcomes.

2.4.2 Teaching Experience of teachers

Since teachers and teaching experience are important determinants of internal secondary education efficiency, Adeyemi (2012) argued that the length of teaching experience of a teacher has been an important factor determining how effectively the teaching –learning process in a school has been achieved. Researchers have found that "experience improves teaching skills" while "student tend to learn better at the hands of a teacher who has taught them continuously over a period of years" Waiching, (1994); McClelland, (1995). In our consideration, it is pertinent to examine how efficient the school system is in Jigawa State in terms of teacher experience.

Another factor in secondary school internal efficiency is the teaching force which has been a major variable in determining the quality of a school and of course its products. In this regard, the nature of the teaching force in any school can be examined in two different ways namely, teachers' qualifications and teaching experience. Teachers are one of the inputs the educational process; they constitute an important aspect in students' learning process and success.

Considering this point, Adeyemi (2012) observed Umeasiegbu (1991) as saying that "the level of performance in any school is intimately related to the quality of its teachers" while "the quality of any school system is a function of the aggregate quality of teachers who operate it". Adeyemi went on to observe that Mullens (1993) also supported the argument and remarked that the level of a teacher's subject matter competence is a prime predictor of student learning. He argued that it is not simply the completion of schooling that could contribute to a teacher's effectiveness in the classroom but actual achievement in terms of subject matter competence.

Teacher/teaching experience – Adeyemi (*ibid)* argued further that the length of teaching experience of a teacher has been an important factor determining how effectively the

teaching-learning process in a school has been achieved. Adeyemi stated that researchers have found that “experience improves teaching skills” while “students” tend to learn better at the hands of a teacher who has taught them continuously over a period of years” (Waiching, 1994; McClelland, 1995).

Teaching plays a central role in all educational reforms. The Delors Commission writes: “Improving the quality of education goes first through the recruitment of teachers, their training, their social status and working conditions, for much cannot be expected of them if they do not have the knowledge and skills, personal qualities, and motivation”. (“Education: A Hidden Treasure”. Delors Commission, 1958) in Adeyemi (2012).

Olatoun (2011) did a thorough job when he investigated the relationship between resource utilization and internal efficiency indicators in Nigeria public secondary schools with a view to appraise whether the public secondary schools in the country make the best use of resources allotted in turning out graduates (secondary schools leavers) with minimal wastage.

According to thiswriter (2011 *Abstract*), the correlation matrix obtained from the investigation shows that all variables of *resource utilization* have positive relationship with *internal efficiency.* The author observedthat resources are vital for the production function of the educational system. Indeed, resources allotted for secondary education service delivery hinges on finance. Unfortunately there is seemingly, low productivity of educational products in spite of the high amount of money invested on education.

The implication of these findings forsocio-economic problems is that adequate resources inmanpower and materialsare unquestionably vitalforefficiency in the secondary education systemhence,a low level investment in secondary education is a major cause of the failure of the secondary education system as shown by thedismal results obtained by

secondary school students at external examinations conducted by WAEC, NECO and other examination bodies nationwide every year.

Nigerians expect the secondary school system to be efficient in a way that a given quantity of output is obtained with minimum input but anecdotal observations of secondary school operations in Nigeria reveals that there are elements of inefficiency in the system. Majority of the students were repeating classes, dropping out and there was an increase in the fail-out percentage in the public secondary school; thus, constituting wastage. The system wastage experienced reveals that the objectives of secondary education have not been fully met because students'desire for achievement and transition to tertiary institutions has become very low recently. The 2010 West Africa School Certificate Examination (WASCE) results analysis revealed that only 25% of these students passed with the National minimum requirement of five (5) credits including English Language and Mathematics (WAEC, 2010).

Adeoye (1983) in Akinsolu, (2013) in Olatoun (*ibid*) confirmed the aforementioned when he lamented the outcry by parents and the media over the decline in the standards of operation of our educational system, the quality of students'performance in West Africa School Certificate Examination (WASCE) and their subsequent inability to secure gainful employment or admission into tertiary institutions at the completion of their secondary school career despite the huge inputs into the system by various stakeholders. Since expenditure on education is largely regarded as an investment, there is need for continuous appraisal of public secondary schools so as to ensure both cost effectiveness and prudence, which seem appropriate just as we have in the commercial and industrial sectors.

Ideally, there should be a progressive flow of students from one grade to another. The wastage factors earlier specified are elements of inefficiency, which are important educational problems worth investigating. It denotes that inefficiency inan educational system constitutes a sort of waste inthe system. If a student repeats a class once, he/she will

spend seven years instead of the six years, and this is an additional cost to the government. Worse still, if at the end of the six years, a student fails the terminal examination and he cannot proceed into the tertiary level according to plan , she will have to re-enter the course thereby incurring additional costs.

The aforementioned situation implies that the secondary school system is not functioning efficiently as expected when compared with the inputs injected. There is therefore, the need for establishing parameters to assist in measuring set standards of state public secondary schools in Nigeria. Thisstudy investigatesthe resource utilization and the internal efficiency of state public secondary schools in Nigeria.

The study sought to accomplish the following objectives:

1. To examine the quantity of resources supplied tosenior secondary education in Jigawa State from 2009 – 2013.
2. To examine the quality of resources supplied tosenior secondary education in Jigawa State from 2009 – 2013.
3. To examine the quality of teaching and learning in senior secondary education in Jigawa State from 2009 – 2013.
4. To examine the extracurricular activities in senior secondary schoolsin Jigawa State from 2009 – 2013.
5. To examine availability of guidance and counseling services in senior secondary education in Jigawa State from 2009 – 2013.
6. To Determine the quality of educational output of senior secondary school in Jigawa state from 2009 to 2013
7. To examination the quantity of educational output of senior secondary education in jigawa state from 2009 to 2013

Educational managers of the state public secondary schools are faced with the challenge of how to convince the various stakeholders of education of their capability in efficient utilization of resources allocated to their schools. The poor performance of public secondary schools students in public examinations coupled with inefficient utilization of resources, border on the issue of standard, when compared with what is obtainable in private secondary schools in the state.

The main focus of this study is an appraisal of the system's efficiency as the huge investment in the education industry seems not commensurate tothe output. The expectation of all concerned is that school managers should make judicious use of the scarce educational resources in ensuring that students stay for the minimum number of years expected in the school system thus promoting high efficiency in the system. The promotion of high efficiency of the school system will reduce wastage to the barest minimum. The following constitute general wastage within the secondary school system, towhich state public secondary schools arenot an exception:

1. Students dropping out of the secondary school system because of death, inability to cope financially, inability to cope academically, transfer of parents from one area and thus not being able to complete the programmes of study.
2. Students repeating class because of failure, thus completing the course with additional numbers of year(s).
3. A high proportion of public secondary school products seem unable to enter tertiary institutions or the labour market at the completion of their courses due to failure in the Senior Secondary School Certificate Examination (SSCE) unlike in the private secondary schools.

It has beenproven again and again that for secondary education tomove beyond the present level, secondary schools need skilled teachers ready to cope with the current

knowledge explosion and to manage an ever growing and complex educational system. Here the weight of improving student performancerests on teachers who must be able to integrate into their programs new subjects, such as environment, health science, human rights, democracy, and new technologies, such as information and communication (ICT). Thus, teachers of the new millennium must be better trained and motivated, and teacher training must be ongoing – that is, a permanent recycling process that maintains of new skills. Though working within difficult economic and pedagogical environments, teachers do not always receive support and are often not motivated. Improving their environment is therefore essential for the success of all educational reforms. Mechanisms for involving teachers in management of schools should also be encouraged.

The concept of quality has many dimensions: the conditions and consequences of learning, the socioeconomic and cultural relevance of the content of teaching, and the impact of the environment on the educational process. All these dimensions lead to the notion of internal and external efficiency of the system, with the resulting need to consider dropouts and the quality and quantity of the certificates awarded in relation to the needs of the country (Olatoun (2011).

The use of the economic investment theory of cost-benefit analysis (CBA), used in theoretical framework for the study by Olatoun (2011) serves as a guide in calculating the costs of education, estimating the benefits from education and comparing the benefits with the costs to obtain the returns expected. This to a large extent assists in decision making as to the future pattern of resources allocation within the education sector observed by Akangbou (1987) in Olatoun (2011).

According to Olatoun (*ibid*), the operations of secondary education in Nigeria rest solely on resources that accrued from generated revenue by the various stakeholders which serve as the national income of the nation. Nigeria as a nation receives her income from

money generated from oil and uses part of this to fund education. The state governments add to whatever is received from the federal through their own internally generated revenue towards the sustainability of the state and its education programmes. This calls for the need to analyze the cost-benefit of anyeducational programme to ensure that the system operates with minimal wastage.

From the above mentioned we can agree that resources constitute a very important factor in the functioning of the educational system as the success of the system or otherwise depend on the manpower and materials made available as stated by Olatoun (2011) in Oni (1995). In support of this, Fabunmi (1997 as quoted by Olatoun 2011) identified resources in an educational establishment to include students, personnel, physical facilities, curriculum and finance. These are the major variables that determine the rate of educational development of given country.

As we mentioned above, financial resource has equally been recognized as a major resource in the development of any educational system. The National Policy on Education (1998) and its subsequent amendmentsrecognize this fact stating that: “education is an expensive social service that requires adequate financial provision from all tiers of government for a successful implementation of the educational programmes in the country”.

Gravenir (1984) observed by Olatoun (2011) traced the history of education finance in Nigeria from the colonial period up to the latter part of the 1970’s. He did a comparative analysis of state government expenditure on secondary education fromsessions. He discovered that three major issues constituted problems for secondary school finance in boarding system in secondary schools and government control of secondary schools. He suggested that schools should embark on large scale mixed agriculture to generate necessary funds, so as to limit the extent of their dependence on government for finance.

Olatoun (2011) went further to observe, this time in Ndagi (1994) who carried out a study of the trends in educational finance in Nigeria under military rule between 1968 and 1978 and discovered that Federal Government's resource allocation to education was second only to defense, but exceeded resource allocation to other social services like agriculture and health. Of the total resources allocated to secondary education, over 50% went to personal emoluments of staff and over 30% went to maintenance of students while less than 15% were used to purchase educational materials and equipment. Education had the highest percentage of the total budgetary allocations by state governments.

Also, Olatoun (2011) observed in Durosaro (2000) who believed that a very vital aspect of the function of the school manager was the management of the school funds and facilities. While Oguntoye (1983) (noted by Olatoun) stated that finance is positively related to the quality of education. In his study,*An Input-Output Analysis of the Nigerian Secondary School System*, he discovered that recurrent expenditure on maintenance and repairs correlates positively with the quality of secondary education on Ogun State, perhaps in other states as well.

Apart from finance, another vital resource in development of quality secondary school education with minimal wastage is the human resources factor. They are seen as the greatest and most precious asset or factor in the production process. This is because while man is flexible financial resources may not be that flexible. In fact the effective management of man is the successful achievement because human resources can be manipulated and made to act as desired. This is the case of teachers whose performance can be increased by retraining, and adequate inducement (Ahmed, 1991).

Olatoun (2011) observed in Ndiomu (1992) who stressed that the indices for measuring national growth and development hinged on the conditions of the human resources that such a nation possesses. However, poor staffing has been a recurring feature in the

country's educational system in (Amoo 1982). He said that Amoo stressed further in his study "demand and supply of secondary school teachers in Osogbo Local Government Area of Osun State", that there were wide gaps between the demand and supply of qualified teachers in the state. Shortage of qualified teachers demand as revealed by the findings of this study was expressed as 44% in the 1978/80 session, 56% in the 1980/81 session and 51% in the 1981/82 session. He argued that the planning for the teachers supply by number and qualifications for commencement of free secondary education in the state was faulty and inadequate. He stated further that the situation would worsen if efforts were not made to train well-qualified teachers.

Olatoun (*ibid*) noted in Ogunsaju (2000) who asserted that adequately qualified staff must be employed and proper monitoring system for developing these human resources must be put in place to ensure school effectiveness. He further stressed that the situation whereby unqualified and inexperienced teachers are made to teach the students should be discouraged and the need for recruitment of qualified teachers with relevant teaching experience.

Also, Franke – Dolor (2002) quoted in Olatoun (2011) asserted that of all the pre-requisites for effective management of an organization, the most vital is the human resources. The success of any type of organization, be it social, political religious or economic, depends to a large extenton the human beings that make up the organization. Human beings take decisions, which provide the knowledge, energy and the co-operation through which organizational objectives are achieved.

On physical and material resources, its importance, need and relevance towards the success of every educational programme cannot be over emphasized. The availability of adequate school buildings, classrooms, chairs, desks and other facilities are necessary for the attainment of educational objectives. In Hallak (1990), Olatoun identified educational facilities as the major factor contributing to academic achievement in the school system.

These include the school buildings, classrooms, furniture, libraries, laboratories, recreational equipment and other instructional aides.

Olatoun (2011) collaborated this in Adeboyeye (1999) through his definition of physical facilities as the essential materials that must be put in place and into consideration for the objectives of the school system to be accomplished. He said that Adeboyee (*ibid*) stressed further that the availability of these facilities determines the quality of instruction and performance of students in the school. Earlier mentioned, Oyedeji (2000) as Olatoun noted, has classified school plant into site, building and equipment, which includes permanent and semi-permanent structures such as machines, laboratory equipment, the chalkboard and office assistants' tools such as brooms and cleaning materials. School building is said to have positive impact on the comfort, safety and academic performance of the student.

In the same vein, Olatoun (2011) stated that Ibitoye (2003) in his study relationship among secondary school size, he said that resource utilization ad school effectiveness in Ilorin Local Government Areas discovered that there is a high relationship between enrolment and the utilization of classrooms provided for teaching – learning endeavour. The result implies that the higher the number of students in the school, the higher the utilization of the classrooms. The study depicts the relevance of physical resources in meeting the increase demand of school enrolment.

Efficient management of school physical facilities is mandatory in order to make the school a pleasant, safe and comfortable center for the community activities says Adeboyeje, (2000) in Olatoun (2011). According to Adeboyeje, the school administrator has to play a major task in the school, which is the management of all the physical facilities. He further stressed that the school administrators should be conversant with universal principles of managing physical facilities. Proper understanding and application of such principles will

contribute to correcting deficiencies in physical facilities management practices, which in turn facilitate instructional programmes in schools.

Olatoun (*ibid*) pointed out that Akinsolu (2003) stressed the importance of physical facilities in the management of educational system. In her study on provision and management of facilities for primary education in Nigeria, she pointed out that there is a gross inadequacy in facilities for primary schools with availability to required percentage ranging from as low as 1.5 to a maximum of 35.2%. She opines that all stakeholders need to ensure adequate provision of physical facilities in all educational system, be it primary, secondary and tertiary levels to enhance learning and for improved productivity.

To show their relationship in adequate provision of physical facilities in all educational system stated above, Olatoun (2011) stated as has been stated before internal efficiency of educational system is the relationship of its outputs (graduates) to its inputs (resources). Longe and Durosaro (1988) referred to internal efficiency s the extent of educational system's ability to minimize cost and reduce wastage resulting from repetitions, dropouts and failures. Wastage in education is used to describe those who are uncertified school leavers who left the system before the completion of the course. Wastage may occur between grades, that is, those who repeat the grade and those who dropped out of the system between the grades.

Adeogun (1995) in Olatoun (2011) conducted a similar study, which evaluated the internal efficiency of junior secondary in Oyo State between 1986 and 1990. The study revealed that the system was not internally efficient. The wastage rate decreased from 8.7% in 1989 to 4.7% in 1990. For thatstudy, the internal efficiency centredmainly on public secondary schools in Osun State and it coveredtheflow of a six-year period of inputs and outputs. Durosaro (1985) conducted a study relating resource allocation to internal efficiency of secondary education in Bendel State(now Edo and Delta States) between 1975 and 1983.

The findings in the study revealed that wastage rate on secondary education recurrent expenditure was 19.19% of the total recurrent expenditure out of which repetitions contributed 4.45%, dropouts was 0.68% while failures of students was 14.45%. He also discovered that the total recurrent expenditure and wastage rates on secondary education in Edo and Delta states showed significant correlation over the period of study, this is, as the resource allocation increased, wastage rate decreased.

Olatoun said that Adeyemi (1989) investigated internal efficiency of Technical Colleges in Lagos State. Data were collected through the use of a questionnaire. The data were analyzed with the use of simple percentages and the re-constructed cohort method. The study found that the wastage rates were 2 and 3% and wastage ratio 1.00 and 1.08 respectively for the two sets of cohort used. The performance of students was positively related to the rate of utilization of the available resources vis-à-vis human and physical resources.

All the studies reviewed served as the major spring-board upon which this study took off. The study used the approach of these authors in carrying out this research. The study examined the extent of resource utilization on internal efficiency of public secondary school in Nigeria.

2.5 Teaching and Learning.

According to Mohd (2013) teaching involves the process of transforming or imparting knowledge from the teacher to the learner.

The teaching/learning process is influenced by the method used to impart knowledge in the classroom. Hence there arises the need for teachers to adopt teaching methods that would enhance effective communication ideas between the teacher and learner.

