

**ASSESSMENT OF TEACHERS' AND STUDENTS' ATTITUDES ON
UTILIZATION AND MAINTAINANCE OF SCHOOL FACILITIES IN
SECONDARY SCHOOLS IN KADUNA STATE, NIGERIA**

BY

**BAWA, Najimuddin Aliyu
NCE, B.ED (SOCIAL STUDIES)
P14EDFC8023**

SEPTEMBER, 2018

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF
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**DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND
CURRICULUM,
FACULTY OF EDUCATION,
AHMADU BELLO UNIVERSITY,
ZARIA, NIGERIA**

SEPTEMBER, 2018

DECLARATION

I hereby declare that this study titled “Assessment of Teachers’ and Students’ Attitudes on Utilization and Maintenance of School Facilities in Secondary School in Kaduna State, Nigeria; has been carried by me in the Department of Educational Foundations and Curriculum under the supervision of Dr. A.M. Jumare and Dr. M.I. Harbau. The information derived from the literature to the best of my knowledge has been duly acknowledged in the text and list of References provided. No part of this work was previously presented for another degree at any University.

.....
BAWA, Najimuddeen Aliyu

.....
Date.

CERTIFICATION

This dissertation titled “Assessment of Teachers’ and Students’ Attitudes on Utilization and Maintenance of School Facilities in Secondary Schools in Kaduna State, Nigeria; A case study of Kaduna State written by BAWA, Najimuddeen Aliyu meets the regulations governing the award of Master of Education Degree in Educational Administration and Planning.

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DEDICATION

This work is dedicated to my parents, Mal. Aliyu Moh'd Bawa and Malama Daybat Usman

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My profound gratitude goes first to the almighty Allah who is the most reason for the successful completion of my studies. To him be the glory and honour forever and ever amin. My sincere gratitude goes to my major supervisor and lecturer, in person of Dr. A.M. Jumare and also my second supervisor Dr. M. I. Harbau for their guidance and encouragement without which this dissertation would not have been a reality. May the almighty Allah bless them in all their future endeavours. I wish to express my appreciation to Dr. M.I. Harbau, the Head of Department (Educational Foundations and Curriculum) for his amicable leadership in directing the activities of the department. I also appreciate the effort of other lecturers in the Department such as Dr. M.I. Harbau, Dr. A.A. Dada, the P.G coordinator, Dr. A.M. Jumare and others.

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Abstract

The study is entitled ‘Assessment of Teachers’ and Students’ Attitudes on Utilization and Maintenance of School Facilities in Secondary Schools in Kaduna State, Nigeria. The study was guided by eight objectives, which include the examination of teachers’ and students’ attitudes on the utilization of teaching facilities in Secondary Schools in Kaduna State, Nigeria; among others. In the light of the foregoing corresponding research questions were stated which include: Is there difference between the teachers’ and students’ attitudes on the utilization of School teaching facilities in Secondary Schools in Kaduna State, Nigeria?. Some of the null hypotheses include there is no significant difference in the opinions of principals, teachers and students on teachers’ and students’ attitudes on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria. Survey research design was used for the study. The population of study was 323431 consisted of principals, teachers and students. Purposive stratified sampling technique was used to pick four educational zones to represent the three senatorial zones in the state. The sample size of 382 was used based on research advisors table for sample selection. Structured questionnaire, titled “Teachers and Students Attitudes on Utilization and Maintenance of School Facilities Questionnaire” (TSAUMSFQ) was used as a means for data collection. The instrument was validated by supervisors and statisticians for content and face validity. The instrument was pilot tested and certified as statistically fit for the main work. Simple percentage and frequency counts were used to analyze the bio-data variables of the respondents, mean and standard deviation to answer the questions raised by the study and Analysis of Variance (ANOVA) to validate the study’s null hypotheses at 0.05 level of significance. Hypotheses 1, 2, 3, 6, 7, and 8 were rejected while 4 and 5 were retained. The study among other things discovered that: Teachers and students agreed that teaching facilities are adequately utilized in secondary schools in Kaduna State, Nigeria. Teachers and students affirmed that learning facilities are adequately utilized in secondary schools in Kaduna State, Nigeria. Some recommendations were put forth which include, there should be sustained effort on utilization of teaching facilities in secondary schools in Kaduna State, Nigeria by the school management since they are adequately utilized. This will assist in promoting effective teaching in schools.

OPERATIONAL DEFINATIONS OF TERMS

ASSESSMENT: Is the act of judging or deciding the amount, value, quality, or importance of something, or the judgment or decision that is made In education, the term **assessment** refers to the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students.

Attitudes: A predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (together called stimuli).

School Facilities: Defined facilities as “Those things of education” which enable a skillful teacher to achieve a level of instruction effectiveness that exceeds by far what is possible when they are not provided.

Concept of Maintenance: according to American Association of School Admin, Origa) is the process and activities that involves keeping ground (space), buildings and the equipments at their original condition of competencies of efficiency, either through repairs or by replacement. Thus, maintenance in the school is the making sure that all that is within the school system such as facilities, structures and equipments are giving required attention through proper utilization and maintenance services for maximum benefits derivation.

LIST OF ABBREVIATIONS

JSS:	Junior Secondary School
SSS:	Senior Secondary School
IRK:	Islamic Religion Studies
CRK:	Christian Religion Studies
TSAUMSFQ:	Teachers' and Students' Attitudes on Utilization and Maintenance of School Facilities Questionnaire
SA:	Strongly Agree
A:	Agree
U:	Undecided
D:	Disagree
SD:	Strongly Disagree
ANOVA:	Analysis of Variance

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The quality of education delivered by teachers and the academic achievement of students of any school is dependent on several factors of which school teaching and learning facilities are paramount. School teaching and learning facilities are resources (human, material and place) that enhance teaching and learning, thereby making the process meaningful and purposeful. They are said to be any resource (human, material and place) that compliment and supplement effective transaction and communication between the teacher and the students.

School facilities can be referred to as school plant. school facilities can be defined as the entire school plant which school administrators, teachers and students harness, allocate and utilize for the smooth and efficient management of any educational institution, for the main objective of bringing about effective and purposeful teaching and learning experience.

Teaching and learning facilities are termed to be the most enormous part that aids the curriculum implementation in any aspect of school organization, the utilization and maintenance of school teaching and learning facilities can never be over emphasized, it must be noted that teaching facilities helps the teacher intensively in the process of imparting well and adequate knowledge to the learners while the learning facilities has no doubt in giving clear understanding of the instructions to the learners. Teaching and learning facilities in secondary schools, either private or public is the pivot on which the educational system rests. They play an important role in the education industry, hence the need for their adequate and careful maintenance by both teachers and learners for effective service delivery.

According to Adeboyeje (2000) and Emetarom (2004), school facilities are the physical and spatial enablers of teaching and learning which will increase the production of results. School facilities serve as pillars of support for effective teaching and learning. Oyesola (2000) sees school facilities to include permanent and semi-permanent structures such as machinery, laboratory equipment, the blackboard, teacher's tools and other equipment as well as consumables.

Good quality and standard of school depend largely on the provision, adequacy, utilization and management of educational facilities. Akinsolu (2004) asserted that educational curriculum cannot be sound and well operated with poor and badly managed school facilities. From all indication, school facilities are physical resources that facilitate effective teaching and learning. They include blocks of classrooms, laboratories, workshops, libraries, equipment, consumables, electricity, water, visual and audio-visual aids, tables, desks, chairs, playground, storage space and toilets.

The provision of Educational Facilities is the combined responsibility of the public and the private sectors. Execution of educational programmes demands that facilities are provided if success is to be achieved. Government, school proprietors, parents and other stakeholders are expected to provide the facilities for their schools. The Government stated that all stakeholders would be involved in every aspect of school management. This undoubtedly includes the provision of school plants. However, this aspect is one of the most neglected areas in the school system (Olagboye, 2004).

In Nigeria, public school enrolment has continued to increase without a corresponding increase in facilities for effective teaching and learning. As a result of underfunding of education in Nigeria, the government has been encouraging proper maintenance of available school facilities.

School facility maintenance entails ensuring that the facilities are kept near their original state as possible. This involves keeping the school sports and football field clean, periodic renovation of the buildings, servicing the school bus and generator sets, repairs etc. for the purpose of restoring the facilities to optimum working condition.

Olagboje (1998) sees school plant maintenance as any work carried out on any component of the plant with a view to keeping it at good working condition. According to Hinum (1999) the quality and durability of a building largely depend on the type and level of servicing, repairs and the rate at which the needs and requirement change. School facilities management involves keeping records of the facilities, supervising the facilities, planning for the facilities, motivating students and teachers to participate in facilities maintenance and evaluating the available facilities. Plethora research reports have revealed that a significant relationship existed between school environment and students' attitude to schooling (Akinlua and Adeogun, 2007; Oyira, 2007; Ikoya and Onoyase, 2008) studies have also shown that the condition of school teaching and learning facilities have a strong effect on academic performance of pupils. Chan (1979) found that students who were taught in modernized buildings scored consistently higher across a range of standardized tests. Adeboyeje (2000) reported that schools with well-coordinated plant planning and maintenance practices recorded better students' performance.

However, on the aspect of utilization of school plants in secondary schools, Adeboyeje (2000) stated that utilization is the-degree or extent to which an item has been put into effective use. According to him, various degrees of utilization include non-utilization, under-utilization, maximum utilization, optimum utilization and over-utilization. Non-utilization occurs when a facility is not put into use at all. When a facility is not used in its full capacity, under utilization

occurs. There is over-utilization when a facility is used more than its capacity. These degrees of utilization constitute a waste of resources and are counter-productive.

Nwadiani (2001) observed that the facilities are not only over utilized, they are also poorly maintained. Similarly, in a study conducted by Aigboje (2007) on Universal Basic Education in Nigeria, he found out that some school facilities were inadequate while others were not available at all .These situations are posing challenges to administrators of schools who are supposed to manage available facilities efficiently and effectively.