Teaching facilities are abasic necessity if effective teaching/learning is to actually take place. In line with thus, Enaohowo and Aferakeye (1989) strongly warns that in

theabsence of teaching materials e.g. books, chalk, audio-visual and other school equipment empty buildings cannot be effectively utilized. In the same vein, in a situation where teaching equipment and other materials are supplied without the physical structures to put them tomaximum utility, such education and assets would definitely be destroyed by termite sun, rains and other hostile elements..

Amasuomo (1999) in his view says that a carefully organized seating arrangement in the classroom could also contribute to a conducive learning environment He further emphasizedthat a poorly organized seating arrangement in the classroom creates problems of visual efficiency. Monitoring of student work or activities and supervision of their desk work becomes effected.He also observed that most school principals ignore the importance of the class traffic circulation and visual efficiency in their classes. Instead they place more emphases on the number of student the classrooms can accommodate for maximum utilization.

Asied-Akrofil (1981) also states that: - As the teacher goes road the classroom from group to group he should be able to guide the student's especially slow learners who need extra-attention and encouragement.

Amosuomd (1999) observed that overcrowded classroom fail to serve as effective learning environment because they are characterized by poor teacher student interaction. Similarly a classroom with properly arranged seat that ensure good traffic circulation and visual efficiency creates a favorable environment for effective teacher student's interaction.

Akabue (1991) asserts that a good learning environment has the advantage of fostering desirable behavior and attitudes developing problem solving skills and creative through encouraging student interaction and when well-planned and properly arranged can be effective in accommodating learner-centred method

Therefore adequate spaces in classroom are very important this is because teacher can

have enough space to demonstrate and go round to assist the slow learners.

2.6 QUALITY OF RESOURCES

According to Adeogun (2011) there is a high student teacher ratio in most public schools.This is as a result of not employing additional teaching staff to meet up with the increase in the enrolment which in turn negatively altersthe educational quality. Hallak (1990) concludes that students' academicperformance relies mostly on the qualityof teachers that teach them.

Farrant (1984) enumerated the following as necessary qualities teachers should possess. These include physical energy, initiative, self-control, decisiveness, sincerity, loyalty and leadership. All senior secondary school teachers should make sure they have all these qualities so as to function effectively.

A. Mode of teaching:-

1- Guided Discovery

2- Chalk and talk method

3- Games

4- Field-trips

5- Discussion

6- Resources persons

7- Debate

8- Practical Demonstration.

Teachers should be encouraged to undertake the following:

1- Team teaching

2- Excursion / field trips

3- Improvisation of instruction material

B. The effective teacher should:

1- Be conversant and have the knowledge of the curriculum.

2- Break the curriculum into syllabus

3- Break the syllabus into scheme

4- Develop lesson from the scheme

5- Have mastery of the content areas

6- Identify activities to be carried at by the student

7- Be resourceful and use his initiative in planning classroom instruction

8- sacrifice his time for the benefit of the students

9- passes knowledge of the concept of education, assessment and testing

10- Keep good records.

Quality has been defined differently by different scholars. To some, quality is seen as degree of excellence while others see quality as a level of value in a product. According to middle hurst (1992) perceives quality as a grade of achievement, standard against which to judge others. Living stone (1994) justifying the need for standard, opined that "life without standards is the most barren of all sweet in the mouth but bitter in the belly" To him any human endeavour that is not subjected to quality control based on certain laid down criteria standard is worthless since standard gives a common meaning to quality.

The key function of quality control therefore, is to ensure that an erosion of standards does not occur or is prevented. Quality control as applied to education in Nigeria is closely bound with that of efficiency and effectiveness of learning which is primarily determined by the quality of teacher (subject knowledge pedagogical skills) followed by classroom environmental factors like resource curriculum, guideline, assessment practice as well as broader school environment such as school, culture and organization. It is multidimensional and embraces all the elements mentioned above as well as the facilities and activities of the school including teaching, student learning, staffing, buildings, equipment, services to the

community and the school environment.

Quality may also be consider in term of how adequate and accessible the facilities and materials needed for effective teaching and learning are. Within the context of the twenty-first century quality may well mean curriculum configuration that prepare student for a world of change, instability and difference one which equips them with the ability to create, Imagine, Innovate and adapt as well as furnishes the teacher with a knowledge of appropriate pedagogical practices, a we do instructional repertoire that allows them to create multiple path to the subjects they teach and become adept at teaching student how to pose and solve their own problem.

C. Laboratory:

Davidin Ladan (2013) observed that poor laboratory equipment and lack of relevant text books are among the factors responsible for low student performance in the science subject such as Biology, Physics and Chemistry.

It is pertinent to note that Laboratories provides suitable environment for practical training, it is such a setting that the trainer guider and exposes his trainer students to a variety of instructional material and other teaching strategies. However, where they are liking the teachers can only minimally function.

D. NON-Teaching:

According to Enaohwo Eferekeya (1989) refers to the housing accommodation for staff and students. It has been observed that several attempts have been made in recent times to expand the residential facilities in secondary school for the benefit of both students and staff Adigun (1997). Hence, residential or staff quarters and students hostels are commonly found in most senior secondary school one of the rationales for making such effort is to promote staff productivity and student's academic or excellence within and outside the

learning environments.

According to Aje (1992) and Adigun (1997), poor maintenance culture of the residents in the dilapidated structures of the residences.

- Increase of population make the issue of hostel accommodation a highly competitive venture.
- Inadequate funding to the authority concern fails to renovate the residential for staff and hostel for students.

2.6.1 INSTRUCTION MATERIALS

Instructional materials are important for effective teaching and learning to take place. These materials can be sourced locally within the school environment in the school community where the school located.

A. TYPES OF INSTRUCTION MATERIALS:

- Journals, Prints Book, Handout etc.
- Chalkboards, Graph, etc.
- Electronic, Radio, Computer, etc.
- Audio Visuals, Slides, tapes, FilmsTV, etc.
- Visual Charts Photographs etc.

B. SOURCES OF INSTRUCTION MATERIAL:

- Creation from resource centers.
- Donation from several sources.
- Collection of items from the school environment locally made.
- Production by teachers and students.
- Distribution to the school by either the state government, federal government, philanthropists or the N G O‘s.

C. MONITORING INSTRUCTION TO ENSURE QUALITY INSTRUCTION:

To improve the classroom teaching governments have to take the following measurement on teacher's performance discharging their activities.

1- The monitoring unit of the ministry of education like in Jigawa the SEIMU should constantly visit schools to check classroom instruction.
2- The principal should also check and inspect daily lesson plans and the instruction material.
3- Principal should organize in house seminar and workshops for His/hers staff to discuss and appraise their classroom teaching.
4- School based management committee and P.T.A. should also visit school regularly to assess.

2.7 Classroom Activities

According to Emmanuel (2007) highlighted the following as necessary for effective instruction:

A - Knowledge of the subject thought

B- The methodology

C- Teacher student relationship

D- Utilization and provision of educational equipment and facilities

E - Provision and improvisation of instruction and materials

F- Monitoring and evaluation of teaching learning activities

G- Maintaining discipline in the classroom.

There are the necessary ingredient a classroom teacher should poses in order to function effectively to achieving the stated goal and objectives.

2.7 .1 Infrastructural facilities

According to Eferakeya and Enaohwo (1989) instructional facilities have direct

relevant with teaching and learning .They are essentially as a centre for teaching and learning inschool. The essential things for any senior secondary school to function are as follows:

- Building of classroom/hostel,toilet,kitchen, furniture, office, books, Laboratory equipment,computer and internet, water supply, Library.
- Workshops, School bus, electricity

Hunt (1958) Further classified equipment as either permanent or should movable he further explains that fixed desk plat forms or supplies cases arc example of permanent equipment while changeable desks 'furniture, audio-visual aid as well as other books are classified as moveable equipment.

The purpose of making both physical structure, teaching equipment and other learning materials in senior secondary school is a matter of concern by all stakeholders in the education industry. Teaching facilities are the basic tools for effective teaching and learning to take place in any senior secondary schools.

According to Eferakeya (1989) and Enaohwo in some schools facilities like flowers and tress which add beauty to the school, are often neglected and destroyed. This shows no direct teaching or educational purposes .These trees and flowers are beautiful they also enhance the effective teaching and learning. Dispensary: is very important in any secondary school, this is because it provides health care services to the students any time.

2.8Extra-curricular activities and academic performance inSecondary Schools

School failure or academic performance continues to be problematic since both concepts are controversial. The relationship established between the two has led to numerous criticisms and to adopting different approaches to address the issue. On one hand, an assessment of school failure, even its very name, has strong negative connotations and there are broad-based problems in drawing the borderline conceptually between failure and success (Marchesi & Hernandez, 2003). Additionally, the tendency to stigmatize the "failed"

student, and the absence of shared responsibility in factors such as family, the media, society itself, etc., make it really difficult to take on the study of this phenomenon. And so other types of terms or labels are adopted, such as “low performance pupils” or “lack of preparation”. Many causes or agents have been studied as the etiological starting point for investigating the phenomena of school failure or success. Most notable among these are: the role of the family, family adaptability and cohesion (Gonzalez, et al., 2003), parental expectations (Marchesi & Martin, 2002), social change and the media (Sanchez, 1997; Pereira, 2003), the educational system, reform and policies (Marchesi, 1995; Martinez & Miquel, 1998), and other psychological aspects such as intellectual capacity (Descals & Rivas, 2002), motivation (Navas, Sampascual & Santed, 2003; Broc, 2003), self-esteem and self-concept (Broc, 2000). Nonetheless, there seems to be agreement among most auth ors to explain failure from a multi-causal perspective where the phenomenon is analysed at several levels, and where multiple variables are involved.Along these lines, Orden and Gonzal ez (2013), in their review of variables that make the difference between lo w performance and sufficient performance, affirm that most of these variables are modifiable through formal education. Undoubtedly, school performance has been one of the indicators or predictors mostused and most related to failure. This has been assessed along traditional lines, and perhapsunfairly, from a basically quantitative viewpoint based on scores or marks obtained in different school subjects. In addition to performance, numerous variables have also been related aspredictors of either failure or success as a function of the tendency or importance they have inthe student’s marks or scores. But there are controversies not only in delimiting and relating concepts of failure and performance or in studying variables supposedly related to both. Another relevant aspect Extra-curricular activities and academic performance in secondary students under investigation has been determining an adequate methodological system for studying school failure through the prediction drawn from academic performance.

In this effort the most used methods are discriminate analysis, multiple linear regression or logistic regression analysis, among others (Garcia, Alvarado & Jimenez, 2000).

Different activities in which students participate, both inside and outside the school itself, are among the multiple situations or agents that can have an effect on these concepts.

Extra-scholastic activities have been associated with an improved educational level, moreInterpersonal competencies, higher aspirations and a better attention level (Mahoney, Cairos& Farwer, 2003), increased critical thinking and personal and social maturity (Bauer & Liang,2003), higher motivation (Hollway, 2002), and gene rally speaking, with great benefits thatserve to bridge school activities with those performed outside the academic setting (Noam,Biancarosa & Dechausay, 2003).This situation has given rise in our society to an almost massive involvement in after-school activities, activities for supporting, complementing and strengthening not only the student's school performance, but also his or her personal development and other aspects such as leisure, health, values, etc. These activities are often grouped into two well-differentiated types: extra-scholastic (activities outside the school program) and extra-curricular (complementary activities carried on within the school setting, and generally under school auspices).

However, in popular speech the two concepts are often used as synonyms, despite that differences can be noteworthy, with the first type depending almost exclusively on parents, and the second type being planned and carried out through the schools themselves. We currently are witnessing an increasing proliferation of activities, be they academic (private classes, foreign languages, music, etc.), sports related or cultural. Teachers on occasion complain that some students are over-involved in after-school activities and that these are chosen by the parents or are not well planned, thus failing to coordinate with or complement the activities carried out at school. Along these lines, Marsh and Kleitman (2002), state that extra-curricular activities selected and planned at the school are more helpful than those that

take place outside, since the latter often lack sufficient planning, order, and logical, coherent meaning.

The advisability of participation in after-school activities, what type of activities(sports, cultural, study support, etc.), number of activities, time duration, and so forth, formspart of an open debate within the academic setting as well as in the family and social setting.

On occasion we find families that have their children involved in numerous activities, alwaysmeaning it for their benefit; however, these situations do not always lead of successful results.

Sometimes we may even find children who suffer such consequences as fatigue, lack of concentration, saturation effect, stress, etc. As explained in the introduction, many factors and activities have been studied as predictors of high or low school performance. This paper seeks to analyze the relationship between participation in after-school activities and students' performance. One of the data that most strikes us is that, although the group involved in extracurricular activities shows better performance in terms of their average mark from the most recent evaluation, the same does not occur in study technique scores, where we see no difference. Having made this observation, we were interested in checking whether the type of activity influenced performance or not. It is evident that substantial differences exist for academic-type activities (largely related to school life: tutoring, foreign language, etc.) vs. sports or recreational activities, which were less related to the school environment.

2.9Guidance and Counseling

The importance of guidance and counseling program in secondary schools, include bringing to the students an increased understanding of the educational, vocational and social information needed to make wise choices. In our society there are many influencing forces responsible for the gradual recognition of formal guidance to young people in various educational levels. Counseling is a form of education, which the students receive from their

counselors. The essence of incorporating guidance and counseling into the school system was to eliminate overwhelming ignorance of many young people on their choices of career prospects and personality maladjustment among school children.

Education is said to be an accumulated experience that has a determinant effect on human character and mind. As a process, through which societal values, norms, principles, ethics, and skills can adequately be conveyed. Individuals need education in order to acquire this accumulated knowledge. The educational system in Nigeria is not far from the technical aspect of education in that it is all involving as a process of transmitting the societal norms and values toward the development of the nation. An overview of the colonial educational system provided, revealed gross inadequacy and unsatisfactory to the educational ingenuity, yearnings and aspirations of the nation. Thus many scholars option that this formal educations was parochial, elitism, regurgitate and irresponsive to the need and aspirations of the Nigerian society Uwaifo, V. O. & Uddin, P. S. O. (2009). In view of these, an effort to put quality into the Nigerian Education resulted in instituting a well define educational system that willbe instrumental in affecting national development. It is believed that education goals in terms of its relevance to the need of the individual as well as in terms of the kind of society desired in relation to the environment and realities of the modern world and rapid social changes should be clearly set out (National Policy on Education, FRN 2004). The bid to meet the nation's educational goals and aspiration brought about the 6-3-3-4 system of education. It was designed to restructure and inject functionality in to the nations' school system. The 6-3-3-4 system of education was seen as a creditable program able to bring about effective changes in the direction of technological development in a nation.Theessence of incorporating guidance and counseling into theschool system wastoeliminateoverwhelming ignorance of many young people on their choices of career prospects and personality maladjustment among school children. Based on these and more,

career officers and counselors were appointed to take the responsibilities in sensitizing students on the needs for effective career choice. Following the tremendous benefits of the first recipients of guidance and counseling in 1959, a group of untrained counselors were inaugurated in 1967 by the Reverend Sisters from St Theresa's College Oke-Ado who were the first pioneers of this body. Although these were untrained counselors but their efforts brought remarkable development in guidance and counseling inNigeria. With more emphasis placed onguidance and counseling as far back as 1959,1962, 1963 and1967 respectively,the peakof gettingaware of counseling profession in Nigeria was on 11th of November, 1976 following the formal launching of the body of counselorsknown as Counseling Association of Nigeria (CAN), with Professor Olu Makinde as the first President. In 1977, the association became affiliated to the American Personnel andGuidance Association (APGA) with Professor Ibrahim I. Kolo from Ahmadu Bello University as the current president.

In Nigeria, the organized guidance started in 1959 at St.Theresa's College, Oke Ado in Ibadan by some Reverend Sisters, out of concern for the products of their school. These Reverend Sisters were aware of the importance of guidance and counseling services in creating job awareness to their out-going students. They invited some resource people to talk to their final year students on the type of career they may engage in as they enter into the world of works. A total of 54 out of the 60 students benefited from the resource personnel advice and were placed in various jobs. The innovation was highly welcomed by the society because in later years this group of people, though not trained counselors, organized career talks, seminars and workshops for the class five students. Afterwards, the vocational guidance services spread to other public secondary schools outsides Ibadan and across the entire Nigeria. Officials from the ministry of education became interested in these organized services that this group of career advisers was invited to provide career talks and workshop for teachers and career masters. Later, the career advisers became a national issue. As to

make the Nigerian youth to meet up with the challenges of theglobal trend in technological advancement and by acquiring the relevant skills needed through the assistances from career counselors in school. Guidanceand counseling services has become an integral and essential component of Nigerian educational process for all students as they progress through the educational system. According to Egbochukwu, E. O (2008), the aims of school guidance and counseling services, which are base on a developmental hierarchy, are to provide student, with opportunities to:

i. Develop knowledge and appreciation of themselves and others.
ii. Develop relationship skills, ethical standards and a sense of responsibilities.
iii. Acquire skills and attitude necessary todevelop educational goalswhichare suited to
iv. their needs, interest and abilities, and
v. Acquire information that would enable them to make decisions about life and career opportunities.

Today, the services has gained prominence in the Nigerian educational system and many are becoming interested in counseling the youths especially students in making wise educational, vocational and social decisions. Counseling Service is one of the recent disciplines introduced intoNigerian Educationalsystem. With thecurrent trends intechnologicaldevelopment and globalization, it has become imperative to refocus.

Counseling and widen its scope to meet with the challenges of the modem society especially in Nigerian secondary schools. Counseling, according to Olowu, A. A.(1991). Is aninterpersonal relationship in whichone person attempts tohelp another person to understand and cope with his problems inthe area of education, vocation andfamily relationship. To ensure that this discipline, counseling wears a national outlook, the National Policy on Education FRN(2004) made it clear that counseling services should be rendered to students in schools. The aforementioned policy documentnoted that in view of theapparent

ignorance of many young peopleabout careerprospectsandin viewofpersonality maladjustment among school children, career officers and counselors will be appointed in post primary institutions (Federal Republic of Nigeria, 1981, p43). The above citation gives anideathat all students in theschool system shouldbenefit from counseling services. The counseling services became widely recognized as an important aspect of educational services. It was to fulfill the Nigeria government policy and as a way of implementing the policy statement, professional counselors are posted to virtually all the post-primary schools in Nigeria. The policy provision has been encouraging but appears to run short of many processes as well as the problem of implementation. The guidance counselor are expected to render counseling services which according to Ifelunni, C. S. I (1997) and Afia, N.J. (2013) include counseling, orientation, information appraisal, placement, referral, fellowship and evaluation. The services are not only to ensure quality in education, but also to help individuals acquire the knowledge, skills, and experience necessary to identify opinions, explore alternatives and succeed in life. No doubt Nwaokolo, C. (2006). noted that when counselors perform their expected duties in the school setting, then the students will be satisfied as their different academic, vocational, social and personal life aspirations are fulfilled.

2.9.1 Career Counseling

Career counseling is very fundamental to students' successful and meaningful living. Every student desire to be identified with a good profession, but this could only be achieved through effective counseling on the choices of career to maximize their potential. Career, though crucial to mankind, occupies almost all entire human life. This is due to the fact that career contribute enormously to all human activities, building individuals high self esteem satisfaction and adjusting to healthy life. It equally assists students to discover their innate potentials and acquire the needed knowledge for building lifelong profession. The word

career refers to the activities and position involved in vocation, occupation, and jobs as well as to related activities associated with an individual's life time of work Zunker, V. G.(2002). In view of this, adequate utilization of career counseling is required in public secondary schools in Nigeria if the nation's goals are to be attained. According to BAC British Association for Counseling BAC, (1984),the term counseling includes work with individuals and with relationships which may be developmental, crisis support, psychotherapeutic, guiding or problem solving.

Furthermore, counseling task also involve giving the client an opportunity to explore, discover and clarify ways of living more satisfying and resourcefully as cited in Macleod, J. (2003). Akinboye, J. O. (1987). observed that a good number of adolescent and youths in many Nigerian secondary schools have incongruent patterns between their aspirations and subject combination for the school certificate examination. The implication is that most Nigerian youths today engage in occupations not on the basis of—reasonable! choice but on the basis of fate. Case of maladaptive behaviors like violation of school rule and regulation, bullying, truancy, drug abuse, alcohol addition, sexual abuse, rape is on the increase among our school adolescents. Ofordile, L. (2002). noted that managing and modifying adolescent maladaptive behavior is still a big challenge facing teachers, student caregivers and the society at large. Students have variety of interest and abilities. This makes it difficult for them to choose a career. In vocational counseling, students should beprovided with detailed up- to-date useful information about different careers. The information should be centred on careful planning for a career, getting and retaining the career and adjusting effectively to it. The reason for all these is to let the students consider the various areas in harmony with their potentials and consequently choose the best career Arua, A. U. (2006).

2.9.2 Problems Affecting Guidance and Counseling in Nigerian Secondary Schools

One begins to question if counseling services are really planned and implemented properly in Nigeria Secondary schools. The great importance and significance attached toguidance and counseling program in our educational system makes it necessary for an effective guidance and counseling services in our present secondary schools.

This not withstanding however, is likely to face a lot of problems in term of implementation or providing the guidance and counseling masters opportunity to function properly in the school system. The 6-3-3-4 system is generally geared towards harmonizing the society with its technological needs as it attempt to develop the society as the need arises. The problem of inferiority complex, personal confidence, self motivation and inter-personal relationship lead to building of fellow students, this at times leads to truancy in the school. Also some students' do not have self confidence in terms of keeping themselves and do not want help from other people. The problems which manifest themselves in the social and emotional needs of the students which affect students learning conditions are as follows:

Drug Addition: This is major problem teachers, parent's school administrations and counselorsfind hard to cope with and resolving it, for it is usually not easy to get rid of this habit formation when students deviates from counselor's advice.

The Parent Teacher Association (PTA): This association provides room for dialogue between the teachers and the parents. This can be used as a yardstick that measures the progress of guidance and counseling program in the state, but lack of such association has been posing threat to the guidance and counseling program in schools in places where the association is established, parents tends to neglect the attendance of such meeting whenever they are invited, as such they cannot understand the problems of their children as well as their achievements in schools.

The influence of peer groups: The influence of peer grouped may hinder the progress ofguidance and counseling program among students where the child has been influenced by his friends to make choices of subjects and careers selection based on the interest of his peers. Being his/her friends they may decide to choose the same subject not necessarily considering their interest and capabilities.

Inadequacy of Guidance Counselor in Secondary Schools: In some schools one may find that there is only one or no counselor handling the guidance and counseling program and one person cannot effectively perform these functions satisfactorily due to the work load, while in other schools career masters are asked to carry them out.

2.9.3 The Roles of Principals and Teachers in the Guidance andCounseling Programme in Secondary Schools

Carew, P.F.C (1989) enumerated the role of principals in the provision of guidance and counseling services among which are:

i. To encourage board participation.
ii. Arrange for guidance activities in the time table.
iii. Recommended competent individuals for in service training in guidance and counseling.
iv. Commend teachers and careers masters,
    and encourage them in their efforts
v. Establish the procedure for the student referrals.
vi. Provide dynamic stimulation and leadership.
vii. Provide for expenditure in the budget

Teachers can also help since they are in a better position to observe their students frequently in a variety of situations than the counselor. In the vote of the teachers, it is extensively noted that teachers are not meant to take over the guidance and counseling responsibilities of the counselor because they lack professional training. They further added

that school administrators should recommend only graduates of education that offered the course in guidance and counseling and appoint them to serve as career masters.

2.9.4 The Roles of Guidance Counselors in Secondary Schools

In any school setting the roles of the guidance counselorinclude the following:-

- Taking charge of establishing school guidance program.
- Coordinating the guidance program in schools Define objectives of the school guidanceprogram for the benefit of the principals, teachers, parents and the students.
- Helping to disseminate career information of the students
- Playing major role in the identification of the guidance needs of the students.
- Supervising the building and maintenance of students' cumulative records in schools.
- Providing relevant data for the placement of students in the transition from junior to senior secondary schools.
- Assisting parents in relating student's interest, attitudes and abilities to current future educational, occupational opportunities and requirement.
- Providing counseling service to the students regarding their educational, vocational and personal social concern.
- Assisting students and parents to understand procedures for applying to higher institutions and for financing student' education.
- Functioning as a resource person to teach in exhibited classroom.

2.9.5 The Importance of Guidance and Counseling in our Schools

The importance of guidance and counseling programme include bringing to the students an increased understanding of the educational, vocational and social information needed to make wise choices. Ipaye, B. (1983). Opined that guidance within the Nigerian culture compliesfactor have on the students and the unique features of each school. Guidance and counseling can also be the process and techniques used by a counselor to assist

individual to cope with the problems in the areas of his/her life, so that he/she can become useful and contribute to the development of society in which he lives. One can assert that guidance and counseling is a process of development in nature by which an individual is assisted tounderstand, accept and utilize his/her abilities, aptitudes, interest and attitudinal patterns in relation to his/her aspiration. Prior to 1937 very little attention was given by thegovernment and education to formal guidance of young people in educational settings. Due to the rapid development the country is undergoing, it calls fortechnological advancement hence guidance and counseling needs to be adopted to the changes faced by the new system of education (6-3-3-4) system which is a two tier secondary schools system of six years duration and it is divided into two stages of Junior and Senior secondary each being a three (3) years duration. The Federal Ministry of Education initiated the establishment of guidance and counseling units in all secondary schools as a result of the apparent prospects and in view of personality mal-adjustment among the school children. Secondary school years are full of excitement, frustration, disappointment, and hope. It is atime students begin to discover what the future holds for them. With a comprehensivedevelopmental counseling programme, students can receive accurate information, concrete experiences, and successful planning to take the steps necessary to become a productive and contributing member of society. Together, professional school counselors, parents, and the community can provide .the most effective support for young people. More than a program of activities, secondary school guidance and counseling provides a relationship that exists between a student and his or her counselor, the one adult at school who will play a continued and key role during the duration of the student's secondary school life. From grade nine through twelve, the guidance counselor advises and counsels students about the selection of courses, relationships with teachers and other significant adults, relationships with peers, extra-curricular involvement and career and post-secondary school plans. Helping students to cope with pressures,

tensions, and the day-to-day problems of growing up in a complex, multi-faceted society is an integral part of the guidance department's functions. Guidance counselors serve a liaison function on behalf of the students. They facilitate discussion between school and home, teacher and student, school and college, school and employer, and other students. Getting to know the student well and understanding the student's aptitudes, abilities, and aspirations help the counselor carry out thisimportant function. The continuity of this personal student/counselor relationship and the value of trust and caring are at the heart of all guidance activities and services. Guidance counselors maintain students' records. A permanent record card and a student cumulative folder are kept in the guidance office. The availability of these records is important in conferences with students and their parents. The official transcript is prepared from the permanent record card and is used to transmit students' academic records to colleges and/or perspective employers, including the military. Information about a student is not released without the permission of the student and parent.

Secondary School Counselors Believe:

- Young people have dignity and worth as human beings.
- Young people need to experience significance in their school and community.
- Young people have the ability to succeed and become contributing members of our society.
- Young people need guidance and support from school, parents, and community as they seek to find their place in the society.
- Schools, parents, and communities that communicate and collaborate provide the most effective support to young people.
- Secondary School Counselors:
- Provide direct counseling services to students individually and in support groups.
- Provide education and support services to parents.

- Provide consultation services to teachers.
- Provide staff in-service.
- Facilitate referrals to community support services.
- Advise students concerning academic planning.
- Provide career guidance to students.
- Provide career information to parents.
- Maintain an up-to-date library of career and postsecondary school information.
- Network with post-secondary schools.
- Serve on school and community committees addressing the needs of young peoples

2.10 Summary and Uniqueness of the Study

The literature reviewed in this provided an in depth knowledge on the various parameters involved in the assessment of efficiency and effectiveness of senior secondary school education. The review also explored the various definitions, meanings, ideas and opinion on efficiency and effectiveness of education Jigawa state and opinion of principals and teachers towards assessment of efficiency and effectiveness of senior secondary school education as expressed by various scholars and researchers in field of science , social science and Education Administration Planning. While there are plenty of studies associated to the efficiency and effectiveness of senior secondary school education, very few studies are focused on assessment efficiency and effectiveness of senior secondary school education, particularly in provision of inputs towards education such as quantity of resources, quality of resources, quality of teaching and learning in the school, extra- curricular activities and availability of guidance and counseling services. The vital need for assessing the efficiency and effectiveness of education in particular and inputs in education in general was reviewed, where it was noted the two interwoven in most areas. The constraints impeding the development of senior secondary school education in Jigawa state and Nigeria in general

were also reviewed. The limitation of research work in the area assessments of efficiency and effectiveness of education in primary and tertiary institution is not covered.

These observations provided the uniqueness of the present study.

Consequently, the need analysis would enable the Ministry of Education Science and Technology, Education planners and administrators including governments organizations to effectively contribute towards the Assessment of efficiency and effectiveness of senior secondary school in Jigawa state of Nigeria.

The dimension of literature review established the significant role of principals and teachers in influencing qualitative education in Jigawa state .This is a assured as the principal monitored and provide feedback on the teaching and learning Processes and other school interactions. The leaders roles include visiting the classrooms to ensure classroom instructions which is associated with school goals, working with staff with co-operative sprit, improving instructional practices as well as sources secure and supply instructional facilities for a school environment conducive for effective learning. This study differs from similar studies conducted by Udom (2006) and Ladan (2005) which focus on its relationship between school physical environment and students academic achievement Kano state senior secondary school and the influence of the school environment on teachers motivation job satisfaction and students academic achievements in Kaduna state.

Furthermore this study covered the entire senior secondary school in Jigawa state. Principals and teachers of Jigawa state senior secondary school. This employed the use of stratified random sampling technique based on respective stratum of the population which resulted in wider representation or coverage of the population. The study make use of two instruments for data collection which was used i.e. principals questionnaire for Efficiency and Effectiveness of senior secondary education from 2009-2013. The second was Questionnaire on Efficiency and Effectiveness of senior secondary education in Jigawa state from 2009-

2013

The literatures reviewed above has synoptically indicated the relationship between the current study and the system theory. The system which is basically concerned with the inputs and outputs it is related to this study in the sense that the main focus of the study is on assessing the quality and quantity, efficiency and effectiveness of inputs and outputs made to education sector from 2009 – 2013. The literature also indicated the study of this nature has never been conducted in Jigawa State as such this current study is unique and the first of this kind at least in Jigawa State.

Secondly, the literature reviewed has explained the theoretical frame work, the literature make a review of various forms of efficiency and effectiveness, teaching and learning quality and quantity of resources extracurricular activities and availability of guidance and counseling services in Senior Secondary School in Jigawa State.

The study covered the whole Jigawa State and nine (9) zones in the state .

Therefore, this findings (study) is going to fill significantareas especially, in management and administration, teaching and learning in senior secondary school education.

The management which is appropriately concerned with professional and expert utilization of human and material resources for respective and qualitative production of outputs. The inputs of secondary education in Jigawa State would now be professionally evaluated to ascertain their quality, efficiency and effectiveness or otherwise.

CHAPTER THREE

METHODOLOGY:

3.1Introduction

The study investigated the efficiency and effectiveness of senior secondary school education in Jigawa State from 2009 - 2013.

3.2 Research Design

This study employed descriptive research design. A descriptive survey research involves a detailed and critical examination of topic or situation with a view to find out what is and how it is (*Ankweze 2009).*

Therefore, survey research design was considered the most appropriate for this study this is because it provides an appropriate modality for obtaining required information from principal and teachers of senior secondary education in Jigawa state. The researcher carried out survey designed study and analysis of five years of West African Examination Council (WAEC) and NECO result of Jigawa state public senior secondary school. Descriptive survey design was used to study the prevailing school materials quantity and quality as influenced by efficiency and effectiveness of senior secondary school principals and teachers as influencing their performance of assumed duties and school general conditions in terms of physical facilities and instructional materials.

The questionnaire format was developed by the researcher which contained both structured (closed ended) responses. However, the items on the questionnaire also seek facts and opinions of the respondents in addition, Liket rating scale was adapted for the weighing of the opinion in scoring positive statement are weighted 3,2,1 moving from adequate, average, inadequate, high, average, low, effective, ineffective, frequently, normal, infrequently, available, unavailable. The questionnaire was particularly designed for senior secondary school principals and teachers in Jigawa State, seeking their opinions on the

management efficiency and effectiveness in senior secondary education bearing in mind the quality, quantity of input and outputs. The questionnaire was divided into section 'A' contains the Bio-data of the responses. Section 'B' quality of input and output, section 'C' quality of teaching and learning, section 'D' contains extracurricular activities and section 'E' contains availability of guidance and counseling services.

Descriptive research according to Sammal (2010) is concerned with collection of data for the purpose of describing and interpreting existing condition, prevailing practices, beliefs, attitude on going processes, since this study gears to examining the efficiency and effectiveness of senior secondary in Jigawa state for five years from 2009 to 2013.Hence survey research become most appropriate in order to achieve the stated objectives of this research work. Furthermore, the descriptive survey research is used to examine both the quantity and quality of the teaching learning, instructional materials, infrastructural facilities, Extra-curricular activities, Guidance and counseling services. However, on the conditions adopted for this research work as it is in line with descriptive and survey researches are as follows:

Firstly, focus was made on this population of sample (430) compromises the principals and teachers of senior secondary schools in Jigawa state. Since all the subjects or items in the population cannot be studied. Sampling technique was used the manner of selecting the sample was stratified random sample and also pilot study was conducted in two senior secondary school in the state i.e. Government Girls Computer Roni and Government Day secondary school Korayel .Questionnaire was used for the purpose of these research work to 108 principal and 322 teachers .The researcher personally visited six zone out of the nine zones in the state Kazaure, Ringim, Gumel, Jahun, Dutse, Birnin Kudu, Hadejia, Birniwa and Kafin Hausa zone. The researcher also trained two assistant for the purpose of this research, after a week the researcher went and collected the filled questionnaire from the

research assistants' .The cross-tabulation between principal and teacher responses was obtained. Chi-square analysis was also conducted.

Kothari (2007), Chi-square, symbolized as $\chi 2$, is a non-parametric test of significance appropriate when the data is in form of frequency counts occurring in two or more mutually exclusive categories. A Chi-square test com-pares proportions actually observed in a study with the expected to establish if they are significantly different. The Chi-square value increases as the difference between observed and expected increase. Whether the calculated Chi-square value is significant is determined by comparing it with the value from table. If the calculated value exceeds the table value, the difference between the observed and expected frequencies is taken as significant otherwise it is considered insignificant.