Burkett and bowers (1987) reported that students in newer schools with adequate school facilities outperformed students in older schools with inadequate school facilities. Conducive school physical environment could enhance students' school attendance, involvement in academic activities and academic performance positively. In addition, Adesina (1999) stressed that the quality and quantity of educational facilities available within an educational system positively correlates with the quality and standard of the educational system. Durosaro (1998) examined school plant planning in relation to administrative effectiveness of secondary schools in Oyo state of Nigeria. He found that schools that planned and maintained their facilities had higher students' retention and is more effective than the others. Many scholars, researchers, administrators and educational planners have confirmed that school facilities in Nigerian schools are inadequate and few available ones are being over utilized due to the astronomical increase in school enrolment. Ikoya and Onoyase (2008) reported that only 26% of secondary schools across the country have school infrastructures in adequate quality and quantity.

Ajayi (1999) reported that most of the Nigerian primary schools are dilapidated due to inadequate funding while most tertiary institutions are living in their past glories. Such situation hinders effective teaching and learning, making the process rigorous and uninteresting to

students and teachers. Similarly, Owuamanam (2005) noted that the inadequacy of infrastructural facilities and lack of maintenance for available facilities were major problems facing Nigerian educational system. The school facilities are grossly inadequate to match the student's population and the available facilities were poorly maintained. The availability and maintenance of school facilities will enhance teaching and learning and improve academic performance of students.

Researchers like Wilcockson (1994), Lawal (1996), Ajayi (1999) and Owoeye (2000) have long identified the importance of school facilities in teaching and learning while the inadequacy, deterioration and lack of maintenance of these facilities will spell doom for the teachers and students in the teaching and learning activities. Negligence in the maintenance of school facilities has many negative consequences. When school facilities are not well managed and maintained, they constitute health hazards to pupils and teachers who use the facilities.

For instance Ogonor (2001) reported the killing of pupils and teachers of a primary school in Nigeria when the school walls and roofs collapsed. Even large amount of money invested on school facilities are wasted when school buildings and equipment are left to deteriorate without maintenance. It has been observed that school facilities are not been maintained by school administrators and hence their depreciation. the administrators appears to spend much time on instructional planning, curriculum development, personnel development and community relations claiming that the management and maintenance of school facilities is the sole preserves of the government. This study examines the teachers and learners attitudes on the utilization and maintenance of school facilities in secondary schools in Kaduna State, Nigeria. With focus on the area of teaching, learning, convenience and sport/recreational facilities based on their

utilization and the maintenance provided, factors encouraging school facilities depreciation and the roles of school administrators in the management and maintenance of school facilities.

1.2 Statement of the Problem

Education facilities are like raw materials to an industry and thus they are very essential to the whole processes involved in the educational enterprise. Educational development has come a long way, enrolment has risen tremendously while more money is continuously being spent on the educational enterprise with the hope of improvement in terms of classrooms, computer facilities, laboratories, libraries, furniture, water and electricity supply, etc, but the problem of implementation has continued to be crucial.

Secondary schools in Nigeria require adequate infrastructural facilities such as laboratories, classrooms, libraries, and recreational facilities for the teaching and learning to take place effectively. The quality of education that our students receive bears direct relevance to the availability or lack of infrastructural facilities and overall environment in which learning takes place. In other words, educational programmes and processes are greatly influenced by the school environment. The availability and general appearance of classrooms, libraries, laboratories and instructional materials such as textbooks, blackboards and furniture of school constitutes the bases upon which many patrons make their initial judgment about the quality of the school and the educational programmes, the absence of these facilities often leave a lot of doubt in the minds of students, parents and the general society as to what type of learning and teaching that could take place in such a situation. Nigeria's secondary schools face the combined challenges of deteriorating conditions, out-of-date design and capacity utilization pressures. These combined deficiencies impair the quality of teaching and learning and also create health and safety problems for staff and students. The effects of deteriorating condition and poor

maintenance of school infrastructure are threats to school management, curriculum delivery and students' academic performance. The poor academic success of students in examinations had been largely attributed to inadequate provision and management of school plant which include teaching facilities, learning, recreational and sport and welfare facilities. This consequently leads to ineffective implementation of the school curriculum. Hence, there is a big gap in quality, resulting from large number of students in crowded classrooms, using inadequate and obsolete equipment and with disillusioned teachers.

Appearance and general condition of school facilities are the striking basis upon which many parents and friends of any educational institution make the initial judgment about the quality of what goes on in the secondary schools. Africa in general and Nigerian in particular are characterized by low maintenance culture, especially in respect of government owned properties. Halimatu (2003) observed that school infrastructure is fast deteriorating, while maintenance culture is declining. Many facilities are mismanaged or over utilized which result to damage or collapse of such facilities. Shortages of facilities bring about stretching the inadequate facilities available and consequently result to complete breakdown. Inadequate maintenance of facilities leads to waste and thereby making plans ineffective. Musa (2003) opined that lack of facilities management result in depression in the academic programme and waste of resources.

Absence facilities management also result in low students' performance as learning becomes difficult. Inadequate utilization and maintenance of infrastructural facilities in secondary schools has apparently given rise to the allegation of falling standard of education in Kaduna state as well as the country. a researcher has observed during visit to some schools for supervision that most schools compound were bushy, have dilapidated building with leaking roofs, broken chairs and desks, rough floors and windows without louvers. In some of the schools, the buildings were

dirty, no lighting while some have blown roofs. The road leading to sport field in some schools were weedy. This shows adequate utilizations, management and maintenance are not provided on the available school facilities. School facilities are supposed to be kept in good condition in near their original state as much as possible by school administrators. But from observation and complaints, it shows that school administrators are neglecting on the role of school facilities utilization and maintenance.

1.3 Objectives of the Study

The main objective of this study is to assess teachers' and students' attitudes on Utilization and Maintenance of school facilities in secondary schools in Kaduna state, Nigeria. The study is guided by the following specific objectives which are to:

1. Examine teachers' and students' attitudes on the utilization of teaching facilities in Secondary Schools in Kaduna State, Nigeria;
2. find out teachers' and students' attitudes on the utilization of learning facilities in Secondary Schools in Kaduna State, Nigeria;
3. investigate teachers' and students' attitudes on the utilization of convenience facilities in Secondary Schools in Kaduna State, Nigeria;
4. determine teachers' and students' attitudes on the utilization of sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria;
5. ascertain teachers' and students' attitudes on the maintenance of teaching facilities in Secondary Schools in Kaduna State, Nigeria;
6. determine teachers' and students' attitudes on the maintenance of learning facilities in Secondary Schools in Kaduna State, Nigeria;

7. examine teachers' and students' attitudes on the maintenance of Convenience facilities in Secondary Schools in Kaduna State, Nigeria;
8. investigate teachers' and students' attitudes on the maintenance of sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria;

1.4 Research Questions

The study was guided by the following research questions:

1. What is the difference between teachers' and students' attitudes on the utilization of School teaching facilities in Secondary Schools in Kaduna State, Nigeria?
2. To What extent is the difference between teachers' and students' attitudes on the utilization of school learning facilities in Secondary Schools in Kaduna State Nigeria?
3. To What extent is the difference between teachers' and students' attitudes on the utilization of schools Convenience facilities in Secondary Schools in Kaduna State Nigeria?
4. What is the difference between teachers' and students' attitudes on the utilization of school sport/Recreational facilities in Secondary Schools in Kaduna State Nigeria?
5. Is there difference between teachers' and students' attitudes on the maintenance of school teaching facilities in Secondary Schools in Kaduna State Nigeria?
6. Is there difference between teachers' and students' attitudes on the maintenance of school learning facilities in Secondary Schools in Kaduna State Nigeria?
7. What is the difference between teachers' and students' attitudes on the maintenance of school Convenience facilities in Secondary Schools in Kaduna State. Nigeria?
8. Is there difference between teachers' and students' attitudes on the maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria?

1.5 Research Hypotheses

This study formulated validates the following null hypotheses:

1. There is no significant difference in the opinions of principals, teachers and students on teachers' and students' attitude on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria;
2. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of School learning facilities in Secondary Schools in Kaduna State, Nigeria;
3. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of School convenience facilities in Secondary Schools in Kaduna State, Nigeria;
4. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of sport/recreation facilities in Secondary Schools in Kaduna State, Nigeria;
5. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school teaching facilities in Secondary Schools in Kaduna State, Nigeria;
6. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria;
7. There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria;

8. There is no significant difference in the opinion of principals, teachers' and students' on teachers' and students' attitude on maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria;

1.6 Significance of the Study

The study titled Assessment of Teachers' and Students' Attitudes on the Utilization of teaching and learning facilities in secondary schools in Kaduna State, Nigeria will be of great importance and relevance to various stakeholders in the business of teaching and learning and the education industry at large. The purpose behind the above is partly attributed to the lack of proper handling of teaching and learning facilities in school by both the teachers and the learners. mostly, lack of proper maintenance of the school teaching and learning facilities leads to nit shortage which that causes a serious setback in proper impartation of knowledge by the teachers and also causes setback on the learners to assimilate easily. Therefore if education as an instrument put forward by Nigeria to assist in its quest for national growth and development, then effective utilization and maintenance of school facilities is inevitable in our educational institutions. This will help immensely in producing well-informed and articulated workforce/citizens who can fully contribute their quota towards national development.

This research work will be of great importance to the educational policy makers in locating the problems behind poor utilization and maintenance of school facilities by the teachers and students in secondary schools, especially in providing Conducive environment and atmosphere for its application. Further, the study will be of great significance to the education policy administrators in the Nigerian secondary schools, Colleges of Education Universities and other educational sector. This is because their decisions affects all and sundry in the business of teaching and learning and education industry at large.

The study's literature revealed some of the hitches militating against adequate utilization and maintenance of school facilities most especially teaching, learning, convenience and sport/recreational. This will assist the policy makers to identify the problems with a view to finding sustainable solution to them. The findings of this research will be useful to the students, as it makes them have a better understanding in making appropriate use and maintaining of school facilities. The findings of the study will also be of benefit to the teachers, in the sense that, teachers as the curriculum implementers help them in understanding the negative effect of under-utilizing and not maintaining of school facilities

The findings can provide information with which educational administrators can organize seminars, conferences and workshops for teachers. Such in-service training programmed will acquaint teachers with alternative instructional strategy for proper utilization and maintenance of school facilities in the area of teaching, learning, convenience and sport/recreational facilities. The study will also hopefully be of immense benefit to text book publishers, teacher-training institutes such as colleges of education and as well faculties of education in Nigerian universities.

The study will also serve as a contribution to knowledge and learning to all and sundry but most especially relevant to stakeholders in the teaching and learning and the education industry at large and the government of Kaduna state in specific. Further still, researchers in the field of educational school facilities as a whole will find it rich in contents and facts which serve as a reference source and a point to build upon for future researches. The research work will also bring to the limelight the need for the authority concerned to pay adequate attention to the teachers and students on effective utilization and maintenance of school facilities.

1.7 Scope of the Study

The study is delimited to secondary schools in Kaduna state. Nigeria. Therefore, the study is restricted only on the assessment of the teachers and Students attitudes on the Utilization and Maintenance of school facilities in secondary schools in Kaduna State Nigeria. (Teaching facilities, learning facilities, Convenience facilities and sport/recreational facilities in secondary schools in Kaduna State Nigeria) the study will cover both junior and senior secondary schools in Kaduna state. Nigeria

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The main aim of this research work is to assess the teachers and students attitudes on the utilization and maintenance of schools facilities in secondary schools in Kaduna state. Nigeria.

The chapter focuses on the following;

2.1 Introduction;

2.2 Conceptual Framework;

2.2.1 Concept of Assessment;

2.2.2 Concept of Attitudes;

2.2.2.1. Teachers Attitudes;

2.2.3. School Facilities;

2.2.3.1. Utilization of School Facilities;

2.2.3.2. Concept of Maintenance;

2.2.4. Teaching Facilities;

2.2.5. Learning Facilities;

2.2.6. Convenience Facilities;

2.2.7. Sport/Recreational Facilities;

2.3. Theoretical Framework;

2.4. School Facilities;

2.4.1. Types of School Facilities;

2.5. Teachers Attitudes on School Facilities;

2.5.1. Students Attitudes on School Facilities;

2.6. Utilization;

2.6.1. Utilization of Laboratory/Workshop Infrastructures;

2.6.2. Utilization of Classroom Facilities;

2.6.3. Utilization of Library Facilities;

2.6.4. Utilization of Sport/Recreational Facilities;

2.7. Maintenance;

2.7.1. Types of Maintenance;

2.7.2. Maintenance of Laboratory/Workshop Facilities;

2.7.3. Maintenance of Classroom Facilities;

2.7.4. Maintenance of Convenience Facilities;

2.7.5. Maintenance of Library Facilities;

2.8. Facility Management;

2.9. Empirical Studies;

2.10. Summary;

2.2 Conceptual Framework

This section focused on the conceptual framework. The concepts related to the study were clarified and put in the context of the study. School facilities are the physical resource inputs that makes the implementation of school curriculum easy or simple. In fact, these facilities have been found to enhance the achievement of school goals in the long run (Olutola, 1998). These facilities may be consumable or no Consumable. Olutola (1998) referred to these as school plants, while Adeboyeje (1999) grouped them as school infrastructural facilities. these facilities include the school site, classrooms, libraries, toilets, cafeteria, stores, gardens, sport fields, tools, instructional facilities, staffs and pupils furniture, teachers and pupils text books, utilities etc. there is abundant evidence that the available school facilities are far less than the required ones in the Nigerian school system (Unesco,2003). Worse still, it has been found that most of the available ones are in poor conditions for use due to poor management (Abdulkareem, 1983 in Adeboyede1999). This deplorable condition of facilities in schools has been affecting the efficiency and the effectiveness of the Nigerian school since these are the necessary tools for teachers and learners. As advised by Abdulkareem (1999), these facilities must be made, purchased, stored, distributed, utilized, and maintained properly in planning educational development. In fact, they are required inadequate quantity and quality especially in pursuing the universal basic education Programme started in 1999 in Nigeria.

2.2.1 Concept of Assessment:Is the [act](#) of [judging](#) or [deciding](#) the [amount](#), [value](#), [quality](#), or [importance](#) of something, or the [judgment](#) or [decision](#) that is made In education, the term **assessment** refers to the wide variety of methods or tools that educators use to evaluate,

measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students.

While assessments are often equated with traditional tests, especially the **standardized tests** developed by testing companies and administered to large populations of students, educators use a diverse array of assessment tools and methods to measure everything from a four-year-olds readiness for kindergarten to a twelfth-grade student's comprehension of advanced physics. Just as academic lessons have different functions, assessments are typically designed to measure specific elements of learning e.g., the level of knowledge a student already has about the concept or skill the teacher is planning to teach or the ability to comprehend and analyze different types of texts and readings. Assessments also are used to identify individual student weaknesses and strengths so that educators can provide specialized **academic support**, educational programming, or social services. In addition, assessments are developed by a wide array of groups and individuals, including teachers, district administrators, universities, private companies, state departments of education, and groups that include a combination of these individuals and institutions.

2.2.2 Concept of Attitudes: A predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (together called stimuli).

Four major components of attitude are:

- 1) **Affective:** emotions or feelings: This refers to how one's feelings or emotion either positively or negatively on a certain issues, ideas or object in a situation.

- 2) **Cognitive:** belief or opinions held consciously: This is one of the components of attitudes in which one's belief or opinion is held consciously.
- 3) **Conative:** inclination for action
- 4) **Evaluative:** positive or negative response to stimuli: This refers to the situation which one's finally evaluating a situation either positively or negatively response to stimuli.

2.2.2.1 Teachers Attitudes: It is the task of the teacher to bridge the gap between theory and practice in education. Helping the students to see how philosophy, psychology and sociology relate to what goes on in the classroom. Through him, the students' educational horizons grow so that he is helped to see his work in perspective and understand the significance of its elements. He is a manager organizing his students so as to accomplish set objectives. He is a source person providing students with information and able to guide them to other fruitful sources. He is what the French called animateur, stimulating and arousing the interest of students so that they generate their motivation. Teachers as well as other staff must all be involved in maintenance of school facilities. They should monitor and supervise usage especially by students. Where necessary like in laboratories and workshops checklist/inventory

2.2.3. School Facilities: Castaldi, (1977). Defined facilities as “Those things of education” which enable a skillful teacher to achieve a level of instruction effectiveness that exceeds by far what is possible when they are not provided.

Adesina, (1981) defined infrastructural facilities as material resources that could be used to achieve the stated goals in an organization. The infrastructural school facilities include building such as classrooms, administrative block which comprises of principal's office, vice principals and staff room. Apart from administrative offices, other buildings such as laboratories and workshops, dormitories, school library,

assembly hall, dining hall, kitchen, stores, staff quarters, school farm, toilet facilities, water and electricity, school vehicles and parks, etc.

2.2.3.1. Utilization of School Facilities: The degree to which an item is used determines its sustainability or degenerative consequences on the expertise of the school head (Adeboyeje, 2002). In managing facilities, and for them to meet the objectives, caution must be taken in the usage, that is, facilities must not be underutilized nor over-utilized, but optimally used. That is, maximum utilization occurs when facilities are put into effective use in line with the primary objectives –otherwise, it would be counter-productive. Adeboyeje (2000) stated that the utilization of facilities is of various degrees depending on the extent to which an item has been put into effective use. This includes non-utilization, underutilization, maximum utilization, optimum utilization and over-utilization. Non-utilization occurs when a facility is not put into use at all; when a facility is not used to its fullest capacity, underutilization occurs. There is over-utilization, when a facility is used more than its capacity. All of these require the ingenuity of the administrator to balance the usage and maintenance of available facilities.

Types of Utilization of Facilities

- (1) **Non- utilization:** this occurs when a facility is not put into use at all
- (2) **Under-utilization:** this is the process whereby the facility is not used to its fullest capacity
- (3) **Maximum-utilization:** This is process where the highest degree of the facility is been put to use but carefully not over-utilized the facility.
- (4) **Optimum-utilization:** this is the process whereby the facility is evenly used to capacity that is neither under-utilized nor over utilized
- (5) **Over-utilization:** This occurs when the facility is used more than its capacity

2.2.3.2 Concept of Maintenance: according to American Association School Adm, 1965 in Origa) is the process and activities that involves keeping ground (space), buildings and the equipments at their original condition of competencies of efficiency, either through repairs or by replacement. Thus, maintenance in the school is the making sure that all that is within the school system such as facilities, structures and equipments are giving required attention through proper utilization and maintenance services for maximum benefits derivation. Maintenance of Educational Facilities. A major problem facing schools today is that facilities are not properly utilized and maintained. The physical appearance of most schools proves and speaks volumes. Isaach & Musibau (2010) asserted that poorly maintained buildings, untidy walls, leaking roofs, over grown compounds may suggest that education within the buildings follow the same pattern. Facilities tend to depreciate, wear and tear as soon as they are put into use. Hence, there is need for maintenance through repairs and servicing of the components and sustaining their working conditions and capacity. According to Adeboyeje (2002), maintenance enhances performance and durability; prevents wastage, corrects breakdown and shutdown services. In the views of Grasmick, Scott, Rutherford, Meloney, Puddester and Lever, (2005), for schools as well as for all types of facilities; corrective maintenance is necessary in order to address observed deficiencies and preventive maintenance so as to protect against new deficiencies in order to greatly extend the useful life of the structure. By maintaining building structures, the costs of future repairs and major renovation are significantly reduced. Regular maintenance ensures that buildings will remain operational even under adverse weather condition. Most important, a well maintained school facility protects the health and safety of building occupants, as well as the equipments therein. There is a positive relationship between the quality of a school facility and the quality of the educational activity that takes place within as evident from the study of Craig, (2009). The

Cross River State government provides assistance for school construction in the state capital budget but the regular supervision as well maintenance of such school facilities is the sole responsibility of the state ministry of education and the secondary education board.