Kothari (2007) notes that the following conditions should be met before the test can be applied. Unfortunately, Kothari (2007) has not given any explanation on the conditions.

i) Observations recorded and used are collected on a random basis. According to Gay (1976) it is the best single way to obtain a representative sample. In addition, it is required by inferential statistics to permit researchers to make inferences about populations based on behavior of samples. If observations are not randomly collected, then one of the major assumptions of inferential statistics is violated and inferences are correspondingly tenuous.

ii) All the members (or items) in the sample must be independent. This is to ensure that the occurrence of one individual observation (event) has no effect upon the occurrence of any other observation (event) in the sample under consideration.

iii) No group should contain very few items(less than 10). According to Yates (1934) the small data overestimate the statistical significance. Yates (1934) recommends this number as 5. Brown (2004) and Kothari (2007) concurs that controversies surrounds the number, some statisticians take this number as 5, but 10 is regarded as better by most statisticians.

iv) The overall number of items must be reasonably large

(at least 50). This assumption arises because the distribution of counts under the null hypothesis is multinomial, and the normal distribution can be used to approximate the multinomial distribution if the sample size is sufficiently large and the probability parameters aren't too small. It can be shown via the Central Limit

Theorem that the multinomial distribution converges to the normal distribution as the sample size approaches infinity. Although chi-square does not require that the population distribution is normal, the assumption is that the deviations between the observed and expected values are uniform.

v) The constraints must be linear (contains no squares or higher powers of the frequencies).

3.3 Population and Sample

The population of the study consisted of 1903 senior secondary schoolteachers, and 124 principals in Jigawa state.The researcher use Research Advisor (2006) to make sample size from the population.

The table 3.1 below represents the population of principals and their respective teachers in various senior secondary schools across the state.

Table 3.1 Table of Population Principal and Teacher with their Gender and Total

	Population	**Sample size**	**Male**	**Female**
Principals	124	108	107	17
Teachers	1,903	322	1,734	169
Total	**2027**	**430**	**1841**	**186**

The population for the study comprised 108 senior secondary schools principals in the state. The teachers were 322 as shown in table 3.1

3.3.1 Population of the study

The population for the study comprised the entire Jigawa state senior secondary school specifically the population comprises of all senior secondary schools (SSS) in nine zones with nine zonal directors of education of the state ministry of education .Therefore the population for this research work constituted of 151 schools of the state ministry of education science and technology Dutse Jigawa, in which of 151 principals and one thousand nine hundred and three (1903) teacher in the senior secondary school under Jigawa state ministry of education science and technology Dutse Jigawa state ,constitute the population of the study.

3.3.2 Sample Size

Due to the vast nature of the target population, it became necessary for theresearcher to use stratified sampling technique to draw the sample out of 124senior secondary principals in Jigawa State. 108 were sampled for the study. Whilefor teachers out of 1903 teachers in Jigawa State 322 were sampled.

3.4 Data Collection Instrument

In order to collect data for the study two (2) sets of questionnaires were the instruments used for the purpose of this study. The first instrument has total number of (43) items andwas

administered to senior secondary school principals in Jigawa State from the 9zones within the state. The questionnaire ascertain the quality and quantity ofresources, section 'C' of the questionnaire contain (14) item which consist of (5)items and contain the extra-curricular activities, section 'E' consisted ofavailability of guidance and counseling services.

The second (2^{nd}) instrument (TQEESE) which means TeachersQuestionnaire on efficiency and effectiveness of senior secondary education.

Section 'A' consisted of the Bio-data or general information of the teacher.Ranging from your present rank, sex, educational qualification, years of teachingexperience, type of school, location of the school and the gender of students. Whilesection 'B' of the questionnaire consisted of the quality and quantity of resources,section 'C' of the questionnaire for teachers consisted of quality of teaching and learning in the school under study. While section 'E' consisted for extra- curricularactivities. The instrument use in quality of teaching and learning were lessonplanning and preparedness of teachers, teachers prompt attendance to lessonapplication of relevant teaching methods, utilization of relevant instructionalresources. Utilization of adequate instructional resources, application of learner-centered approach, classroom management, students participation in the lesson,students interest in the lesson, studentsdo class exercise promptly, students askquestion on the lesson, classroom management teachers methods of evaluating theattainment of lesson objectives while in section 'D' extra- curricular activities. Theinstrument use were sport/games, clubs and societies, excursion, social day andopen days.

3.5 Sampling technique

A stratified random sampling technique was used for this study the researcher considered most appropriate because many had to take into consideration in the sample selection procedure which the composition nature of the population .The researcher used research advisor 2006, and burns and grove (2003) all considered stratified random sampling

technique as the method of ensuring greater degree of representativeness in order to reduce sampling errors . The populations of 124 senior secondary schools were categorized and sample out 108 principals on the other hand 1903 secondary schools teachers in which 322 teachers were selected. All the above school were selected from the nine zones within Jigawa state and all of them where served as WAEC examination centre for both NECO and WAEC Examination. However, Shavelson (1998) argued that large sample size leads to increase precision in estimate to various properties and representativeness of the population and provides better basics for the generalization of the research findings. Therefore the school samples selected were considered appropriate and adequate foe quantity and quality effective and efficiency of the research output. The research instrument were administered on the randomly selected subjects based on the availability of teachers in school at the time of administering of the instruments.

3.5.1 Validation of Data Collection Instrument

The validity and reliability of the instruments were established after observing the necessary due procedures which include the pilot study of this research study followed by details of the processes-were as follows.

3.5.2 Validity of Instrument

The researcher was mindful of observation provided by theprofessional mostly senior teachers and professors in the department of educationBayero University Kano, amongst them was the supervisor of this research work.they determine the appropriateness of the questionnaire which was transform to provide on index of logical validity.

These professionals securitize the instrument and offered valuable suggestion such as elimination of some items in the questionnaire which are incorporated on the final copy of the questionnaire. Based on their suggestions a good number of items were included in the questionnaire and some were added for example the questionnaire initially Yes and NO

question and strongly disagree, disagree, agree and strongly agree. The positive items were maintained at the end while the negative were eliminated from the questionnaire.

3.5.3 Pilot Test:

Pilot study was conducted at two senior secondary school in the state boys and girls respectively. That is Government Day Secondary school Korayal, and Government Girls Computer Secondary School Roni

3.5.4:Reliability of Instrument

The reliability of this study was established after the conduct of a pilot study conducted in two senior secondary school in the state. It was administered in G.D.S.S Korayal and G.G.C.S.S Roni it was administered by the researcher and chi-square statistical method was applied to establish the reliability from the result shown the split half which is appropriate statistical testfor an odd versus even case, has the Spearman-Brown equal-length value of 0.658. Hence the coefficient is very close to one (1) therefore is reliable.

3.6: Procedure for Data Collection

The researcher was personally carried out by the researcher. The researcher had the time to have visited six (6) out of nine (9) education zones. The aim was to see for myself, but due to mechanical problem developed by the researcher's car.This is not withstanding, there is similarity of purpose as the remaining three (3) zones are part and parcel of the same state.

3.7Procedure for data Analysis

The technical use for data analysis was descriptive survey design considering the nature of the instrument and data obtained. The researcher summarized and tabulated data collected from the field of the study on Efficiency and Effectiveness of Senior Secondary Education in Jigawa state from 2009-2013

The frequencies of the respond ants were cross-tabulated and also they were computed in order to test the hypothesis set by the researcher Chi-square test of significant

difference were used to analyzed the data collected and the data was computed using SPSS 18.0 Version statistically package to accept or reject the null hypothesis at 0.05 level of significance.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSES

4.1Introduction

The study made a comprehensive presentation on the datacollected forassessment of the efficiency and effectiveness of senior secondary education in Jigawa State from 2009 - 2013**.** The data was analyzed using cross tabulation, chi-square statistics descriptive and inferential statistics. This was with view to answer the research questions and test the five (5)corresponding hypothesis to research questions.

4.2Data Presentation and Analyses

This section presents the analysis of the data obtained beginning with the research questions and then the hypothesis.

4.3 Analysis of Research Questions (brief introduction) Research Question One

The following present data collected to answer the above research questions.

What is the quantity of input supplied to senior secondary school education in Jigawa State from 2009–2013?

In order to answer this research questions, the frequency of responses from the questionnaire on principals and teachers were obtained tabulated and presented below through section A,B,C,D and E corresponding to quality and quantity of resources, quality of teaching and learning,extra-curricular activities, availability of guidance and counseling services. Details on these analyses are presented in the corresponding tables4.1a below:

Table 4.1aFrequencies of Subjects responses on Quantity of resources supplied to Senior Secondary School in Jigawa State (principals' responses)

S/N	Variable	Frequencies of Principals Quantity of Resources							
		Inadequate		**Normal**		**Adequate**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Teachers Quantity**	**15**	**13.9**	**65**	**60.2**	**28**	**25.9**	**108**	**100**
2.	**Non-teaching staff quantity**	**32**	**29.6**	**65**	**60.2**	**11**	**10.2**	**108**	**100**
3.	**Instructional materials quantity**	**17**	**15.7**	**67**	**62**	**24**	**22.2**	**108**	**100**
4.	**Infrastructural facilities quantity**	**24**	**22.2**	**66**	**61.1**	**18**	**16.7**	**108**	**100**
5.	**Laboratory equipments quantity**	**31**	**28.7**	**58**	**53.7**	**19**	**17.6**	**108**	**100**

Table 4.1a shows the response of 108 principals in Jigawa State senior secondary schools on quantity and quality of available resources within the schools.

13.9% (N=15) of the participating principals revealed that the quantity of the available teachers are inadequate when 25.9% (N=28) of the participants indicated that the quantity of the available teachers are 60.2% (N=65) of the participant indicated that the quantity of teachers are normal.

The quantity of non-teaching staff were considered inadequate by 29.6% (N=32)

respondents, while 60.2% (N=65) of the respondents considered the nonteaching staff quantity normal and 10.2% (N=l1) of the respondents indicated adequacy in the quantity of non-teaching staff within the system. Quantity of available instructional materials within the schools were considered adequate by 22.2% (N=24) of the respondent while 62% (N=17) of the respondents while 15.7 (N=17) of the respondents indicated inadequacy in the quantity of the available instructional materials. 22.2% (N=24) view the quantity of infrastructural facilities enjoyed by the schools to be inadequate, while 16.7% (N=18) reported that the facilities enjoyed are normal and 61.1% (N=66) of the respondents considered the facilities normal.

28.7% (N=3l) of the participating principals indicated that the quantity oflaboratory equipments in the schools were inadequate, 5.7% (N=58) of the participants considered it normal and 17.6% (N=19) of the participants.

The perception of 70.4% (N=76) of the respondents, is that the quality of teachers in the senior secondary school is normal for effective teaching and learning. 61.1% (N=66) of the respondents perceived that the quality of the available teachers is normal while 28.7% of the respondents have contrary perception. It was indicated by 27.8% (N=30) of the respondents that quality of non-teaching staff in the senior secondary schools are inadequate. 6.9% of the respondents reported that the quality of the non-teaching staff is normaland 8.% (N=9) of the respondents agreed that the quality of non-teaching staff is adequate.

Quality of instructional materials in the schools is considered adequate by 19.4% (N=21) of the selected samples while 16.2% (N=21) of the samples indicated negative perception of the quality and 6.9% (N=69) regarded the quality of instructional materials to be normal. Available infrastructural facilities are considered to be adequate in quality by 8.9% (N=42) of the respondents, 14.8% (N = 1 6) respondents considered it inadequate and 46.% (N=50) respondents reported normal in the quality of the facilities. Quality of

laboratory equipments is indicated to be inadequate by 16.7% (N=18) of the selected samples, while 5.4% of the samples indicated that the quality of laboratory equipments is adequate and 50.9% of the samples perceived laboratory equipments' quality to be normal.

Table 4.2a This table displays the various frequencies of the subject responses which particularly focused on teachers welfare is inadequate while majority responded to normal 38.5% which is below the expectations still need improvement from table above one can see in the instructional materials both quality and quantity on teachers responses 19.3% responded inadequate. This table consists of 8 items four (4) for quantity and four (4) for quality. About 22% of the responses among the non-teaching staff responded negatively towards the level of their welfare which is equivalent to 72 of non-teaching staffs in number.

Table 4.1bFrequencies of Subjects responses on Quantity of responses

Supplied to Senior Secondary school in Jigawa State (Teachers responses)

S/NO	Variable	Frequency of Teachers Quantity ofResources							
		Inadequate		**Normal**		**Adequate**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Non-teaching staff quantity**	**72**	**22.4**	**171**	**53.1**	**79**	**24.5**	**322**	**100**
2.	**Instructional materials quantity**	**63**	**19.6**	**196**	**60.9**	**63**	**19.6**	**322**	**100**
3.	**Infrastructural facilities quantity**	**81**	**25.2**	**181**	**56.2**	**60**	**18.6**	**322**	**100**
4.	Laboratory equipment quantity	89	27.6	173	53.7	60	18.6	322	100

The table 4.1b above shows the respondents' reports on the quantity and quality of the resources within the secondary schools. The table shows that 24.5% of the respondents considered the quantity of the non-teaching staff adequate while 22.4% (N=72) of the respondents viewed the available non-teaching staff inadequate and 53.1% which is equivalent to 171 respondents considered the number of non-teaching staff normal. Instructional materials were considered to be normal in quantity by 60.9% of the respondents. Then 19.6% of the respondent reacted positively towards the adequacy of the quantity of instructional materials while equivalent proportion of the respondents (that is 96.6%) responded negatively towards the adequacy of the instructional materials at their disposal.

The quantity of availability of laboratory equipments is considered to be inadequate by the 27.6% (N=89) of the participating teachers, then 53.7% (N=173) of the participants agreed that the laboratory equipments available are normal, and 18.6% (N=60) of the respondents support the adequacy of the available quantity laboratory equipments in the schools.

56.2% (N=81) of the respondents reported normal of the quantity of infrastructural facilities enjoyed in the schools and 18.6% (N=60) of the respondents considered such facilities to be adequate in quantity while 25.2% of the respondents inversely responded to the quantity of the infrastructural facilities enjoyed by the schools.

The teachers' welfare package was perceived to be inadequate by sample of 124 respondents (38.5), when 48.8% (N=57) of the respondents believe that the teachers' welfare package is normal and 12.7% (N=41) of the participants agreed that they enjoyed adequate welfare package.

4.3.1 Research Question Two

What is the quality of resources supplied to senior secondary education in Jigawa state from 2009 to 2013?

In order to answer this research question Principal and teacher responses were tabulated below:

Table 4.2a Frequencies of Subjects responses on Qualities of resourcessupplied to Senior Secondary School in Jigawa State (Principals responses)

S/N	Variable	Frequencies of Principals Quality of Resources							
		Inadequate		**Normal**		**Adequate**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Teachers quality**	**9**	**8.3**	**76**	**70.4**	**23**	**21.3**	**108**	**100**
2.	**Non-teaching staff quality**	**30**	**27.8**	**69**	**63.9**	**9**	**8.3**	**108**	**100**
3.	**Instructional materials quality**	**18**	**16.7**	**69**	**63.9**	**21**	**19.4**	**108**	**100**
4.	**Infrastructural facilities quality**	**16**	**14.8**	**50**	**46.3**	**42**	**38.9**	**108**	**100**
5.	**Laboratory equipment quality**	**18**	**16.7**	**55**	**50.9**	**35**	**35.4**	**108**	**100**

The Table 4.2.a shows the reports of principals' responses on the quality of teaching and learning in secondary schools.

The data collected shows that only 3.7% of the respondents agreed that the school lesson planning and preparedness of teachers are adequate enough to give qualitative teaching and learning.

Only 3.7% (N=4) of the respondents reported that there is adequate attendance of the teachers to their lesson, then 59.3% (N=64) of the respondents considered the teachers attendance to lesson normal and 37% (N=40) of the participants considered teachers attendance to lesson inadequate.

Application of relevance teaching method is considered inadequate by 31.5% (N=34) of the respondents, 57.4% (N=62) of the respondents considered it normal, while 31.5% (N=34) of the participants' response gives account of inadequacy of application of relevance teaching method.'

Utilization of relevant instructional resources is considered adequate to provide qualitative teaching and learning by 13.7% (N=15) normal by 63% (N=68) of the respondents while 23.1% (N=25) of the respondents give inverse reports as regards utilization of the relevant instructional resources 23.1% (N=25) of the participants' view is that there is no adequate utilization of instructional resources, while 12% (N=13) of the participants agreed that instructional resources are adequately utilized and 64.8% (N=70) considered it normal.

Learners centered approach was reported to be adequately applied by 16.7% (N=18) respondents, 63% (N=68) respondents considered it normal, while 20.4% (N=22) of the respondents considered the application of learners centered approach inadequate.

37% (N=40) of the participating principles viewed the classroom management among the teachers inadequate, 53.7% (N=58) participants viewed it normal and 9.3% (N=10) of the

samples shows there is adequate classroom management among the teachers in the secondary schools.

Students participation in the lesson is considered inadequate by 30.6% (N=33) participants, normal by 60.2% (N=62) participants and adequate by 9.3% (N=10) of the participating principals.

From the data collected, it was indicated that 34.3% (N=37) of the respondents perceived students' interest towards the lesson inadequate, 61.1% (N=66) of the respondents perceived it normal and 4.6% (N=5) of the respondents indicated that students' interest in the lesson was adequate for the effective learning.