2.2.4. Teaching Facilities: Teaching facilities are the facilities provided to teachers so that they can use every opportunity to develop full potential. teaching facilities include classroom, chalkboard, laboratory, chairs, tables, public Address System, flip charts, models, specimens and workshop buildings, fixtures, and equipment necessary for the effective and efficient operation of the program of public education, classrooms, libraries, rooms and space for physical education, space for fine arts, restrooms, specialized laboratories, cafeterias, media centers, building equipment, building fixtures, furnishings, related exterior facilities, landscaping and paving, and similar items which the State Board of Education may determine necessary. However, educational facilities do not include swimming pools, tracks, stadiums, and other facilities or portions of facilities used primarily for athletic competition and the central and area administrative offices of local units of administration.

2.2.5. Learning Facilities: These are those facilities that can be provided and use by the students for easy and effective assimilation of the imparted knowledge giving by the teacher. It also refers to the facilities that can be manipulated by the students for the purpose of alleviating difficulties in their learning.

The followings are the facilities that effectively aid the learning process of the learners and students.

1. Computers

2. Library
3. Internet/ICT
4. Microscope
5. Projectors
6. Video CD player
7. Audio CD player
8. Text-books
9. Stationeries
10. Exercise books

2.2.6. Convenience Facilities: A toilet that is available to public. Public lavatory, public toilet, rest room, toilet facilities, wash room, comfort station. Convenience is something designed and created to serve a particular function and to afford a particular convenience service such as catering facilities, toilet facilities, educational facilities, ladies room, powder room, a woman's rest room in a public (or semipublic) building. Convenience facilities includes Toilets, dormitories, cafeteria, Stores, custodian (school plant personnel) rooms, staff residential quarters, etc

Types of convenience facilities

1. toilets
2. dormitories
3. cafeteria
4. stores
5. school plant personnel
6. staff residential quarters

7. public lavatory
8. toilet facilities
9. catering facilities

2.2.7. Sport/Recreational Facilities: Games are an integral part of a secondary school system. Care must be taken to give it the due prominence it deserves because of the development of the body, which extends to that of the mind and for the discovery of talents in the fields of sports, athletics and games. The school is bound to have a sufficient area as playground, which should be properly developed, labeled and made suitable for the free use of pieces of apparatus (Ibrahim, 2010).

In educational institutions, the following sports and games are necessary in order to cater for all sundry. There are:

- a. Athletics: track and field activities.
- b. Ball Games: Football, handball, netball, basketball, lawn tennis, table tennis, badminton, e.t.c
- c. Swimming and gymnastics. Students are to be grouped according to their interest, skills, and abilities through supervision and proper keeping of records of student's performance are necessary on the parts of the teachers in charge and the heads of institutions. Students should be made to compete among themselves and with outsiders. Sports and games are in educational institutions to make students use their leisure time judiciously, develop in them a competitive spirit, fair play and good citizenship. Furthermore, sports and games competitions are sources of advertisements for educational institutions they give students a sense of self- actualization and help to provide talented ones with some careers in life (Murfwang 2006).

Types of sport/recreational facilities

1. Basketball Facilities

2. Handball facilities
3. Table-Tennis Facilities
4. Athletics Facilities
5. Indoors/Outdoors Facilities
6. Sport Transport Facilities

2.3. Theoretical Framework :(Environmental Theory). The environmental theory developed by Florence Nightingale in the second half of the nineteenth century in England, has focused primarily on the environment, interpreted as all external conditions and influences that affect the life and development of an organism, that are able to prevent, suppress or contribute to disease and death

The disease is considered, in this theory, a restoring health process and the nurse's function is to balance the environment, in order to save the patient's life energy to recover from the disease, prioritizing the delivery of a stimulating environment for the development of the patient's health. Here lays, then, the conception of the human-being as a member of nature, an individual whose natural defenses are influenced by a healthy or unhealthy environment. Nightingale believed that providing a suitable environment was the difference in the recovery of patients and in this perception underlies the Environmentalist theory. Thus, Nightingale became known for her actions that have brought innovative results to treatment of patients. In her writings, Nightingale addresses the provision of factors for maintaining an environment that is favorable to the facilitation of the healing and healthy living processes such as: ventilation, cleaning, lighting, heat, noise, odors and feeding, so that the recovering process, established by nature, is not prevented. In nursing, such concern about the environment has existed since the foundation of

professional nursing in the second half of the nineteenth century. It can found on the present days, in a humanized care, based on environmental control around the patient, which is seen as a being that is part of relationships and interactions with the environment in which this one can be found.

It should be noted that the ambience is just one of the devices for the development of humanized care, but it can be added, among such devices: hosting with risk rating, collegiate managers, training program in health and work, reference teams and matrix support, ambience projects, companion rights and open visit and the construction of collective monitoring and evaluation processes of humanization activities. Thus, the goal of the nursing field is to provide assistance for patients in maintaining their vital capacity, satisfying their needs. Therefore, Nightingale shows that nursing is a non-healing practice, in which the patient is placed in the best condition for the action of nature. In this perspective, the focus of nursing care is on environmental hygiene, the most basic concept and characteristic of her works. In those, Nightingale lists the tasks that nurses must perform to assist sick individuals, and many of them are relevant even nowadays. The use of nursing theories is of great importance due to the practice foundation. It provides the appreciation of the knowledge of the profession and its relation with the performance of the nurses. Therefore, it is important to make a critical analysis about the theory in focus, bearing in mind that carrying out a critical analysis study of a theory assists in ensuring the validity of such and its correct use, providing relevant information for its development.

Analysis or evaluation theory is the process of examining systematically a theory by using criteria that vary depending on the authors that propose methods of analysis, which are examination of the origins of the theory, meaning, logic appropriateness, usefulness and

possibilities of generalization and test. The primary purpose of the analysis of a theory is to determine its potential contribution to the scientific knowledge. It also contributes by adding knowledge, to the perspective of practices, providing its greater solidification, and allowing the identification of faults and inconsistencies as for the use of the theory in practice. In order to critically analyze a theory; many authors have proposed methods to conduct this process such as: Walker and Avant, Meleis and Johnson and Webber. The criteria of critical analysis of these last ones were used in this study to examine the Environmental Theory of Florence Nightingale. Based on the critical model based on criteria that was proposed by Johnson and Webber, it will be discussed in this article the following: significance, boundaries, language, concepts, propositions, variables, hypothesis and the influence of the theory in the practice of nursing. Thus, the aim of this study is to analyze the Environmental Theory by Florence Nightingale through the model proposed by Johnson and Webber.

2.4. School Facilities: Castaldi, (1977). Defined facilities as “Those things of education” which enable a skillful teacher to achieve a level of instruction effectiveness that exceeds by far what is possible when they are not provided.

Adesina, (1981) defined infrastructural facilities as material resources that could be used to achieve the stated goals in an organization. The infrastructural school facilities include building such as classrooms, administrative block which comprises of principal’s office, vice principals and staff room. Apart from administrative offices, other buildings such as laboratories and workshops, dormitories, school library, assembly hall, dining hall, kitchen, stores, staff quarters, school farm, toilet facilities, water and electricity, school vehicles and parks, etc.

2.4.1. Types of School Facilities: There are different types of school facilities such as, structural facilities, instructional facilities, school records etc.

The structural facilities: Ovnigho (2004) cited that the structural facilities in schools can be grouped in to the following categories: School plant:-the school plant consists of buildings, play ground, sport fields, and outdoor equipment. The school plant can be grouped in to the school areas and housing areas. He went on to stress that, the school area is made up of classrooms, laboratories, workshop, libraries, resources rooms, school shop, school bookshop, assembly hall, furniture, road network, parking lot, administrative block. Such buildings include premises used for teaching/learning administration or those premises that are used for related purposes. The housing area on the other hand, consists of the area where accommodation is provided for both students and staff members. In some schools dispensaries or12 clinics, stores, dining halls, school poultry farm or garden, generator room, security post, are located in the housing area.

The instructional materials: These includes audio visual and visual aids, computers, projectors, type writers, etc. other facilities are school bell, school wall clock, school posters. School records: These also consist of administrative files, register, log book, certificate / testimonials, result booklets, duty books, diaries and scheme of works, departmental files, club and societies files, personnel or staff movement book, cash or finance and account book, health record book, parent teachers' association minute book, staff minutes book, etc.

2.5. Teachers Attitudes on School Facilities: It is the task of the teacher to bridge the gap between theory and practice in education. Helping the students to see how philosophy, psychology and sociology relate to what goes on in the classroom. Through him, the students' educational horizons grow so that he is helped to see his work in perspective and understand the significance of it elements. He is a manager organizing his students so as to accomplish set

objectives. He is a source person providing students with information and able to guide them to other fruitful sources. He is what the French called animateur, stimulating and arousing the interest of students so that they generate their motivation. Teachers as well as other staff must all be involved in maintenance of school facilities. They should monitor and supervise usage especially by students. Where necessary like in laboratories and workshops checklist/inventory of all equipment should be taken and adequate maintenance adhered to, this may involve simple cleaning to general servicing or replacement of faulty parts. Classroom and sports facilities should likewise be monitored and reported by relevant teachers, most a times certain persons are charged with these responsibilities to report to the school principal on regular basis.

2.5.1. Students Attitudes on School Facilities: For information on management of school facilities at the secondary school, the students have their own roles to play in the utilization and maintenance of school facilities. On their role in the management of school physical facilities, Olutola in Adesina, (1984) in Ibrahim (2010) maintained that schools which involve student in grass cutting, path hoeing, classroom sweeping, toilet cleaning, tree planting and other duties connected with school plant maintenance succeed in utilizing and maintaining a clean, beautiful, respectable school premises. Olutola's statement reaffirmed that effective management of school facilities tends to improve, if students feel involved and are responsible for the operation and maintenance of the school physical plant.

Some roles of students in the school maintenance include the followings: -

1. Overall responsibilities for maintaining discipline in the school compound outside teaching hour of the school;
2. They are responsible to keep their hostels and the school premises clean;

3. Maintain discipline and order among themselves;
4. Like the duty prefects they will report to the principal's office every morning before the assembly for briefing and any instructions on any special assignment for the day;
5. All house captains and house prefects are responsible for the maintenance and welfare of their houses;
6. Such prefects may punish students for breach of discipline, disobedience or violation of school rules;
7. They assist the sick students to receive proper medical attention from the school dispenser;
8. Also like school head-boy will be responsible to receive all visiting teams from various schools, as well as individuals and be responsible for their welfare and comfortable stay in the compound;
9. They are responsible for organizing and Maintaining discipline in the morning assembly; and
10. After the school hours the prefects will be responsible for supervising the smooth running of the school routine. For instance punishment of students, roll call, prep, bed check, light out, etc.(Dare, (2011)

2.6. Utilization: The degree to which an item is used determines its sustainability or degenerative consequences on the expertise of the school head (Adeboyeje, 2002). In managing facilities, and for them to meet the objectives, caution must be taken in the usage, that is, facilities must not be underutilized nor over-utilized, but optimally used. That is, maximum utilization occurs when facilities are put into effective use in line with the primary objectives – otherwise, it would be counter-productive. Adeboyeje (2000) stated that the utilization of

facilities is of various degrees depending on the extent to which an item has been put into effective use. This includes non-utilization, underutilization, maximum utilization, optimum utilization and over-utilization. Non-utilization occurs when a facility is not put into use at all; when a facility is not used to its fullest capacity, underutilization occurs. There is over-utilization, when a facility is used more than its capacity. All of these require the ingenuity of the administrator to balance the usage and maintenance of available facilities.

2.6.1. Utilization of Laboratory/Workshop Infrastructures: Utilization of laboratory/workshop is the act of making use of, by the staff and student for experimental purposes. In defining the laboratory, Castaldi (1977) see it as the space where staff and students perform experiments to gain knowledge on the basis of direct experiences.

He assures us that students gain knowledge in the laboratory under the guidance of an instructor, or by self-instruction. He categorized the laboratories into two which are;

1. Laboratories for Physics, Chemistry, Biology, Integrated Science and Home Economics
2. And workshop for languages, Carpentry, Engineering, Computer room, and other vocational programs should be housed in space that meets standard. There should be laboratories for the sciences that are Geography, Biology, Chemistry, Physics and General Science. So also, there is the need for workshops for the teaching of such subjects as Fine Art, Technical Drawing, Woodwork, Metal Work, Music, and Mechanics and so on.

Laboratory and workshop facilities also enable the teacher to teach the three domains of learning. These include the cognitive, the psychomotor and the affective domains. Facilities such as laboratory equipment, workshops, experimental facilities, computer machines help the teacher to

impart knowledge in the aspect of the cognitive. This involves the effective teaching of science subjects such as mathematics, physics, chemistry and biology.

Similarly, availability of laboratory and workshop facilities in the school will enhance teaching and learning in aspects such as technical drawing, mechanical, home economics and agriculture while the affected domain can be done through the use of educational pictures, story books, educational films and literature books.

Special subjects' classrooms are necessary because of the following reasons:

- a) Each specialist teacher is afforded the opportunity of adequate preparation.
- b) All teaching aid in the room is permanent for the particular subject. Such aids are easily and quickly displayed and well cared for.
- c) It makes the school equipment in the laboratories and workshops safe, secure and easy to maintain. This is because all are kept consistently in their appropriate places.
- d) As students from different streams of a class come together in the special classrooms for the same lesson, it helps to kill monotony and provide cross fertilization of ideas with due understanding of one another.

However, a great deal of careful planning must be put into it, to prevent any waste of classroom. It is unfair and rather uneconomical at any time to put up buildings that cannot be used to the optimum (Mutfwang 2006). For us to appreciate the importance of laboratory / workshop facilities there must be adequate laboratory and workshop facilities for effective teaching and learning to take place. Science laboratories should provide sufficient space for group instruction, individual experiments and adequate locked storage.

- i. The laboratory space should be sufficient to accommodate the program and equipment

- ii. Design of learning areas and instructional materials should be compatible with instructional needs or educational specifications.
- iii. Workshop programs such as carpentry and engineering should be housed in space that meets standard
- iv. Storage for teacher's materials in special learning areas should be adequate too.
- v. Laboratories apparatus should be adequate for both teachers and students' utility.
- vi. Glass should be properly located and protected to prevent accidental students contact and to ensure their safety.

Results from various research studies have shown that laboratories / workshop facilities are facilitators of teaching learning activities when properly used. According to Adesina (1988), laboratories / workshop materials are designed, produced, and used for the following reasons;

- i. They promote greater acquisition and longer retention of factual knowledge
- ii. They provide objectivity for the study of a delicate or controversial subject
- iii. They provide increased, interest in learning
- iv. They allow all members of group the opportunity to share a joint experience
- v. They get and hold attention
- vi. They provide integrated sciences that vary from concrete to abstract
- vii. They facilitate attitudes and behaviour changes
- viii. They illustrate and clarify nonverbal symbols and images quantitative relationship
- ix. They provide for a direct interaction of students with the realities of their social and physical environment
- x. They reinforce verbal message, aid teacher's presentation of the learning task.

Other scholars such as Bower & Burkett (1999), Abdulkareem (2003) and

Ayeni and Atanda (2004) also emphasized the importance of laboratories/workshop facilities in enhancing effective teaching and learning. They stressed that the availability of laboratory and workshop facilities make teaching and learning to be child centered. This implies that the facilities encourage more students' participation in learning process. It also enables the teacher to involve the various sense organs in the teaching and learning, flashing of instructional materials provides concrete objects and makes it into practical use. It also arouses the curiosity of the learner. As soon as the curiosity of the learner is aroused, a natural dependency of capturing the attention and commitment of the learner to teaching and learning can be readily achieved.

2.6.2. Utilization of Classrooms: Utilization of classroom facilities is the act of making used of classroom for effective teaching and learning exercise.

According to Oxford New Mini Dictionary (1995) a classroom is a room in a school where lessons take place. Jedo (2007) says a classroom is any place where one learns or gains experience. Classroom can be seen as a room in a school or college, in which classes are held. Structural and mechanical features of a classroom include foundation, walls, roofs, floors, ceilings and electrical wiring. Structure should meet or exceed all barriers both externally and internally. Foundations should be strong and stable. Roofs should be structurally sound and well maintained ceilings should be ensured to adequately prevent sound. Windows, doors and walls should be of good finish materials that require minimum maintenance, ceilings and walls should be the kinds that are easily cleaned and resistance to stain. Classroom floor coverings should be the type which requires minimum care.

There are elements of the classroom environment that research shows to be critical to the success of students. Physical conditions in the classroom impact student attention and focus. Elements that are important include temperature, heating and air quality (Otu, 2002). Classrooms should be

very spacious to accommodate all the students. Classroom door should be adequate to provide free movement. Emergency doors should be provided where necessary. Glass should be properly located and protected to prevent accidental students contact and to ensure their safety. Emergency lighting should be provided throughout the building. Floors should be maintained in a nonslip condition. Multi-story buildings where application should have at least two stairways. Ventilation system should be provided for adequate circulation of clean air. Lighting system should provide adequate distribution of illumination for teaching and learning. External noise should not be allowed to distract students' attention in the classroom. Color schemes, building materials and decorations should be appealing. Furniture and equipment should be the type that provides comfort and pleasing atmosphere. Instructional materials should be adequate for teachers and students utility. The space for art should be sufficient to accommodate the programme and equipment. There is need for provision of first aid box. Electrical service should be ensured. Electrical controls should be safely protected with disconnect switches easily accessible. Well maintained light sources should be properly placed to provide adequate lighting. Chalkboard should be adequately provided and well managed.

Finally, there should be provision for fire extinguisher in case of fire outbreak.

A school building can have a significant positive or negative effect towards fostering a productive learning environment. Classrooms that are dark, uncomfortable, crowded, and noisy or when the teacher is a long way from the students can be a disincentive for students to learn or even to continue with their studies (Mutfwang, 2006). Classrooms are necessary facilities in any institution of learning. Students learn under a favorable and convenient atmosphere. It is psychological that when buildings and classrooms are imposing and attractive, students tend to learn with enthusiasm out of love and interest in the conducive environment. Thus, classrooms

should be well designed in a comfortable and colorful manner to make students and teachers be proud of them. The size or dimensions of each classroom should not be too small or too large. Adequate means of ventilation should be provided in order to keep the students hygienically sound and healthy. Classrooms should be kept away from unnecessary noise and distractions.

Classroom facilities are essential educational facilities that are required for effective teaching and learning and realization of educational objectives at any level of education. Classroom facilities can be classified as durable or non-durable. The durable ones include the classroom building, structures, laboratory and workshop equipment, the library, computer machines, chalkboard, furniture and other educational equipment. Furthermore, the perishable or non-durable classroom facilities include stationery, chalk, textbooks, writing materials, educational pictures, perishable laboratory tools and spare parts.

It is the responsibility of the classroom teacher to manipulate the various classroom facilities to impart knowledge in the learner using appropriate teaching methods. The teacher is also expected to be skillful and resourceful in providing alternative facilities where the conventional ones are not available in the aspect of instructional materials.

Stated by Jedo (2007), the number of classrooms depends on the number of students and the different types of subjects to be taught and learnt. Essentially, a boarding secondary school should possess three kinds of classrooms. These are permanent classrooms, the special subject classrooms and laboratories or workshops.

a. The permanent classrooms are places where students have their individual chairs and lockers in which they keep their books.