7.4% of the respondents reported that students adequately do their class exercise and 67.6 (N=73) of the respondents indicated that the students attitude towards their class exercise is normal while 25% (N=27) of the respondents reported inadequacy in the students attitude to do their class exercise.

The students' attitude toward asking questions during the lesson was reported not adequate by 29.6% (N=32) of the respondents, 61.1% (N=66) of the respondents considered it normal while 9.3% (N=10) of the respondent agreed that the students attitude of asking questions during lesson was adequate.

53.7% (N=58) of the participants indicated that asking of relevant questions from the students by the teachers was normal. 10.2% (N=11) of the participating principals, agreed that the relevant questions asked by the teachers were adequately enough for qualitative teaching and learning activities while 36.1% (N=39) of the participants considered the relevant questions asked by the teachers inadequate.

Table 4.2bFrequencies of Subjects responses on Quality of resources supplied to Senior Secondary School in Jigawa State (Teachers responses)

S/N	Variable	Frequencies of Teachers Quality of Resources							
		Inadequate		**Normal**		**Adequate**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Teachers welfare**	**124**	**38.5**	**157**	**48.8**	**41**	**12.7**	**322**	**100**
2.	**Instructional materials quality**	**62**	**19.3**	**199**	**61.8**	**61**	**18.9**	**322**	**100**
3.	**Infrastructural facilities quality**	**96**	**29.8**	**186**	**57.8**	**40**	**12.4**	**322**	**100**
4.	**Laboratory equipment quality**	**109**	**33.9**	**170**	**52.8**	**43**	**13.4**	**322**	**100**

In terms of the quality of available instructional materials in the schools, 61.8% of the sampled teachers perceived the quality to be normal 18.8% (N=61) perceived it adequate while 19.3% (N= 62) of the respondents indicated negative response towards the quality of instructional materials available in the schools.

The quality of infrastructural facilities enjoyed by the teachers are considered to be adequate by 12.4% (N=40) of the respondents, normal by 57.8% (N=186) of the respondents and perceived to be inadequate by 29.8% (N=96) of the respondents.

33.9% (N=109) of the respondents regarded the available laboratory equipments to be inadequate in quality, while only 13.4% (N=43) of the participating teachers considered the quality to be adequate and 52.8% (N=170) perceived the quality of laboratory equipments to be normal.

4.3.2 Research Question Three:

What is the quality of teaching and learning in school under study from 2009 - 2013?

The research question was answered from the responses to section C of the questionnaire. It consist of twelve (12) items for both the principal questionnaire (PQEESE) and the teachers (TQEESE) responses were tabulated and presented in the table below:

Table 4.2.3a Frequencies of Subjects responses on Quality of Teaching and learning to Senior Secondary School in Jigawa State (Principals responses)

S/N	Variable	Frequencies on Quality of Teaching and learning							
		Ineffective		**Average**		**Effective**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Lesson planning & preparedness of teachers**	**42**	**38.9**	**62**	**57.4**	**4**	**3.7**	**108**	**100**
2.	**Teachers prompt attendance to lesson**	**40**	**37.0**	**64**	**59.3**	**4**	**3.7**	**108**	**100**
3.	**Application of relevant teaching method**	**34**	**31.5**	**62**	**57.4**	**12**	**11.1**	**108**	**100**
4.	**Utilization of relevant instructional resources**	**25**	**33.1**	**68**	**63**	**15**	**13.7**	**108**	**100**
5.	**Utilization of adequate instructional resources**	**25**	**32.1**	**70**	**64.8**	**13**	**12.0**	**108**	**100**
6.	**Application of learner-centred approach**	**22**	**20.4**	**68**	**63**	**18**	**16.7**	**108**	**100**
7.	**Classroom management**	**40**	**37.0**	**58**	**53.7**	**10**	**9.3**	**108**	**100**
8.	**Students participation in the lesson**	**33**	**30.6**	**65**	**60.2**	**10**	**9.3**	**108**	**100**
9.	**Students interest in the lesson**	**37**	**34.3**	**66**	**61.1**	**5**	**4.6**	**108**	**100**
10.	**Students do class exercise promptly**	**27**	**25.0**	**73**	**67.6**	**8**	**7.4**	**108**	**100**
11.	**Students ask questions in the lessons**	**32**	**29.6**	**66**	**61.1**	**10**	**9.3**	**108**	**100**
12.	**Teachers ask relevant question**	**39**	**36.1**	**58**	**53.7**	**11**	**10.2**	**108**	**100**

The Table 4.2.3a shows the reports of principals' responses on the quality of teaching and learning in secondary schools.

The data collected shows that only 3.7% of the respondents agreed that the school lesson planning and preparedness of teachers are adequate enough to give qualitative teaching and learning.

Only 3.7% (N=4) of the respondents reported that there is adequate attendance of the teachers to their lesson, then 59.3% (N=64) of the respondents considered the teachers attendance to lesson normal and 37% (N=40) of the participants considered teachers attendance to lesson inadequate.

Application of relevance teaching method is considered inadequate by 31.5% (N=34) of the respondents, 57.4% (N=62) of the respondents considered it normal, while 31.5% (N=34) of the participants' response gives account of inadequacy of application of relevance teaching method.'

Utilization of relevant instructional resources is considered adequate to provide qualitative teaching and learning by 13.7% (N=15) normal by 63% (N=68) of the respondents while 23.1% (N=25) of the respondents give inverse reports as regards utilization of the relevant instructional resources 23.1% (N=25) of the participants' view is that there is no adequate utilization of instructional resources, while 12% (N=13) of the participants agreed that instructional resources are adequately utilized and 64.8% (N=70) considered it normal.

Learners centered approach was reported to be adequately applied by 16.7% (N=18) respondents, 63% (N=68) respondents considered it normal, while 20.4% (N=22) of the respondents considered the application of learners centered approach inadequate.

37% (N=40) of the participating principles viewed the classroom management among the teachers inadequate, 53.7% (N=58) participants viewed it normal and 9.3% (N=10) of the

samples shows there is adequate classroom management among the teachers in the secondary schools.

Students participation in the lesson is considered inadequate by 30.6% (N=33) participants, normal by 60.2% (N=62) participants and adequate by 9.3% (N=10) of the participating principals.

From the data collected, it was indicated that 34.3% (N=37) of the respondents perceived students' interest towards the lesson inadequate, 61.1% (N=66) of the respondents perceived it normal and 4.6% (N=5) of the respondents indicated that students' interest in the lesson was adequate for the effective learning.

7.4% of the respondents reported that students adequately do their class exercise and 67.6 (N=73) of the respondents indicated that the students attitude towards their class exercise is normal while 25% (N=27) of the respondents reported inadequacy in the students attitude to do their class exercise.

The students' attitude toward asking questions during the lesson was reported not adequate by 29.6% (N=32) of the respondents, 61.1% (N=66) of the respondents considered it normal while 9.3% (N10) of the respondent agreed that the students attitude of asking questions during lesson was adequate.

53.7% (N=58) of the participants indicated that asking of relevant questions from the students by the teachers was normal. 10.2% (N=11) of the participating principals, agreed that the relevant questions asked by the teachers were adequately enough for qualitative teaching and learning activities while 36.1% (N=39) of the participants considered the relevant questions asked by the teachers inadequate.

Table 4.2.3b Frequencies of responses on Quality of Teaching and learning to Senior Secondary School in Jigawa State (Teachers responses)

S/No.	Variable	Frequencies onQuality of Teaching and learning							
		Ineffective		**Average**		**Effective**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Lesson planning & preparedness of teachers**	**13**	**4.0**	**176**	**54.7**	**133**	**41.3**	**322**	**100**
2.	**Teachers prompt attendance to lesson**	**18**	**5.6**	**171**	**53.1**	**133**	**41.3**	**322**	**100**
3.	**Application of relevant teaching method**	**28**	**8.7**	**194**	**60.2**	**100**	**31.1**	**322**	**100**
4.	**Utilization of relevant instructional resources**	**47**	**14.6**	**198**	**61.5**	**77**	**23.9**	**322**	**100**
5.	**Utilization of adequate instructional resources**	**44**	**13.7**	**212**	**65.8**	**66**	**20.5**	**322**	**100**
6.	**Application of learner-centred approach**	**56**	**17.4**	**175**	**54.3**	**91**	**28.3**	**322**	**100**
7.	**Classroom management**	**43**	**13.4**	**166**	**51.6**	**113**	**35.1**	**322**	**100**
8.	**Students participation in the lesson**	**53**	**16.5**	**163**	**50.6**	**106**	**32.9**	**322**	**100**
9.	**Students interest in the lesson**	**54**	**16.8**	**162**	**50.3**	**106**	**32.9**	**322**	**100**
10.	**Students do class exercise promptly**	**61**	**18.9**	**172**	**53.4**	**89**	**27.6**	**322**	**100**
11.	**Students ask questions in the lessons**	**66**	**20.5**	**172**	**53.4**	**84**	**26.1**	**322**	**100**
12.	**Teachers ask relevant question**	**34**	**10.6**	**170**	**52.8**	**118**	**36.6**	**322**	**100**

The table 4.2.3b above displays the teachers' responses on the quality of teaching and learning in senior secondary schools in Jigawa State.

Out of the total number of 322 participants, 41.3% of the respondents supported that the teachers are adequately prepared for their lesson with adequate lesson plan. 54.7% of the respondents regarded the lesson planning and preparedness of teachers before the lesson to be normal while 4% of the respondents have contrary opinion by concluding that lesson planning and preparedness of teachers were inadequate. Punctuality of the teachers to the lesson was reported inadequate by 5.6% (N=18) of the respondents, 41.3% (N=133) of the respondents considered it adequate while 53.1% (N=171) agreed that teachers' Attendance to the lesson was normal.

Applications of relevance teaching techniques was reported to be inadequate by 8.7% (N=28) of the respondents, 60.2% (N=194) of the respondents considered it normal and 31.1% (N=100) of the participated teachers supported that the applications of relevant teaching method was adequate.

The percentage of the teachers who perceived that utilization of relevant instructional resources were normal were 61.5% (N=198), 23.9% (N=77) of the participants perceived the utilization of relevant instructional resources in the secondary schools to be adequate and contrarily 14.6% (N=47) of the participating teachers reported inadequacy in the utilization of relevant instructional resources for the attainment of qualitative teaching and learning. 13.7% (N=44) of the respondents indicated that instructional resources are not adequately utilized. 65.8% (N=212) of the respondents agreed that available instructional resources are normally utilized, and 20.5% of the respondents supported that the available instructional resources were adequately utilized.

Application of learners centered approach was agreed to be adequate by 28.3% (N=91) of the respondents while 17.4% (N=56) of the respondents were inversely responded

to the assertion that learners centered approach was applied to attain teaching and learning quality in the senior secondary school and 54.3% of the respondents considered the application of learners entered approach to be normal.

13.4% (N=43) indicated that classroom management among teachers were inadequate, while 35.1% of the respondents considered it adequate and 51.6% (N=166) of the participants reported that it was normal. Also, students participation in the class activities was considered normal by 50.6% (N=163) of the participated teachers, adequate by 32.9% and inadequate by 16.5% (N=53) of the respondents.

16.8% (N=54) of the respondents agreed that students interest in the lesson was not adequate while 32.9% (N=106) of the respondents considered students interest in the lesson adequate and it was considered normal by 50.3% (N=162) of the participants.

53.4% of the respondents indicated that students do their exercise normally, 27.6% (N=89) of the respondents agreed that students adequately do their class exercise while 18.9% of the respondents indicated that students did not do their class exercise adequately.

The students were reported to ask inadequate questions in the lesson by 20.5% (N=66) of the participants, while 26.1% (N=84) of the participating teachers agreed that the students ask adequate questions during the lessons and 53.4% (N=172) of the participants indicated that level of asking questions among the students during the lesson was normal.

It was indicated by 10.6% (N=34) of the respondents that teaches asked inadequate relevant questions from the students, 52.8% (N=170) of the respondents supported that teachers ask normal relevant questions and 36.6% (N=118) of the respondents reported that the teachers ask adequate relevant questions from the students.

4.3.3 Research Question Four:

What is the extent of extra-curricular activities senior secondary school within Jigawa state from 2009 -2013?

The research question was answered and the responses of both the principals (PQEESE) and the teachers (TQEESEE) questionnaires were tabulated and the frequencies of responses presented below:

Table 4.3.1aFrequencies of Subjects responses to extracurricular activities in Senior Secondary School in Jigawa State (Principals responses)

S/N	Variable	Frequency of extracurricular activities							
		Infrequently		**Normal**		**Frequently**		**Total**	
		Count	**%**	**Count**	**%**	**Coun t**	**%**	**Count**	**%**
1.	**Sports/Games**	**17**	**15.7**	**64**	**59.3**	**27.**	**25.0**	**108**	**100**
2.	**Clubs & Societies**	**23**	**21.3**	**47**	**43.5**	**38**	**35.2**	**108**	**100**
3.	**Excursions**	**12**	**11.1**	**45**	**41.7**	**51**	**47.2**	**108**	**100**
4.	**Social activities**	**13**	**12.0**	**48**	**44.4**	**47**	**43.5**	**108**	**100**
5.	**Open days**	**11**	**10.2**	**57**	**52.8**	**40**	**37.0**	**108**	**100**

Table 4.3.1a shows the responses of principals in senior secondary schools in Jigawa State on extra-curricular activities among the students. 15.7% (N=17) of the selected samples considered sports/games activities among the students inadequate, 59.3% (N=64) of the sample considered it normal while 25% ((N=27) of the samples selected viewed the sports/game activities adequate among the senior secondary schools. In a similar vein, majority of the respondents accounted for 43.5%% ((N=47) stated that clubs and societies in the senior secondary schools are normal functioning and 35.2% (N=38) agreed that the activities were functioning adequately while 21.3% (N=23) of the respondents contradicted the views.

Excursion program was reported inadequate in the schools by 11.1% of the selected principals for this research while 47.2% (N=51) of the samples indicated that adequate excursion program was carried out in the schools and 41.7% (N=45) of the participants regarded the programmes activities normal.

Social activities was reported to be adequate by 43.5% (N=47) of the respondents. The social activities in the schools was considered normal by 44.4% (N=48) of the respondents and 12% (N=13) considered it inadequate in the schools. Also, 10.2% of the participating principals indicated inadequacy of open 52.8% considered it normal and 37% of the respondents reported that there is adequacy in the open days in the senior secondary schools.

Table 4.3.1bFrequencies of Subjects responses to extracurricular activities in Senior Secondary School within Jigawa State (Teachers responses)

S/No.	Variable	Frequency of extracurricular activities							
		Infrequently		**Normal**		**Frequently**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**	**Count**	**%**
1.	**Sports/Games**	**84**	**26.1**	**168**	**52.2**	**70**	**21.7**	**322**	**100**
2.	**Clubs & Societies**	**94**	**29.2**	**174**	**54.0**	**54**	**16.8**	**322**	**100**
3.	**Excursions**	**152**	**47.2**	**129**	**40.1**	**41**	**12.7**	**322**	**100**
4.	**Social activities**	**122**	**37.9**	**159**	**49.4**	**41**	**12.7**	**322**	**100**
5.	**Open days**	**141**	**43.8**	**149**	**46.3**	**32**	**9.9**	**322**	**100**

Table 4.3.1b displays the data collected from senior secondary school teachers in Jigawa State in regarding to extra-curricular activities within the schools. Sports/games activities were said to be adequately participated in by 21.7% (N=70) of the selected samples among the teachers. 52.2% (N=168) of the respondents indicated that such activities were normal and 26.1% (N=84) of the respondents considered the sports/games activities inadequate.

Clubs and societies activities are considered to be functioning adequately in the schools by 16.8% of the respondents, 54% respondents considered it normal while 29.2% (N=94) of the respondents considered it inadequate. 47.2% (N=152) of the respondents reported that the students are no adequately participating in excursions activities, while 12.7% of the participants agreed that there is adequate excursions activities within the state

secondary schools, and 40.1% (N=129) of the respondents reported normal excursions activities in the secondary schools.

49.4% (N=159) of the participating teachers regarded social activities in the secondary schools to be normal and 21.7% (N=41) of the teachers agreed that it was adequate, but 37.9% (N=122) negate such assertion. Also, 43.8% (N=141) of the respondents were contrary to adequacy of the open days in the secondary schools while 9.9% (N=32) of the respondents agreed that open days in the schools are adequate and 46.3% of the participants considered it normal.

4.3.4 Research Question Five:

What is the Availability of guidance and counseling services to senior secondary education in Jigawa state from 2009 -2013?

In order to answer this question the responses of principals and teachers were tabulated below:

Table 4.3.2aFrequencies of Subjects responses to Availability of Guidance and Counseling in Senior Secondary School within Jigawa State (Principals responses)

S/N	Variable	Principal Availability of Guidance and Counseling					
		Available		**Unavailable**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**
1.	**Career counseling**	**75**	**69.4**	**33**	**30.6**	**108**	**100**
2.	**Educational counseling**	**69**	**63.8**	**39**	**36.1**	**108**	**100**
3.	**Information service**	**51**	**47.2**	**57**	**52.8**	**108**	**100**
4.	**Appraisal service**	**47**	**43.5**	**61**	**56.5**	**108**	**100**
5.	**Vocational guidance**	**38**	**35.2**	**70**	**64.8**	**108**	**100**
6.	**Orientation service**	**53**	**49.1**	**55**	**50.9**	**108**	**100**
7.	**Referral service**	**42**	**38.9**	**66**	**61.1**	**108**	**100**
8.	**Placement service**	**41**	**38.0**	**67**	**62.0**	**108**	**100**
9.	**Follow-up service**	**54**	**50.0**	**54**	**50.0**	**108**	**100**
10.	**Family counseling**	**37**	**34.3**	**71**	**65.7**	**108**	**100**
11.	**Crisis counseling**	**44**	**40.7**	**64**	**59.3**	**108**	**100**

Table 4.3.2a reveals the responses of selected samples of 108 principals in Jigawa State secondary school regarding the availability of guidance and counseling services in the schools.

Out of the total samples, 69.4% of the respondents agreed that career counseling was available in their school while 30.6% of the respondents said that it was not available in their schools. In the same trend, 63.9% (N=69) of the selected samples reported availability of educational counseling in their schools while 36.1% (N=39) of the selected samples negate

the availability of educational counseling in their schools.

Information service was reported to be available in schools by 47.2% (N=51) of the respondents disagreed with the availability of information service in the secondary schools. 61 respondents that is; 56.5% of the total participants indicated, that there is no appraisal service in that appraisal service was available in their schools.

Larger proportion of the samples (64.8%) negatively responded towards the availability ofvocational guidance while 35.2% of the respondents agreed that vocational guidance wasavailable. 49.1% (N=53) of the participating principals indicated that they conductedorientation services in their schools, while 50.9% of the respondents indicated that such wasnot available in their schools. 38.9% (N=42) agreed that referral services were availablewhile 61.1% (N=66) disagreed with availability of referral services in their schools.

Only 38% (N=41) of the respondents engaged in placement service while such service was not available from the reports of 67 respondents (62%) 50 (N=54) of the selected samplesagreed that follow up service was available in their schools while the same proportion indicated, that such service was not available in their schools.

65.7% (N=71) of the respondents indicated that family counseling was unavailable in their schools while 34.3% (N=37) indicated that family counseling was available in their schools. Crises counseling was reported available by 40.7% (N=44) of the selected principals while 59.3% (N=64) of the principals indicated that crises counseling was not available in their schools.

Table 4.3.2bFrequencies of Subjects responses to Availability of Guidance and Counseling in Senior Secondary School within Jigawa State

(Teachers responses)

S/No.	Variable	Frequencies of Availability of Guidance and Counseling					
		Available		**Unavailable**		**Total**	
		Count	**%**	**Count**	**%**	**Count**	**%**
1.	**Career counseling**	**111**	**34.5**	**211**	**65.5**	**322**	**100**
2.	**Educational counseling**	**81**	**27.0**	**235**	**73.0**	**322**	**100**
3.	**Information service**	**146**	**45.3**	**176**	**54.7**	**322**	**100**
4.	**Appraisal service**	**165**	**51.2**	**157**	**48.8**	**322**	**100**
5.	**Vocational guidance**	**153**	**47.5**	**169**	**52.5**	**322**	**100**
6.	**Orientation service**	**144**	**44.7**	**178**	**55.3**	**322**	**100**
7.	**Referral service**	**174**	**54.0**	**148**	**46.0**	**322**	**100**
8.	**Placement service**	**155**	**48.1**	**167**	**51.9**	**322**	**100**
9.	**Follow-up service**	**170**	**52.8**	**152**	**47.2**	**322**	**100**
10.	**Family counseling**	**175**	**54.3**	**147**	**45.7**	**322**	**100**
11.	**Crisis counseling**	**175**	**54.3**	**147**	**45.7**	**322**	**100**

Table 4.4.1b shows the responses of teachers in selected secondary schools in Jigawa State on the availability of guidance and counseling services in the schools.

Outof the total samples of 322 teachers in the secondary schools, 211 participants (65.5%) indicated that career counseling are not available while 111 participants (34.5%)

indicated that career counseling were available in their schools. Also 27% of the respondents agreed that educational counseling was functioning in their schools while 73% (N=235) of the respondents indicated that such did not exist in their schools.

Availability of information service was positively responded to by 45.3% (N=146) of the samples selected while 54.7% (N=176) reveals that information service was not available in their schools. 51.2% (N=165) of the participants reported that there was appraisal service in their schools while 48.8% (N=157) of the respondents reported that appraisal service was not available in their schools. Vocation guidance, according to 52.5% (N=169) of the participating teachers was unavailable and 47.5% (N=153) of the participants reported that vocational guidance was available in their schools.

53.3% (N= 178) of the selected samples reveals that their schools do not render orientation services while 44.7% (N=144) respondents conducted orientation services in their schools. Referral services, according to 54% (N=l 74) of the participating teacher were available while 46% (N=148) of the participants reported that such services were not available in their schools.

Availability of placement service in the secondary schools was witnessed by 155 respondents (48.1%) while 167 respondents (61.9%) reported that placement service was not available in their various schools. 52.8% (N=170) of the respondents reported that follow-up service was available in their schools while 47.2% (N=152) of the participants gave negative response to such service. Family counseling and crises counseling were indicated to be available in the senior secondary schools by 54.3% (N=175) of the respondents, while 45% (N=147) of the respondents reported inversely to the availability of both family counseling and crises counseling.

4.3.5 Research Question Six

What is the quality of educational output in senior secondary education in Jigawa state from 2009-2013?

In order to answer this question the following WAEC result of student were presented below:

Table 4.4 Jigawa state education resources department (JERD)

Performance result analysis in SSCE for WEAC and NECO examinations, from 2009 to 2013

S/NO		NO. OF CANDIDATE	SSCE WAEC RESULT			
			5 CREDIT & ABOVE	%	5CREDIT &ABOVE INCLUDING ENG.& MATHS	%
1	2009	13447	1579	11.7%	108	0.8%
2	2010	11336	3234	2.8%	278	2.3%
3	2011	15552	4304	28.6%	1562	10.4%
4	2012	17339	3570	22.1%	1954	12.1%
5	2013	19423	2741	14.1%	2020	21%

From theTable 4.4 above shows that the performance of senior secondary education in Jigawa state had increased from 2009 to 2014 with exception of year 2010.

Table 4.5 Principals and Teachers Years of Experience

FOR HOW LONG HAVE BEEN IN POSITION					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 YEARS	286	66.5	66.5	66.5
	6-10 YEARS	81	18.8	18.8	85.3
	10 AND ABOVE YEARS	63	14.7	14.7	100.0
	Total	430	100.0	100.0	

From the table 4.5 it had shown that 66.5% of both the teachers and principals were found to be the majority of the population with less experience of 1-5 years , followed by 18.8% 6-10 years experience.But this has an implication on students performance .only 14.7% are experienced with 10 years and above.

4.3.6 Research question Seven

What is the quantity of education output in senior secondary education from 2009 - 2013?

In order to answer this question the table below gives us a clear view on highest qualification of teachers in senior secondary education from 2009-2013

Table 4.4: Number of teachers by highest level of education attained (public school only)

	Senior secondary school		Total	Percentages
	Urban	Rural		%
Below SSCE/WAEC	0	0	0	0
OND/Diploma	0	0	0	0
NCE	343	198	541	24.50
Degree/HND/Graduate	1088	489	1577	71.42
MSC./M.ED/M.A/PhD	46	35	81	3.67
TOTAL	1477	722	2208	100

As pointed out by national policy on education 2004 and Obanya(2006) contended that

the minimum qualification to teach shall be NCE.71.42% of Jigawa state teacher are Degree/HND/B.Ed etc.while 24.50% were NCE holders.Only 3.67% were Msc/M.Ed/PhD.

Research Hypothesis

The tables in appendixI - XXXIII shows that the cross-tabulation with observed and Expected frequencies of both principals and teachers opinion on Quality of resources, Quantity of resources, Quality of teaching and learning in the school, Extracurricular activities ,Availability of Guidance and counseling services.

The Chi-Square test at 95% confidence interval proved that there is NOsignificant difference in opinion between principals and teachers in Infrastructural facilities ,Laboratory equipment, Lesson planning and preparedness of teachers, Application of relevant teaching method, Utilization of relevant instructional resources, Application of learners approach ,Students participation in the lessons , Classroom management ,Sports/Games, Excursion, Social activities, open days, Career counseling , Educational counseling, Appraisal services, orientation services, Crises counseling.

It was observed that generally Expected frequencies of principals' responses were higher than the Observed frequencies among those that responded to normal, average, or normal. Also observed frequencies were higher than the Expected frequencies among principals.

Meanwhile, generally the Observed frequencies of teachers that responded to inadequate, low, or ineffective were lower than the Expected. The observed frequencies for those teachers that responded to average, normal, or normal were higher than the Expected frequencies respectively

Similarly, the Chi-square test at 95% confidence interval shows that there is significant difference in opinion between principals and teachers in some parameters/variables like

Quantity of resources in Instructional material, Quality of resources in infrastructural facilities, Quality of resources and Laboratory equipments, Teachers prompt attendance to lesson, Utilization of adequate instructional resources, Students participation in the lesson ,Students interest in the lessons, Students do class exercise promptly, Students ask questions in the lesson, teachers ask relevant questions, Clubs and Societies, Information services, placement services, Placement services, Follow-up, services ,Family counseling.

The tables in the appendix shows that the Expected frequencies of principals responses were higher than the Observed frequencies among those principals that responded to inadequate, low, or ineffective but generally those principals that responded to normal, normal or average had Observed frequencies were higher than Expected frequencies, in contrast to the teachers whose responses on inadequate, low or ineffective had Observed frequencies higher than Expected frequencies.

Moreover, those teachers that responded to normal, normal, or average had Expected frequencies higher than Observed frequencies.

4.4 Summary of Major Findings

The summery of the findings were as follows:

1. The quantity of resources supplied to senior secondary education in Jigawa state from 2009-2013 were normal
2. the quality of resources supplied to senior secondary education in Jigawa state from 2009-2013 were normal
3. The quality of teaching and learning in Jigawa state senior secondary education from 2009-2013 were effective.
4. The extend of Extracurricular activities in senior secondary education were regular
5. The Availability of Guidance and Counseling services in senior secondary education in Jigawa state from 2009-2013 were unsatisfactory

6. The quality of educational output in senior secondary education in Jigawa state from 2009-2013 was normal
7. The quantity of educational output in senior secondary education in Jigawa state from 2009-2013 was normal

4.5Discussion of the Findings

From the analysis of the items on the research question have shown clearly the state of efficiency and effectiveness of senior secondary education in Jigawa State from 2009 - 2013. In terms of instructional materials, teaching and learning were normal based on their response which is below expectations. Lesson planning and preparedness of teachers, teachers prompt attendance to lesson, application of relevance teaching method, utilization of relevant instructional resources, application of learners centered approach students participations in the lessons, student interest in the lessons, students do class exercise promptly, students ask questions in the lesson. And teachers ask relevant questions. The analysis of the principal responses shows that majority of their responses were normal while lesson planning, preparedness of teachers, teachers prompts attendance to lesson, students interest in the lesson were below expectation with only 3.7, 3.7 and 4% attainment to adequacy.

Teaching and learning the teachers' responses was normal. Similarly the responses of the principals in extra-curricular activities from the table in the appendix the teachers responses on sport learners clubs and society they responded greater than 50% normal, while social activities, excursion and open day responded more to inadequate.

Availability of guidance and counseling when you look at the table in the appendix, it shows that career counseling, educational counseling, information service, vocational, guidance, orientation services, placement service are more than 50% responses to

unavailable while appraisal service, follow up service, family counseling, crises counseling all focuses on the availability.

In line with the above, Akpa(2003) noted the persistent in availability of essential learning facilities in Nigerian school.

Bello, (2009); Adeniyi (2013) and Adenipekun (2013) also observed that teaching and learning were both made more effective and quantitative if the overall school environment were improved.

The finding support the work of Udom (2006) clearly pointed out that infrastructural facilities are very important to students learning needs and greatly influence their performance. Therefore the chi-square test at 95% confidence interval proved that there is no significant difference in opinion of principals and teachers in infrastructural facilities, laboratory, equipment, lesson planning and preparedness of teachers, application of relevant teaching method, utilization of relevant instructional resources, students' participation in the lesson, classroom management. Appraisal services, orientation services, crises counseling.

Similarly, Buhari(2009) discovered the inadequate utilization of facilities in most schools in Nigeria was one of the factors responsible for low quality of the teacherseducation system in the country in a similar contribution Adenipekun (2013) observed that the few schools that have well equipped worships, teachers assigned to handle the technical subjects could not even operate the tools and other machines. Hence only the theoretical aspects of the subjects were taught to the students while the much need practical aspects were completely neglected. Meanwhile,generally the observed frequencies of teachers that responded to inadequate, low or ineffective were lower than the expected the observed frequencies for those teachers that responded to average.

Normal or normal were higher than the expected frequencies respectively. Therefore the tables in appendix shows that the cross-tabulation with observed and expected

frequencies for both principals and teachers opinion on quality of resources, quantity of resources, quality of teaching and learning in the school, extra-curricular activities, availability of guidance and counseling services.

These research findings have relationship with the view of Banks and clegg in Udom (2006) that teaching with suitable instructional materials and resources improved the learning activities while Bechtol and Conte (1976) as well as Nedosa (2000) agreed that instructional materials and resources represented a form of teaching assistant which could help both teachers and the students to achieve a variety of classroom objectives.

In contrast, another important factor for poor performance among students could be the near absence of instructional materials and resources among social studies teachers in Plateau State. Nedosa (2000) stressed on the need for a functional use of teaching and learning materials in the classrooms to facilitate attainment of educational objectives.

In line with, Adenipekun (2013) also warned that no school curriculum can have desired effect on learners if instructional tools and materials are not available. He further lamented that at the time when the inclination of entrepreneur skills that will enable the child to be self dependent occupies a central stage of the basic educational curriculum. It is said to note that most of the Nigerian schools do not have the equipment and tools which are vital to effective teaching of introductory technology and other technical subjects.

The findings support the widely accepted views of some of the scholars, like Philips (1997) noted that electricity supply is significant to various units of the schools for instance classroom lighting plays a particularly critical role in students academic performance. Similarly studies in the United Kingdom (UK) and the united state of America (USA) indicate that students cannot study unless there is adequate lighting. So also Haerter (1991) the major concern of the classroom teacher is how teaching and instructions in general can bring about effective and efficient learning.

The percentage of NCE teacher in jigawa state senior secondary education was 24.50%. The percentage of Degree holders was 71.42%.where as only 3.67% were master and PhD. By qualification.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the research, the procedure, and the study findings, the conclusions from the outcomes, as well as the recommendation for improvement and for further studies.

5.2 Summary

The study examined the efficiency and effectiveness of resources in Senior Secondary School within Jigawa State, the study also investigated the teaching and learning, the availability of guidance and counseling and extra curriculum activities in senior secondary school.

The quality of staff and subsequent performance of students in Senior Secondary School could be greatly determined by the availability or otherwise of suitable school facilities and effective utilization of other learning resources. It is against this background that the study investigated the efficiency and effectiveness of senior secondary school education in Jigawa State from 2009 – 2013. The study was based on the system theory used by Bertalanfy (1968), a biologist, as the basis for the field of study known as "general system theory", a multi disciplinary field. Related literature in the field of educational administration and planning indicated that the effectiveness of any organization and the satisfaction of its member increased when the members observed that their personal goals, are being advanced along with the organization goals.

To achieve the objectives of this study a total of 108 senior secondary schools were used for the purpose of this study, 108 principals and 322 teachers in Jigawa State were selected, through stratified random sampling, as respondents in this study. Chi-square

statistics was used to analyze the data collected from principals and teachers within Jigawa State.

From the data collected and analyzed, in this study, the following results were obtained.

The study found out that there is no significant difference in opinion of the principals and teachers on quantity of resources in senior secondary school within Jigawa State.

There is also no significant different in the quality of resources in senior secondary school within the state.

The quality of teacher from the finding shows normal the quality of non teaching staff from finding are inadequate.

Therefore, the findings of this research suggest that principals in senior secondary school in Jigawa State can easily achieved efficiency and effectiveness in their school by using the available resources or improvisation i.e. teachers can provide the teaching aids by also having qualitative teachers etc.

- Information services and competent guidance and counseling masters/mistress. Moreover, majority of the principal do not regards information services important aspect in education.
- Vocational guidance: There is general lack of manpower in guidance and counseling which lead to so many problems related to it.
- Follow-up services: Due to inexperience in handling educational administration, a number of staff hardly follow-up a case or leave it unnoticed!
- Family counseling: There are a lot of problem associated to it. A number of few guidance and counseling are inexperienced, not married talk less of having kids which s extremely unusual for them to be considerate in matters regarding family, let alone inviting parent or guidance down to school for a case hearing.

- Crises counseling: Out of One Hundred and Twenty Nine (129) Senior Secondary School in the state, only nine (9) state unity schools were equipped with this service. Majority are even unaware of the service.

5.3 **CONCLUSIONS**

From the findings conclusion could be drawn that:

The quantity of resources was of high quantity.

The quality of recourses was found to be qualitative

The quality of teaching and learning was effective

The extra-curricular activity was found to be on regular bases.