The number of classrooms in this category depends on the number of streams in each class. For instance, a secondary school running the Junior Secondary School (JSS) system with four

streams will have 24 permanent classrooms labeled Junior Secondary School (JSS) / Form 1A, 1B, 1C, 1D and so on to Senior Secondary School (SSS) / Form 1A, 1B, 1C, 1D and so on. All these can be in form of blocks, viz:

Block A = 4 classrooms

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A permanent form teacher is assigned to mark the register and as such it is easy to discover when students are absent from school. Students have their chairs and lockers in their different classrooms. Individuals' books are kept in the lockers, thus making for proper arrangement and adequate preparation for lessons. Inside the classroom the teacher has his own table and a storage cupboard. The permanent classroom makes class order, discipline and management easy to execute.

b. The special subject classroom: These are classrooms where students in each class go when they have specialized subjects and quit as soon as they finish their own lessons. The number of such classrooms depends on the number of the special subjects. The subjects included in this category are French, Arabic,

History, IRK / CRK and Social Studies (Jedo, 2007)

The York School Division (2006) enumerated strategies which school managers and policy maker need to take seriously, for effective school maintenance.

- Roofs, ceilings, floors, walls, doors, windows and electrical fittings in classrooms should be constantly kept in good condition.
- There should be regular checking of classrooms to detect damages and an up-to-date record of damaged facilities to be taken for prompt action.
- Repairing broken furniture and leaking roofs or blown off roofs.
- Sweeping the floor, cleaning the door, windows, walls, ceilings, etc, for teaching and learning to take place effectiveness.

Maintenance of classroom facilities implies activities put in place to restore the physical condition of the classroom facilities. Principals should organize a periodic and systematic inspection for classroom facilities. This should be made in order to beautify areas of need or that need repairs. Everything in the classrooms including furniture, lockers, doors, windows, blackboard or whiteboard and laboratories equipment should be itemized on a check list and be inspected. All staff in the school including teachers and non-teaching staff should be involved in identifying and reporting those areas that needed repairs. The school head / principal in return evaluates and collects the report for onward transmission to appropriate authority for further action.

The classroom environment has great impact on teaching and learning at all levels of education. Classroom facilities in particular make teaching and learning convenient, meaningful and innovative. It is therefore necessary for all the stakeholders in the secondary education to make meaningful financial and material contributions to the provision of educational facilities for the realization of the national educational objectives in Nigeria.

2.6.3. Utilization of Library Facilities: Utilization of library facilities is process of making used of the available materials in the library for references and other educational researches. It is often

said that the greatest benefit to students after the teacher in the teaching and learning situation is a good library. In this regard, premium should be placed on the establishment and equipment of the secondary school library.

The library is centrally located on the school compound to make it easy for students to have free access to it. The building should be large and spacious enough to accommodate a sizeable number of students at any time and all the various books that are necessary on the different subjects that are taught in the institution. Apart from the subject matter textbooks, there should be sections for reference books including dictionaries and encyclopedia, provisions should also be made in the library for novels, periodicals, journals, magazines, daily papers and books on hobbies, sports, game and leisure. Books in the library are to be well labeled according to particular subjects to make it convenient for students to find out which ones they need without undue waste of time. The library can also be used as an assignment room for a class of about 35 students. The management of the school library should be in the care of student officer in charge of the library, the paid library attendants, the staff librarian and the principal (Jedo, 2007).

Castaldi (1977) had categorically enumerated basic services offered by the school library which are considered very crucial for educational purposes. They are as follows:

- i. It provides materials for use by students and teachers
- ii. It develops and promotes reading interests for both teachers and students.
- iii. It encourages research and study from many sources.
- iv. It teaches the use of books and library
- v. It provides recreational, and leisure reading
- vi. Library serves as the most important intellectual resources of the academic community

- vii. The library serves to implement the purposes of the institution's general programme and to meet the specific objectives of the institutional programme
- viii. It Endeavour to meet the legitimate demands of all its patrons. From the serious professor engaged in research to the freshman beginning education.
- ix. It stimulates and encourages the students and teacher to develop a lifelong habit of good learning.
- x. The library stresses that particular area of knowledge which is central to the curriculum.

Castaldi (1977) amplified the importance of school libraries and laboratories by stating that they are the most important instructional buildings on school campuses besides classrooms. He envisioned the library as a store house, workshop centre, the heart, where ideas from many sources are communicated to the individual learner whether he be a student, a faculty member, a research fellow and employee. He also upholds that the library is a store house of knowledge where teachers and students can Endeavour to develop their individual excellence at their own pace.

Castaldi, also maintains that the functions of the libraries to the educational system are similar to those of the heart to the body system. He strongly argues that quality education is impossible without a quality library; and one cannot have a quality school without a quality library. Thus, his view teaches educational policymakers to attach more value toward the provision of quality libraries to schools for the attainment of quality staff, students and the educational system.

2.6.4. Utilization of Sport/recreational Facilities: This is the process of making proper use of the sport facilities in the schools.

2.7. Maintenance: according to American Association of School Admin, Origa (1965) it is the process and activities that involves keeping ground (space), buildings and the equipments at their original condition of competencies of efficiency, either through repairs or by replacement. Thus, maintenance in the school is the making sure that all that is within the school system such as facilities, structures and equipments are giving required attention through proper utilization and maintenance services for maximum benefits derivation. Maintenance of educational facilities. A major problem facing schools today is that facilities are not properly utilized and maintained. The physical appearance of most schools proves and speaks volumes. Isaach & Musibau (2010) asserted that poorly maintained buildings, untidy walls, leaking roofs, over grown compounds may suggest that education within the buildings follow the same pattern. Facilities tend to depreciate, wear and tear as soon as they are put into use. Hence, there is need for maintenance through repairs and servicing of the components and sustaining their working conditions and capacity. According to Adeboyeje (2002), maintenance enhances performance and durability; prevents wastage, corrects breakdown and shutdown services. In the views of Grasmick, Scott, Rutherford, Meloney, Puddester and Lever, (2005), for schools as well as for all types of facilities; corrective maintenance is necessary in order to address observed deficiencies and preventive maintenance so as to protect against new deficiencies in order to greatly extend the useful life of the structure. By maintaining building structures, the costs of future repairs and major renovation are significantly reduced. Regular maintenance ensures that buildings will remain operational even under adverse weather condition. Most important, a well maintained school facility protects the health and safety of building occupants, as well as the equipments therein. There is a positive relationship between the quality of a school facility and the quality of the educational activity that takes place within as evident from the study of Craig, (2009). The

Cross River State government provides assistance for school construction in the state capital budget but the regular supervision as well maintenance of such school facilities is the sole responsibility of the state ministry of education and the secondary education board.

2.7.1. Types of Maintenance:

Preventive Maintenance: These are measures taken to avoid breakdown/collapse of school facilities. The opinion of Candoli – defines preventive maintenance as that programmes for servicing machines, system and structures to prevent breakdown of the system or one of its components. In the school system, the administrators could use one of the following measures as preventive mechanism.

- i. Established a school maintenance programmes among school members.
- ii. Allocate duties and location to students in the area such as classroom, ground, flowers, and hostels among others with proper supervision by the teachers.
- iii. Reward and punishment for better and non performing students and staff in the school system.
- iv. Use facilities guidelines with the view of avoiding the over-usage

Periodic Maintenance: These are checkup and repairs from time to time in the school system, e.g. some equipment are to be service monthly, annually and or depending on the usage. This could also be the changing or replacement of laboratories facilities, windows and the painting of building. Such a kind of maintenance increases the life's span of the facilities.

Replacement Maintenance: This type of maintenance denote changing of facilities and equipment for better result, this changing or replacement could be in area such as lighting facilities (wires, bulb, poles e.t.c.), Vehicle (tires, oil. e.t.c.), Water system (pipes, taps e.t.c.) and also replacement of damage windows, doors, chairs, tables e.t.c.

Emergency Maintenance: This maintenance as the name implies comes unplanned or discontentment or sudden breakdown of facilities or equipment. Fire-outbreak with damages to school properties, require emergency maintenance. Also wind blowing the school roof could be another example that requires emergency maintenance. For better responses for emergency maintenance, school need to allocate certain budgetary allocation for emergency purposes. (Jumare, 2016)

2.7.2. Maintenance of Laboratory/Workshop Facilities: In defining the laboratory, Castaldi (1977) see it as the space where staff and students perform experiments to gain knowledge on the basis of direct experiences.

He assures us that students gain knowledge in the laboratory under the guidance of an instructor, or by self-instruction. He categorized the laboratories into two which are;

1. Laboratories for Physics, Chemistry, Biology, Integrated Science and Home Economics

2. And workshop for languages, Carpentry, Engineering, Computer room, and other vocational programs should be housed in space that meets standard. There should be laboratories for the sciences that are Geography, Biology, Chemistry, Physics and General Science. So also, there is the need for workshops for the teaching of such subjects as Fine Art, Technical Drawing, Woodwork, Metal Work, Music, and Mechanics and so on.

Laboratory and workshop facilities also enable the teacher to teach the three domains of learning. These include the cognitive, the psychomotor and the affective domains. Facilities such as laboratory equipment, workshops, experimental facilities, computer machines help the teacher to impart knowledge in the aspect of the cognitive. This involves the effective teaching of science subjects such as mathematics, physics, chemistry and biology.

Similarly, availability of laboratory and workshop facilities in the school will enhance teaching and learning in aspects such as technical drawing, mechanical, home economics and agriculture while the affected domain can be done through the use of educational pictures, story books, educational films and literature books.

Special subjects' classrooms are necessary because of the following reasons:

- a. Each specialist teacher is afforded the opportunity of adequate preparation.
- b. All teaching aid in the room is permanent for the particular subject. Such aids are easily and quickly displayed and well cared for.
- c. It makes the school equipment in the laboratories and workshops safe, secure and easy to maintain. This is because all are kept consistently in their appropriate places.
- d. As students from different streams of a class come together in the special classrooms for the same lesson, it helps to kill monotony and provide cross fertilization of ideas with due understanding of one another.

However, a great deal of careful planning must be put into it, to prevent any waste of classroom. It is unfair and rather uneconomical at any time to put up buildings that cannot be used to the optimum (Mutfwang 2006). For us to appreciate the importance of laboratory / workshop facilities there must be adequate laboratory and workshop facilities for effective teaching and learning to take place. Science laboratories should provide sufficient space for group instruction, individual experiments and adequate locked storage.

1. The laboratory space should be sufficient to accommodate the program and equipment
2. Design of learning areas and instructional materials should be compatible with instructional needs or educational specifications.

3. Workshop programs such as carpentry and engineering should be housed in space that meets standard
4. Storage for teacher's materials in special learning areas should be adequate too.
5. Laboratories apparatus should be adequate for both teachers and students' utility.
6. Glass should be properly located and protected to prevent accidental students contact and to ensure their safety.

Results from various research studies have shown that laboratories / workshop facilities are facilitators of teaching learning activities when properly used. According to Adesina (1988), laboratories / workshop materials are designed, produced, and used for the following reasons;

1. They promote greater acquisition and longer retention of factual knowledge
 2. They provide objectivity for the study of a delicate or controversial subject
 3. They provide increased, interest in learning
 4. They allow all members of group the opportunity to share a joint experience
 5. They get and hold attention
- vi. They provide integrated sciences that vary from concrete to abstract
- vii. They facilitate attitudes and behaviour changes
- viii. They illustrate and clarify nonverbal symbols and images quantitative relationship
- ix. They provide for a direct interaction of students with the realities of their social and physical environment
- x. They reinforce verbal message, aid teacher's presentation of the learning task.

Other scholars such as Bower & Burkett (1999), Abdulkareem (2003) and Ayeni and Atanda (2004) also emphasized the importance of laboratories/workshop facilities in enhancing effective teaching and learning. They stressed that the availability of laboratory and

workshop facilities make teaching and learning to be child centered. This implies that the facilities encourage more students' participation in learning process. It also enables the teacher to involve the various sense organs in the teaching and learning, flashing of instructional materials provides concrete objects and makes it into practical use. It also arouses the curiosity of the learner. As soon as the curiosity of the learner is aroused, a natural dependency of capturing the attention and commitment of the learner to teaching and learning can be readily achieved.

2.7.3. Maintenance of Classroom Facilities: According to Oxford New Mini Dictionary (1995) a classroom is a room in a school where lessons take place. Jedo (2007) says a classroom is any place where one learns or gains experience. Classroom can be seen as a room in a school or college, in which classes are held. Structural and mechanical features of a classroom include foundation, walls, roofs, floors, ceilings and electrical wiring. Structure should meet or exceed all barriers both externally and internally. Foundations should be strong and stable. Roofs should be structurally sound and well maintained ceilings should be ensured to adequately prevent sound. Windows, doors and walls should be of good finish materials that require minimum maintenance, ceilings and walls should be the kinds that are easily cleaned and resistance to stain. Classroom floor coverings should be the type which requires minimum care.

There are elements of the classroom environment that research shows to be critical to the success of students. Physical conditions in the classroom impact student attention and focus. Elements that are important include temperature, heating and air quality (Otu, 2002). Classrooms should be very spacious to accommodate all the students. Classroom door should be adequate to provide free movement. Emergency doors should be provided where necessary. Glass should be properly located and protected to prevent accidental students contact and to ensure their safety. Emergency lighting should be provided throughout the building. Floors should be maintained in

a nonslip condition. Multi-story buildings where application should have at least two stairways. Ventilation system should be provided for adequate circulation of clean air. Lighting system should provide adequate distribution of illumination for teaching and learning. External noise should not be allowed to distract students' attention in the classroom. Colour schemes, building materials and decorations should be appealing. Furniture and equipment should be the type that provides comfort and pleasing atmosphere. Instructional materials should be adequate for teachers and students utility. The space for art should be sufficient to accommodate the programme and equipment. There is need for provision of first aid box. Electrical service should be ensured. Electrical controls should be safely protected with disconnect switches easily accessible. Well maintained light sources should be properly placed to provide adequate lighting. Chalkboard should be adequately provided and well managed.

Finally, there should be provision for fire extinguisher in case of fire outbreak.

A school building can have a significant positive or negative effect towards fostering a productive learning environment. Classrooms that are dark, uncomfortable, crowded, and noisy or when the teacher is a long way from the students can be a disincentive for students to learn or even to continue with their studies (Mutfwang, 2006). Classrooms are necessary facilities in any institution of learning. Students learn under a favorable and convenient atmosphere. It is psychological that when buildings and classrooms are imposing and attractive, students tend to learn with enthusiasm out of love and interest in the conducive environment. Thus, classrooms should be well designed in a comfortable and colorful manner to make students and teachers be proud of them. The size or dimensions of each classroom should not be too small or too large. Adequate means of ventilation should be provided in order to keep the students hygienically sound and healthy. Classrooms should be kept away from unnecessary noise and distractions.

Classroom facilities are essential educational facilities that are required for effective teaching and learning and realization of educational objectives at any level of education. Classroom facilities can be classified as durable or non-durable. The durable ones include the classroom building, structures, laboratory and workshop equipment, the library, computer machines, chalkboard, furniture and other educational equipment. Furthermore, the perishable or non-durable classroom facilities include stationery, chalk, textbooks, writing materials, educational pictures, perishable laboratory tools and spare parts.

It is the responsibility of the classroom teacher to manipulate the various classroom facilities to impart knowledge in the learner using appropriate teaching methods. The teacher is also expected to be skillful and resourceful in providing alternative facilities where the conventional ones are not available in the aspect of instructional materials.

Stated by Jedo (2007), the number of classrooms depends on the number of students and the different types of subjects to be taught and learnt. Essentially, a secondary school should possess three kinds of classrooms. These are permanent classrooms, the special subject classrooms and laboratories or workshops.

a. The permanent classrooms are places where students have their individual chairs and lockers in which they keep their books.

The number of classrooms in this category depends on the number of streams in each class. For instance, a secondary school running the Junior Secondary School (JSS) system with four streams will have 24 permanent classrooms labeled Junior Secondary School (JSS) / Form 1A, 1B, 1C, 1D and so on to Senior Secondary School (SSS) / Form 1A, 1B, 1C, 1D and so on. All these can be in form of blocks, viz:

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2.7.4. Maintenance of Convenience Facilities: This is the act of providing maintenance services to the facilities after usage in order to increase the life span of the facilities. Convenience facility is something designed and created to serve a particular function and to afford a particular convenience or service; "catering facilities"; "toilet facilities"; "educational facilities" ladies' room, powder room - a woman's restroom in a public (or semipublic) building e.g. latrine - a public toilet in a military area, men's room - a public toilet for men. Public

convenience - a toilet that is available to the public. Public convenience - a toilet that is available to the public. Public lavatory, public toilet, restroom, toilet facility, wash room, comfort station.

2.7.5. Maintenance of Library Facilities: It is often said that the greatest benefit to students after the teacher in the teaching and learning situation is a good library. In this regard, premium should be placed on the establishment and equipment of the secondary school library.

The library is centrally located on the school compound to make it easy for students to have free access to it. The building should be large and spacious enough to accommodate a sizeable number of students at any time and all the various books that are necessary on the different subjects that are taught in the institution. Apart from the subject matter textbooks, there should be sections for reference books including dictionaries and encyclopedia, provisions should also be made in the library for novels, periodicals, journals, magazines, daily papers and books on hobbies, sports, game and leisure. Books in the library are to be well labeled according to particular subjects to make it convenient for students to find out which ones they need without undue waste of time. The library can also be used as an assignment room for a class of about 35 students. The management of the school library should be in the care of student officer in charge of the library, the paid library attendants, the staff librarian and the principal (Jedo, 2007).

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2.8 Facility management: Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology. The International Facility Management Association defines facility management

as a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process, and technology. The skills of a facility manager can be broken down into two sections, the hard skills – tasks performed through physical or technological means – and the soft skills – tasks performed through mental intuitiveness.

2.9. Empirical Studies:

Review of Related Empirical Studies

Below are some empirical studies conducted in the area of educational school facilities?

Ifeoma (2012) conducted a study titled assessing school facilities in public secondary schools in Delta State, Nigeria. The purpose of the study was to find out the state of the facilities, the types of maintenance carried out on the facilities by school administrators, the factors encouraging school facilities depreciation and the roles of school administrators in the management and maintenance of school facilities.

The study employed the (5) ex-post-facto research design, the questionnaire was the instrument used for data collection from 640 respondents selected through stratified sampling techniques from all the 358 public secondary schools in the state. The distinguishing differences between the current study and that of. Ifeoma (2012) were in the area of research objectives, scope, methodology, sample and sampling technique and statistical analysis procedure among others.

Ukoh (2015) conducted a study titled principal ship and effective management of facilities in secondary schools in cross river state, Nigeria. The study sought to assess and investigate how the proficiency and creativity of principals affect the management of school facilities in cross river state, Nigeria. The sample of the study included 36 secondary schools, with two drawn

from each of the 18 local government areas in the state. The primary data were collected from questionnaire and personal interview while the secondary data were collected from checklists, school records & documents, journals and internet. The data were given both qualitative and quantitative treatment. Pearson product moment statistical instrument was adopted in the analysis. The outcome of the study showed that there is a significant relationship between the principal's proficiency, creativity and the overall educational objectives in the management of school facilities. The different of this study and that of the current study was in the area of scope and the tool used for data analysis, and the both study have some similarities in the area of using questionnaire as the means for data collection

Sa'ad (2014) conducted a study "title evaluation of provision and maintenance of infrastructural facilities in boarding secondary schools in yola metropolis Adamawa State, Nigeria. The study evaluates the provision and maintenance of infrastructural facilities in boarding secondary schools in Yola metropolis. The study was a survey method that covers all boarding secondary schools within Yola metropolis. The questionnaire was used to collect relevant data. Six (6) hypotheses were formulated and the testing was done by using analysis of Variance (ANOVA). The Distinguishing differences between the current study and that of Ahmed Rukaiya Sa'ad was in area of scope, in which the study was carried out in Adamawa state while the current study is in Kaduna state,

Uchendu, Ekanem and Josnah. (2013) conducted a study titled resource maintenance for the provision of educational services in public and private secondary schools in rivers state, Nigeria. The study examines the influence of Resources maintenance on the provision of educational services in public and private secondary schools in Rivers State, Nigeria. Two hypotheses were formulated to guide the study. The study utilized a descriptive survey research design and

stratified random sampling technique was used to sample seven hundred and thirty eight (738) principals and vice principals from the population of one thousand five hundred and fifteen (1,515) principals and vice principals of public and private secondary schools in Rivers States. Data were collected using researchers' constructed questionnaire titled "Resource Maintenance for the Provision of Educational Services Questionnaire (RMPESQ)". The mean, mean set and rank order as well as standard deviation and t-test were used in analyzing the null hypotheses.