Guidance and counseling was found to be unsatisfactory!

The quality of educational output were normal

The quantity of educational output were found to be normal

5.4**RECOMMENDATIONS**

The following are recommendations based in the findings:

The following recommendations were made based on the finding .They are as follows:

I. The quantity of resources supplied to senior secondary schools should be improved
II. The resources supplied to senior secondary schools should be adequately improved
III. The quality of teaching/learning in senior secondary school should be maintained and improved
IV. Extracurricular activities in our senior secondary school should be up to expectations taking into consideration the norms and values of the people of Jigawa state
V. Guidance and counseling unit and the officers to man the department should be adequately provided in all senior secondary school across the state

VI. The quantity of teaching/non teaching staff, Infrastructural facilities, Instructional Material should be adequately provided in all schools so as to enhance teaching and learning process in all senior secondary school across the state.

VII. To measure quantity and quality of the research after a period of time for constant efficiency and effectiveness of senior secondary school education.

5.6 SUGGESTIONS FOR FURTHER STUDY

1) A similar study could be conducted in other state since this was restricted to Jigawa State Senior Secondary School only.
2) This kind of study can be conducted on private senior secondary schools in the state particularly with the view to examine the efficiency and effectiveness and students achievements.
3) There is need for studies on monitoring and inspection in the senior secondary school in Jigawa State.
4) Similar studies can be conducted on the teacher/students ration.
5) More research can be conducted on input and output in senior secondary school in the state in order to find out the percentage of students with five credits and above including English and Mathematics.
6) Research can be conducted on the role functions of state. (SEIMU) in the monitoring and quality control of senior secondary schools in Jigawa State.

5.7 JUSTIFICATION

The justifications as to why there is need for further studies are as follows:

I. Private school were not included in the research work

II. There is need for a similar researcher work to be carried out in other states so as to compare and contrasts with their academic achievements with that of Jigawa state

III. A similar study may be conducted on monitoring and inspection in senior secondary schools within the state so as to boost the moral of both the dedicated staff and unserious ones

IV. The is need to carry out the research on teachers/students ratio to enable the government to bridge the gap between

V. To determine input and output after a period of time to distinguish changes

VI. There is need for the research to be conducted by a different body entirely i.e. (SEIMU) State Educational Inspection and Monitoring Unit to find out similarities and differences.

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APPENDIX I

INSTRUCTIONAL MATERIAL (QNTY)

			INSTRUCTIONAL MATERIAL (QNTY)			Total
			INDEQUATE	NORMAL	ADEQUATE	
PRINCIPAL		Count	15	65	28	108
		Expected Count	21.9	59.3	26.9	108.0
		% within	17.2%	27.5%	26.2%	25.1%
TEACHERS		Count	72	171	79	322
		Expected Count	65.1	176.7	80.1	322.0
		% within	82.8%	72.5%	73.8%	74.9%
Total	Count		87	236	107	430
	Expected Count		87.0	236.0	107.0	430.0
	% within		100.0%	100.0%	100.0%	100.0%

Chi-Square Value 3.670[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX II

INFRASTRUCTURAL FACILITIES (QNTY)

		INFRASTRUCTURAL FACILITIES (QNTY)			Total
		INDEQUATE	NORMAL	ADEQUATE	
PRINCIPAL	Count	32	65	11	108
	Expected Count	23.9	65.6	18.6	108.0
	% within INFRASTRUCTURAL FACILITIES (QNTY)	33.7%	24.9%	14.9%	25.1 %
TEACHERS	Count	63	196	63	322
	Expected Count	71.1	195.4	55.4	322.0
	% within	66.3%	75.1%	85.1%	74.9 %
Total	Count	95	261	74	430
	Expected Count	95.0	261.0	74.0	430.0
	% within	100.0%	100.0%	100.0%	100.0 %

Chi-Square Value 7.849[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX III

LABORATORY EQUIPMENT (QNTY)

		LABORATORY EQUIPMENT (QNTY)			Total
		INDEQUATE	NORMAL	ADEQUATE	
PRINCIPAL	Count	17	67	24	108
	Expected Count	24.6	62.3	21.1	108.0
	% within	17.3%	27.0%	28.6%	25.1%
TEACHERS	Count	81	181	60	322
	Expected Count	73.4	185.7	62.9	322.0
	% within	82.7%	73.0%	71.4%	74.9%
Total	Count	98	248	84	430
	Expected Count	98.0	248.0	84.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 4.154[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX IV

INSTRUCTIONAL MATERIAL (QLTY)

		INSTRUCTIONAL MATERIAL (QLTY)			Total
		LOW	AVERAGE	HIGH	
PRINCIPAL	Count	24	66	18	108
	Expected Count	28.4	60.0	19.6	108.0
	% within	21.2%	27.6%	23.1%	25.1%
TEACHERS	Count	89	173	60	322
	Expected Count	84.6	179.0	58.4	322.0
	% within	78.8%	72.4%	76.9%	74.9%
Total	Count	113	239	78	430
	Expected Count	113.0	239.0	78.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 1.869[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX V

INFRASTRUCTURAL FACILITIES (QLTY)

		INFRASTRUCTURAL FACILITIES (QLTY)			Total
		LOW	AVERAGE	HIGH	
PRINCIPAL	Count	31	58	19	108
	Expected Count	38.9	54.0	15.1	108.0
	% within	20.0%	27.0%	31.7%	25.1%
TEACHERS	Count	124	157	41	322
	Expected Count	116.1	161.0	44.9	322.0
	% within	80.0%	73.0%	68.3%	74.9%
Total	Count	155	215	60	430
	Expected Count	155.0	215.0	60.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 3.922[a] Chi-Square Critical Value = 5.991(df =2)

APPENDIX VI

LABORATORY EQUIPMENT (QLTY)

		LABORATORY EQUIPMENT(QLTY)			Total
		LOW	AVERAGE	HIGH	
PRINCIPAL	Count	55	38	15	108
	Expected Count	29.4	59.5	19.1	108.0
	% within	47.0%	16.0%	19.7%	25.1%
TEACHERS	Count	62	199	61	322
	Expected Count	87.6	177.5	56.9	322.0
	% within	53.0%	84.0%	80.3%	74.9%
Total	Count	117	237	76	430
	Expected Count	117.0	237.0	76.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 41.379[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIXVII

LESSON PLANNING AND PREPAREDNESS OF TEACHERS

		LESSON PLANNING AND PREPAREDNESS OF TEACHERS			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	9	76	23	108
	Expected Count	26.4	65.8	15.8	108.0
	% within	8.6%	29.0%	36.5%	25.1%
TEACHERS	Count	96	186	40	322
	Expected Count	78.6	196.2	47.2	322.0
	% within	91.4%	71.0%	63.5%	74.9%
Total	Count	105	262	63	430
	Expected Count	105.0	262.0	63.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 21.738[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIXVIII

TEACHERS PROMPT ATTENDANCE TO LESSON

		TEACHERS PROMPT ATTENDANCE TO LESSON		Total
		Not Promptly	Promptly	
PRINCIPAL	Count	30	78	108
	Expected Count	34.9	73.1	108.0
	% within	21.6%	46.2%	25.1%
TEACHERS	Count	109	213	322
	Expected Count	104.1	217.9	322.0
	% within	78.4%	153.8%	74.9%
Total	Count	139	291	430
	Expected Count	139.0	291.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 1.36[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX IX

APPLICATION OF RELEVANCE TEACHING METHODS

		APPLICATION OF RELEVANCE TEACHING METHODS			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	21	69	18	108
	Expected Count	8.5	61.5	37.9	108.0
	% within	61.8%	28.2%	11.9%	25.1%
TEACHERS	Count	13	176	133	322
	Expected Count	25.5	183.5	113.1	322.0
	% within	38.2%	71.8%	88.1%	74.9%
Total	Count	34	245	151	430
	Expected Count	34.0	245.0	151.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 39.469[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX X

UTILIZATION OF RELEVANT INSTRUCTIONAL RESOURCES

		UTILIZATION OF RELEVANT INSTRUCTIONAL RESOURCES			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	42	50	16	108
	Expected Count	15.1	55.5	37.4	108.0
	% within	70.0%	22.6%	10.7%	25.1%
TEACHERS	Count	18	171	133	322
	Expected Count	44.9	165.5	111.6	322.0
	% within	30.0%	77.4%	89.3%	74.9%
Total	Count	60	221	149	430
	Expected Count	60.0	221.0	149.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 81.374[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XI

UTILIZATION OF ADEQUATE INSTRUCTION RESOURCES

		UTILIZATION OF ADEQUATE INSTRUCTION RESOURCES			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	35	55	18	108
	Expected Count	15.8	62.5	29.6	108.0
	% within`	55.6%	22.1%	15.3%	25.1%
TEACHERS	Count	28	194	100	322
	Expected Count	47.2	186.5	88.4	322.0
	% within	44.4%	77.9%	84.7%	74.9%
Total	Count	63	249	118	430
	Expected Count	63.0	249.0	118.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 38.352[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XII

APPLICATION OF LEARNERS CENTRED APPROACH

		APPLICATION OF LEARNERS CENTRED APPROACH			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	62	36	10	108
	Expected Count	27.4	58.8	21.9	108.0
	% within	56.9%	15.4%	11.5%	25.1%
TEACHERS	Count	47	198	77	322
	Expected Count	81.6	175.2	65.1	322.0
	% within	43.1%	84.6%	88.5%	74.9%
Total	Count	109	234	87	430
	Expected Count	109.0	234.0	87.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 78.841[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XIII

CLASSROOM MANAGEMENT

			CLASSROOM MANAGEMENT			Total
			INEFFECTIVE	NORMAL	VERY EFFECTIVE	
	PRINCIPAL	Count	4	62	42	108
		Expected Count	12.1	68.8	27.1	108.0
		% within	8.3%	22.6%	38.9%	25.1%
	TEACHERS	Count	44	212	66	322
		Expected Count	35.9	205.2	80.9	322.0
		% within	91.7%	77.4%	61.1%	74.9%
Total		Count	48	274	108	430
		Expected Count	48.0	274.0	108.0	430.0
		% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 18.983[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XIV

STUDENTS PATICIPATION IN THE LESSONS

		STUDENTS PATICIPATION IN THE LESSONS			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	4	64	40	108
	Expected Count	15.1	60.0	32.9	108.0
	% within	6.7%	26.8%	30.5%	25.1%
TEACHERS	Count	56	175	91	322
	Expected Count	44.9	179.0	98.1	322.0
	% within	93.3%	73.2%	69.5%	74.9%
Total	Count	60	239	131	430
	Expected Count	60.0	239.0	131.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 13.254[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XV

STUDENTS INTEREST IN THE LESSONS

		STUDENTS INTEREST IN THE LESSONS			Total
		INEFFECTIVE	NORMAL	VERY EFFECTIVE	
PRINCIPAL	Count	12	62	34	108
	Expected Count	13.8	57.3	36.9	108.0
	% within	21.8%	27.2%	23.1%	25.1%
TEACHERS	Count	43	166	113	322
	Expected Count	41.2	170.7	110.1	322.0
	% within	78.2%	72.8%	76.9%	74.9%
Total	Count	55	228	147	430
	Expected Count	55.0	228.0	147.0	430.0
	% within	100.0%	100.0%	100.0%	100.0 %

Chi-Square Value 1.149[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XVI

STUDENTS DO CLASS EXERCISE PROMPTLY

		STUDENTS DO CLASS EXERCISE PROMPTLY		Total
		Not Promptly	Promptly	
PRINCIPAL	Count	15	93	108
	Expected Count	17.1	90.9	108.0
	% within	22.1%	48.5%	25.1%
TEACHERS	Count	53	269	322
	Expected Count	50.9	271.1	322.0
	% within	77.9%	51.4%	74.9%
Total	Count	68	362	430
	Expected Count	68.0	362.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 0.41[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XVII

STUDENTS ASK QUESTION IN THE LESSONS

		STUDENTS ASK QUESTION IN THE LESSONS		Total
		NOT FREQUENTLY	FREQUENTLY	
PRINCIPAL	Count	13	95	108
	Expected Count	16.8	91.2	108.0
	% within	19.4%	49.3%	25.1%
TEACHERS	Count	54	268	322
	Expected Count	50.2	271.8	322.0
	% within	80.6%	50.7%	74.9%
Total	Count	67	363	430
	Expected Count	67.0	363.0	430.0
	% within	100.0%	100%	100.0%

Chi-Square Value 1.36[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XVIII

TEACHERS ASK RELEVANT QUESTION

		TEACHERS ASK RELEVANT QUESTION		Total
		NOT PROMPTLY	PROMPTLY	
PRINCIPAL	Count	18	90	108
	Expected Count	19.8	88.2%	108.0
	% within	22.8%	48.1%	25.1%
TEACHERS	Count	61	261	322
	Expected Count	59.2	262.8	322.0
	% within	77.2%	51.9%	74.9%
Total	Count	79	351	430
	Expected Count	79.0	351.0	430.0
	% within	100.0%	100%	100.0%

Chi-Square Value 0.12[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XIX

SPORTS/GAMES

		SPORTS/GAMES			Total
		INFREQUENTLY	NORMAL	VERY FREQUENTLY	
PRINCIPAL	Count	10	58	40	108
	Expected Count	19.1	57.8	31.1	108.0
	% within	13.2%	25.2%	32.3%	25.1%
TEACHERS	Count	66	172	84	322
	Expected Count	56.9	172.2	92.9	322.0
	% within	86.8%	74.8%	67.7%	74.9%
Total	Count	76	230	124	430
	Expected Count	76.0	230.0	124.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 9.142[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XX

CLUBS AND SOCIETIES

		CLUBS AND SOCIETIES			Total
		INFREQUENTLY	NORMAL	VERY FREQUENTLY	
PRINCIPAL	Count	10	65	33	108
	Expected Count	11.1	59.0	37.9	108.0
	% within	22.7%	27.7%	21.9%	25.1 %
TEACHERS	Count	34	170	118	322
	Expected Count	32.9	176.0	113.1	322.0
	% within	77.3%	72.3%	78.1%	74.9 %
Total	Count	44	235	151	430
	Expected Count	44.0	235.0	151.0	430.0
	% within	100.0%	100.0%	100.0%	100.0 %

Chi-Square Value 1.796[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XXI

EXCURSIONS

		EXCURSIONS			Total
		INFREQUENTLY	NORMAL	VERY FREQUENTLY	
PRINCIPAL	Count	5	66	37	108
	Expected Count	22.4	58.8	26.9	108.0
	% within	5.6%	28.2%	34.6%	25.1%
TEACHERS	Count	84	168	70	322
	Expected Count	66.6	175.2	80.1	322.0
	% within	94.4%	71.8%	65.4%	74.9%
Total	Count	89	234	107	430
	Expected Count	89.0	234.0	107.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 24.272[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XXII

SOCIAL ACTIVITIES

		SOCIAL ACTIVITIES			Total
		INFREQUENTLY	NORMAL	VERY FREQUENTLY	
PRINCIPAL	Count	8	73	27	108
	Expected Count	25.6	62.0	20.3	108.0
	% within	7.8%	29.6%	33.3%	25.1%
TEACHERS	Count	94	174	54	322
	Expected Count	76.4	185.0	60.7	322.0
	% within	92.2%	70.4%	66.7%	74.9%
Total	Count	102	247	81	430
	Expected Count	102.0	247.0	81.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 21.676[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XXIII

OPEN DAYS

		OPEN DAYS			Total
		INFREQUENTLY	NORMAL	VERY FREQUENTLY	
PRINCIPAL	Count	10	70	28	108
	Expected Count	40.7	50.0	17.3	108.0
	% within	6.2%	35.2%	40.6%	25.1%
TEACHERS	Count	152	129	41	322
	Expected Count	121.3	149.0	51.7	322.0
	% within	93.8%	64.8%	59.4%	74.9%
Total	Count	162	199	69	430
	Expected Count	162.0	199.0	69.0	430.0
	% within	100.0%	100.0%	100.0%	100.0%

Chi-Square Value 50.389[a]

Chi-Square Critical Value = 5.991(df =2)

APPENDIX XXIV

CAREER COUNSELING

		CAREER COUNSELING		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	9	99	108
	Expected Count	32.9	75.1	108.0
	% within	6.9%	33.1%	25.1%
TEACHERS	Count	122	200	322
	Expected Count	98.1	223.9	322.0
	% within	93.1%	66.9%	74.9%
Total	Count	131	299	430
	Expected Count	131.0	299.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 33.348[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXV

EDUCATIONAL COUNSELING				
		EDUCATIONAL COUNSELING		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	27	81	108
	Expected Count	42.2	65.8	108.0
	% within	16.1%	30.9%	25.1%
TEACHERS	Count	141	181	322
	Expected Count	125.8	196.2	322.0
	% within	83.9%	69.1%	74.9%
Total	Count	168	262	430
	Expected Count	168.0	262.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 11.993[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXVI

INFORMATION SERVICE

		INFORMATION SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	38	70	108
	Expected Count	37.4	70.6	108.0
	% within	25.5%	24.9%	25.1%
TEACHERS	Count	111	211	322
	Expected Count	111.6	210.4	322.0
	% within	74.5%	75.1%	74.9%
Total	Count	149	281	430
	Expected Count	149.0	281.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value .018[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXVII

APPRAISAL SERVICE

		APPRAISAL SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	51	57	108
	Expected Count	34.7	73.3	108.0
	% within	37.0%	19.5%	25.1%
TEACHERS	Count	87	235	322
	Expected Count	103.3	218.7	322.0
	% within	63.0%	80.5%	74.9%
Total	Count	138	292	430
	Expected Count	138.0	292.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 15.148[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXVIII

VOCATIONAL GUIDANCE

		VOCATIONAL GUIDANCE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	47	61	108
	Expected Count	48.5	59.5	108.0
	% within	24.4%	25.7%	25.1%
TEACHERS	Count	146	176	322
	Expected Count	144.5	177.5	322.0
	% within	75.6%	74.3%	74.9%
Total	Count	193	237	430
	Expected Count	193.0	237.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value .109[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXIX

ORIENTATION SERVICE				
		ORIENTATION SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	40	68	108
	Expected Count	51.5	56.5	108.0
	% within	19.5%	30.2%	25.1%
TEACHERS	Count	165	157	322
	Expected Count	153.5	168.5	322.0
	% within	80.5%	69.8%	74.9%
Total	Count	205	225	430
	Expected Count	205.0	225.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 6.542[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXX

REFERRAL SERVICE

		REFERRAL SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	33	75	108
	Expected Count	46.7	61.3	108.0
	% within	17.7%	30.7%	25.1%
TEACHERS	Count	153	169	322
	Expected Count	139.3	182.7	322.0
	% within	82.3%	69.3%	74.9%
Total	Count	186	244	430
	Expected Count	186.0	244.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 9.478[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXXI

PLACEMENT SERVICE

		PLACEMENT SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	39	69	108
	Expected Count	46.0	62.0	108.0
	% within	21.3%	27.9%	25.1%
TEACHERS	Count	144	178	322
	Expected Count	137.0	185.0	322.0
	% within	78.7%	72.1%	74.9%
Total	Count	183	247	430
	Expected Count	183.0	247.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 2.452[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXXII

FOLLOW UP SERVICE

		FOLLOW UP SERVICE		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	57	51	108
	Expected Count	58.0	50.0	108.0
	% within	24.7%	25.6%	25.1%
TEACHERS	Count	174	148	322
	Expected Count	173.0	149.0	322.0
	% within	75.3%	74.4%	74.9%
Total	Count	231	199	430
	Expected Count	231.0	199.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value .052[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXXIII

FAMILY COUNSELING

		FAMILY COUNSELING		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	61	47	108
	Expected Count	54.3	53.7	108.0
	% within	28.2%	22.0%	25.1%
TEACHERS	Count	155	167	322
	Expected Count	161.7	160.3	322.0
	% within	71.8%	78.0%	74.9%
Total	Count	216	214	430
	Expected Count	216.0	214.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 2.253[a]

Chi-Square Critical Value = 3.841(df =1)

APPENDIX XXXIV

CRISES COUNSELING

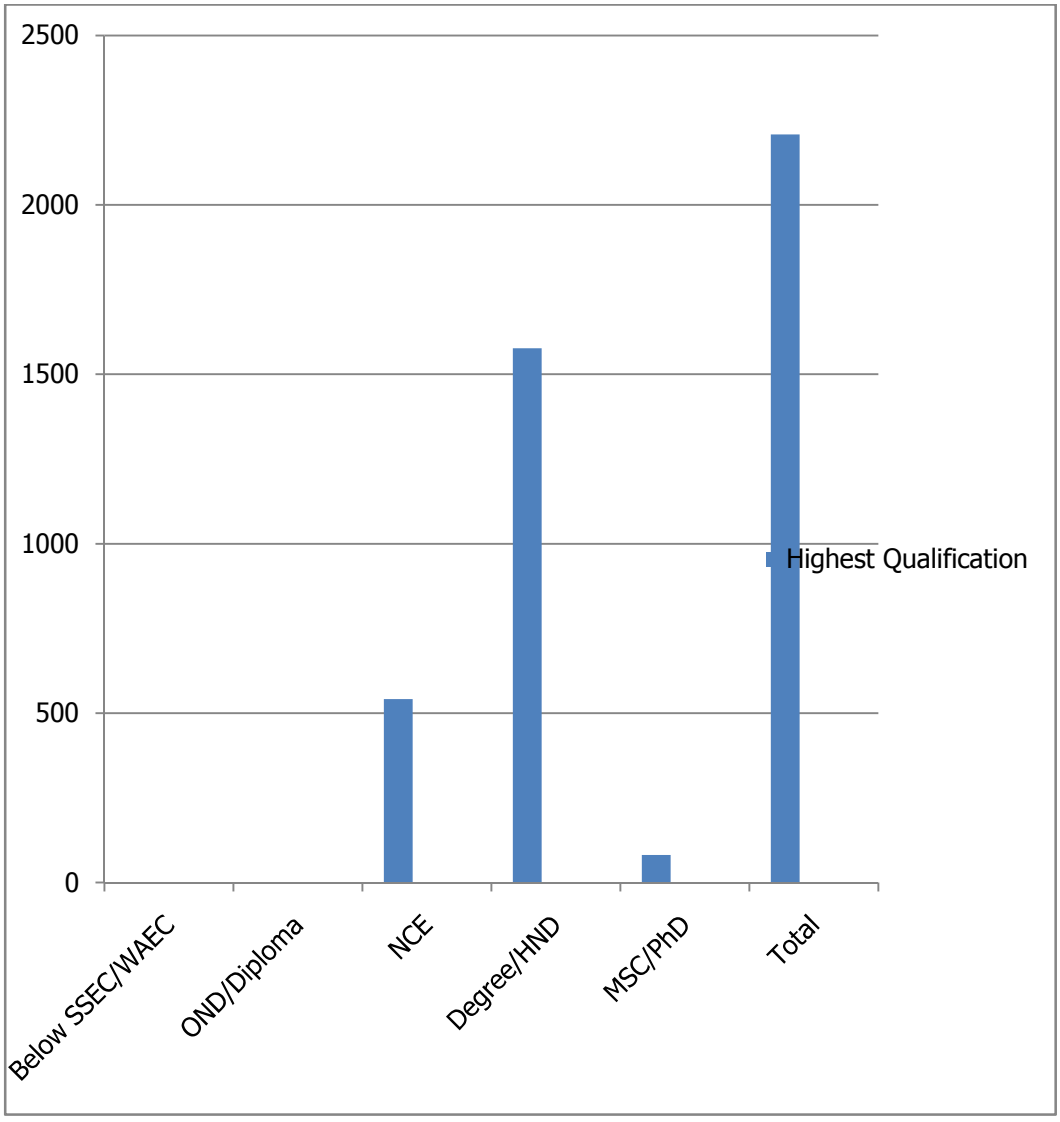
		CRISES COUNSELING		Total
		UNAVAILABLE	AVAILABLE	
PRINCIPAL	Count	70	38	108
	Expected Count	60.3	47.7	108.0
	% within	29.2%	20.0%	25.1%
TEACHERS	Count	170	152	322
	Expected Count	179.7	142.3	322.0
	% within	70.8%	80.0%	74.9%
Total	Count	240	190	430
	Expected Count	240.0	190.0	430.0
	% within	100.0%	100.0%	100.0%

Chi-Square Value 4.738[a]

Chi-Square Critical Value = 3.841(df =1)

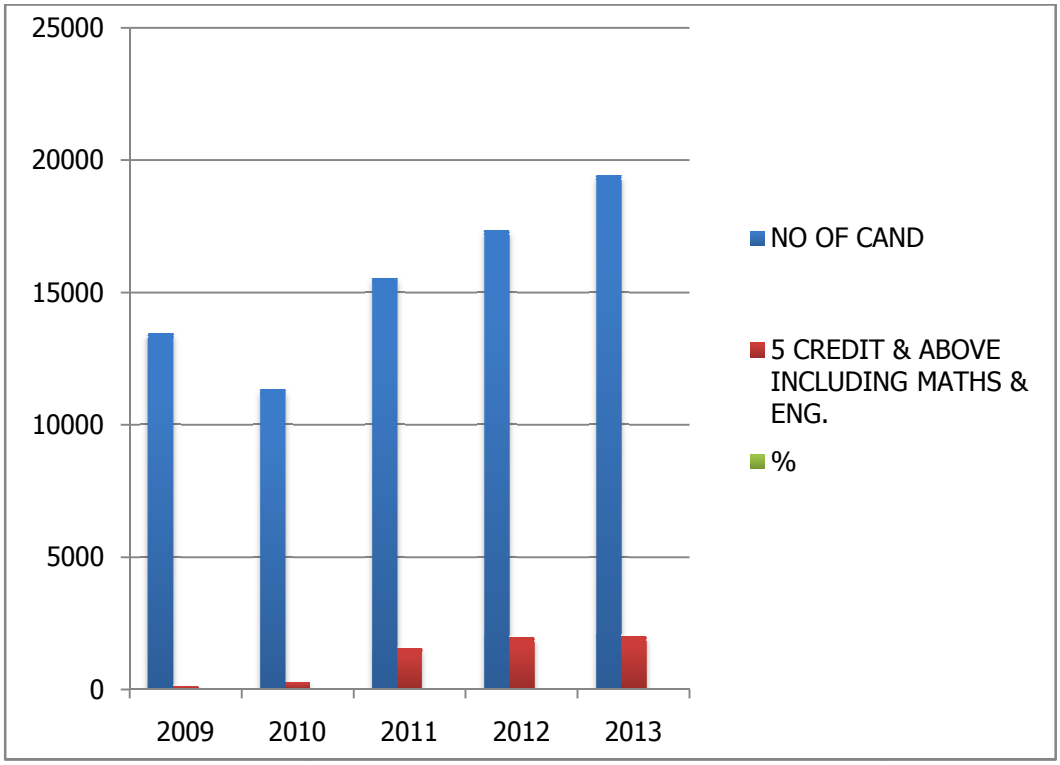
APPENDIX XXXV

Figure1.0 Bar chart Highest Qualification of Teachers in senior secondary schools in Jigawa state from 2009 to 2013.



Bar chard of performance result analysis in SSCE for WAEC and NECO examinations, from 2009 to 2013Jigawa State Education Recourse Department (JERD)

APPENDIX XXXVI



APPENDIX XXXVII

PRINCIPALS' QUESTIONNAIRE ON ASSESSMENT OF THE EFFICIENCY AND EFFECTIVENESS OF SECONDARY EDUCATION

(PQEESE)

Dear Respondent,

This instrument is designed to collect data on Assessment of the efficiency and effectiveness of Senior Secondary Education, as part of a research work to fulfill part of the requirements for the award of PhD degree in Educational Administration and Planning of the Department of Education, Bayero University, Kano. All information to be collected as a result of the administration of this instrument would be used for research purposes only.

You are please requested to answer the questions in this questionnaire by putting a tick to rate the quality and quantities of resources supplied to your school from 2009 to 2013. Your rating of the quality of teaching and learning during the period under study is also part of the instrument.

Section "A" Background Information

1. Years of working experience

a. 1-5 years ( ) b. 6-10 years ( ) c. 10 and above ( )

2. Highest Academic Qualifications

a. WAEC/NECO/ City and Guilds ( ) b. Ordinary National Diploma ( )

c. NCE d. H.N.D/ B. Ed /BSC ( ) e. M.SC/M.ED/M.A/PhD ( )

a. ( ) b. Boys and Girls ( )

3. Type of school:

a. Day ( ) b. Boarding ( ) c. a mixture of Day and Boarding ( )

4. Location of the School:

a. Urban ( ) b. Rural ( ) c. Semi-Urban ( )

Section "B" Quality and Quantity of Resources

A. Quantity

Please rate the adequacy or otherwise of resources the state ministry of education provides to your school as sufficient, average or insufficient in the following table:

		RATING		
S/N	**Resources**	**Adequate**	**Average**	**Inadequate**
1.	Teachers			
2.	Non-Teaching Staff			
3.	Instructional Materials			
4.	Infrastructural Facilities			
5.	Laboratory Equipment			
6.	Funds			

B- Quality

lease, rate the quality of resources the state ministry of education provides to your school as high, average or low in the following table:

		RATING		
S/N	**Resources**	**High**	**Average**	**Low**
1.	Teachers			
2.	Non-Teaching Staff			
3.	Instructional Materials			
4.	Infrastructural Facilities			
5.	Laboratory Equipment			
6.	Funds			

Section "C" Quality of Teaching and Learning in the School

Please assess the effectiveness or otherwise of teaching and learning activities in your school

S/N	Item	Effective	Average	Ineffective
1.	Lesson Planning and preparedness of Teachers			
2.	Teachers' Prompt attendance to lesson			
3.	Application of relevant Teaching Methods			
4.	Utilization of relevant instructional resources			
5.	Utilization of adequate instructional resources			
6.	Application of Learner-Centred Approach			
7.	Classroom management			
8.	Students participation in the lessons			
9.	Students' interest in the lessons			
10.	Students do class exercise promptly			
11	Students ask questions on the lesson			
12.	Teachers ask relevant questions			

Section "D" Extra-Curricular activities

Please rate the frequency or otherwise of extra-curricular activities in the school;

S/N	Activity	Frequently	Average	Infrequently
1.	Sport/ Games			
2.	Clubs and societies			
3.	Excursions			
4.	Social Activity			
5.	Open Days			

Section "E" Availability of Guidance and Counseling Services

Please rate the availability or otherwise of Guidance and Counseling services in the school

S/N	Service	Available	Unavailable
1.	Career Counseling		
2.	Educational Counseling		
3.	Information Service		
4.	Appraisal Service		
5.	Vocational Guidance		
6.	Orientation Service		
7.	Referral Service		
8.	Placement Service		
9.	Follow-Up Service		
10.	Family Counseling		
11.	Crises Counseling		

Thank for responding.

APPENDIX XXXVIII

TEACHERS' QUESTIONNAIRE ON ASSESSMENT OF THE EFFICIENCY AND EFFECTIVENESS OF SECONDARY EDUCATION(TQEESE)

Dear Respondent,

This instrument is designed to collect data on efficiency and effectiveness of Senior Secondary Education, as part of a research work in partial fulfillment of the requirements for the award of PhD degree in Educational Administration and Planning of the Department of Education, Bayero University, Kano. All information collected through the administration of this instrument would be used for research purposes only.

You are please requested to answer the questions in this questionnaire by putting a tick in appropriate place to rate the quality and quantities of resources supplied to your school from 2009 to 2013. Your rating of the quality of teaching and learning during the period under study is also part of the instrument.

Section "A" Background Information

5. Years of working experience

b. 1-5 years ( ) b. 6-10 years ( ) c. 10 and above ( )

6. Highest Academic Qualifications

a. WAEC/NECO/ City and Guilds ( ) b. Ordinary National Diploma ( )

c. NCE d. H.N.D/ B. Ed /BSC ( ) e. M.SC/M.ED/M.A/PhD ( )

7. What is the gender of the students in your school:

b. Boys ( ) b. Girls ( ) b. Boys and Girls ( )

8. Type of school:

b. Day ( ) b. Boarding ( ) c. a mixture of Day and Boarding ( )

9. Location of the School:

10. Urban ( ) b. Rural ( ) c. Semi-Urban ( )

Section "B" Quality and Quantity of Resources

A. Quantity

Please rate the adequacy or otherwise of resources the state ministry of education provides to your school as Adequate, Average or Inadequate in the following table:

		RATING		
S/N	**Resources**	**Adequate**	**Average**	**Inadequate**
1.	Non-Teaching Staff			
2.	Instructional Materials			
3.	Infrastructural Facilities			
4.	Laboratory Equipment			

B- Quality

Please, rate the quality of resources the state ministry of education provides to your school as high, average or low in the following table:

		RATING		
S/N	**Resources**	**High**	**Average**	**Low**
1.	Teachers welfare			
2.	Instructional Materials			
3.	Infrastructural Facilities			
4.	Laboratory Equipment			

Section "C" Quality of Teaching and Learning in the School

Please assess the effectiveness or otherwise of teaching and learning activities in your school

S/N	Item	Very Effective	Normal	Ineffective
1.	Lesson Planning and preparedness of Teachers			
2.	Teachers' Prompt attendance to lesson			
3.	Application of relevant Teaching Methods			
4.	Utilization of relevant instructional resources			
5.	Utilization of adequate instructional resources			
6.	Application of Learner-Centred Approach			
7.	Classroom management			
8.	Students participation in the lessons			
9.	Students' interest in the lessons			
10.	Students do class exercise promptly			
11	Students ask questions on the lesson			
12.	Teachers ask relevant questions			

Section "D" Extra-Curricular activities

Please rate the frequency or otherwise of extra-curricular activities in the school;

S/N	Activity	Very Frequently	Normal	Infrequently
1.	Sport/ Games			
2.	Clubs and societies			
3.	Excursions			
4.	Social Activity			
5.	Open Days			

Section "E" Availability of Guidance and Counseling Services

Please rate the availability or otherwise of Guidance and Counseling services in the school

S/N	Service	Available	Unavailable
1.	Career Counseling		
2.	Educational Counseling		
3.	Information Service		
4.	Appraisal Service		
5.	Vocational Guidance		
6.	Orientation Service		
7.	Referral Service		
8.	Placement Service		
9.	Follow-Up Service		
10.	Family Counseling		
11.	Crises Counseling		

Thank for responding.