2.10. Summary:

In the act of teaching and learning, the importance of the school infrastructural facilities can never be over emphasized. This is because the school facilities has not only made it easier for the smooth running of the school but has also contributed immensely in the act of teaching and learning.

It should be known that the importance of the school infrastructural facilities can only be felt in a place where things are properly organized, thereby ensuring that teaching and learning takes place. It should also appreciate that is not enough to have school facilities but efforts should be made for proper utilization and maintenance of the school facilities, as failure to do this, will lead to the failure of achieving the aims and objectives of the rationale behind having school plant. Also in a school infrastructural facilities there are considerations to be made to ensure a proper placement of structures in order not to disrupt the teaching and learning process (Ayeni and Atanda, 2004). The school infrastructural facilities play vital role in the transfer of knowledge and as such should be given due consideration. It should also acknowledge that not all facilities stated here can be found in all schools due to financial constraints and attitude of

some school administrators. But people supposed to know that all standard schools do have all that has been discussed above.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methods and procedure the researcher will be employed in the study under the following headings: Research Design, Population of Study, Sample and Sampling Technique, Instrumentation, Validity of the Instrument, Reliability of the Instrument, Pilot Study, Administration of the Instrument and Methods of Data Analysis.

3.2 Research Design

The study is a descriptive survey research in design. Survey research design according to Agber (2003) and Yabo (2007) is concerned with finding, describing and interpreting an existing phenomenon, condition or relationship between or among people or items considered to be representative of the entire group. This research design is found to be appropriate because the study is on a small group considered to be representative of the entire population. The approach used is what Nworgu (1991) described as a sample survey in which a sample data in survey research are usually collected through questionnaire to collect the data. The researcher decided to use the survey research method because only a part of the population is studied and findings from this can be generalized to the entire population.

3.3 Population of Study

The population of the study consisted of principals, teachers and students of secondary schools in Kaduna state, Nigeria. There are five hundred and fifteen (515) principals, eleven thousand and fifty three (11,053) teachers and three hundred and eleven thousand, three hundred and fourty

eight (311,348) students spread across twelve (12) educational zones of Kaduna state in the study area. Table3.1 shows the population distribution in the study area.

Table 1: Population of the study

S/N	Education Zones	No. of Schools	No. of Principals	No. of Teachers	No. of Students	Total
1	Zonkwa	51	51	829	14499	15,430
2	Zaria	48	48	1592	45390	4,7078
3	Rigachikun	30	30	515	25233	25,808
4	Lere	44	44	580	26361	2,7029
5	Kafanchan	53	53	1259	24258	25,623
6	Kachia	56	56	692	20200	2,1004
7	Kaduna	37	37	1736	44313	46,123
8	Godogodo	36	36	561	16114	16,747
9	Giwa	33	33	646	20399	21,111
10	Birnin-Gwari	21	21	250	7362	7,654
11	Anchau	41	41	896	26084	2,7062
12	Sabon Tasha	65	65	1497	41135	42,762
Total		515	515	11053	311348	323431

Source: Ministry of Education (2016)

3.4 Sample and Sampling Technique

The study used 382 respondents as representative of the study population. The decision was guided by Krejcie and Morgan (1970) and Research Advisor (2006) tables of sample selection. The study will use purposive sampling technique in selecting the study sample. Purposive sampling according to Oliver and Jupp (2006) is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research. According to Bichi in Adoke (2015) in purposive sampling elements judged to be typical or representative are chosen from the population for inclusion in the sample. This procedure is based on the

Assumption that erroneous judgment will counterbalance one another. Purposive sampling is used because of the following reasons:

- a) The results are expected to be more accurate
- b) It is less time consuming
- c) Its less expensive as it involves lesser search costs
- d) Its most appropriate respondents are selected for the study.

Table 2: Sample of the study (distribution by zone)

S/N	Zone	No of Principals		No of Teachers		No of Students		Total	Sample
1	Rigachikun	30	21	515	61	25,233	131	25,778	129
2	Zonkwa	51	36	829	99	14,449	75	15,379	77
3	Kafanchan	53	38	1,259	50	24,258	126	25,570	127
4	B/Gwari	21	15	250	30	9,567	50	9,838	49
5	Total	151	110	2,853	240	73,557	382	76,565	382

3.5 Instrumentation

The study used structured questionnaire titled “Teachers’ and Students’ Attitudes on Utilization and Maintenance of School Facilities Questionnaire (TSAUMSFQ). Questionnaire according to Shehu (2015) and Muhammad (2014) is a statement which the respondents have to react in writing so as to find out their feelings, and opinion on the designed items in the questionnaire. Questionnaire as data collection instrument has an edge over other methods of data gathering in the opinion of Shehu (2015) and Muhammad (2014) courtesy of the following aspects characteristic features:

1. Each participant enters his/her responses on the questionnaire, saving the researcher's time, compared to the time required to conduct personal interviews;
2. It is less expensive than conducting personal interviews;
3. Respondents feel that they remain anonymous and can express themselves in their own words without fear of identification;
4. Data on a broad range of topics may be collected within a limited period;
5. The format is standard for all subjects and is independent of the interviewer's mood.

The instrument is designed into eight sections in a Five Point Likert Scale where 5 is Strongly Agree (SA), 4 Agree (A), 3 Undecided(U), 2 Disagree (D), and 1 Strongly Disagree (SD) respectively. Section 'A' centers on the Personal Basic information of the respondents, section 'B' is on utilization of teaching facilities, section 'C' centers on the utilization of learning facilities, section 'D' is on the utilization of conveniences while section 'E' centers on the utilization of sports/recreation facilities. However, sections F-I centered on the maintenance of these facilities as identified above.

3.5.1 Validity of the Instrument

Validity is that quality of data gathering instrument or procedure that enable it to measure what it is supposed to measure (Abbas, 2009). The instrument was vetted by research supervisors from Educational Administration and Planning Unit, Ahmadu Bello University, Zaria. The experts scrutinized the instrument in terms of items relevance, items clarity and the extent to which it covers the utilization and maintenance of school facilities in secondary schools in Kaduna state, Nigeria. Based on the experts' scrutiny, criticisms and suggestions, amendments would be made on the instrument before the final copy is produced.

3.5.2 Pilot Study

A pilot study was conducted on 30 teachers, students and principals in 3 schools of Barewa College Zaria, Alhudahuda College and government day school Zaria, in Zaria education zone, Kaduna state, Nigeria. The goal is thus to test the study on a small scale first to sort out all the possible problems that might lead to failure of the research procedure. Also to minimize the risk of failure. The rationale for pilot study is to forestall any problem that might arise during the actual study and thereby jeopardize the validity and reliability of the test, acquaint the researcher with questionnaire administration procedure and practical problems involved in carrying out the study so as to rectify them and to assess the relevance and functionality of the research questions and hypotheses.

3.5.3 Reliability of the Instrument

Reliability is a way of ensuring that any instrument used for measuring experimental variables gives the same results every time. Reliability, according to Abbas (2009) is the degree of consistency that the instrument of procedure demonstrates. The Cronbach alpha formular for calculating reliability coefficient was used. According to Danjuma and Muhammad (2011) an instrument is considered reliable if its reliability coefficient has between 0.64 and 1.

3.6 Procedures for Data Collection

The researcher received letter of introduction from the Department of Educational Foundations and Curriculum, Ahmadu Bello University, Zaria. This enabled the researcher to obtained official data needed for the study from Ministry of Education. Further, the letters of introduction will be forwarded to the schools that fall under the study sample. This is aimed at introducing the researcher and the study motives and also as a means of soliciting for official permission and support to undertake the study. The researcher and the research assistant will administer the

questionnaires to the respondents. The questionnaire administration and retrieval will be done simultaneously. This is aimed at avoiding unwarranted delay, refusal and loss of questionnaires.

3.7 Procedure for Data Analysis

The study used percentage and frequency counts to analyze the respondents' bio-data. The arithmetic mean and standard deviation will be used in answering the research questions raised by the study. In addition the Analysis of Variance (ANOVA) will be used in testing the null hypotheses postulated by the study. This is because all the hypotheses have more than two variables; Principals, Teachers and Students. According to Ekeh (2003) ANOVA should be used for comparing groups more than two. All hypotheses will be tested at 0.05 level of significance.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This study is on the assessment of teachers' and students' attitudes on utilization and maintenance of school facilities in secondary schools in Kaduna State, Nigeria. A total of 369 respondents including principals, teachers and students were used in the study. The first section presents the basic personal information of respondents such as designation (principals, teachers and students), gender, age and marital status. The percentage and frequency counts were used to present the basic personal information of the respondents.

The second section presents answers to eight research questions. The percentage and frequency counts, cumulative mean and standard deviation were used to answer the questions posed by the study. The established decision mean of 3.00 computed based on the five Likert Scale options per questions. $(5+4+3+2+1)/5=3.00$ was used as the threshold to decision making. The third section tested the eight null hypotheses using Analysis of Variance (ANOVA) since there are three categories of respondents in the study (principals, teachers and students). All the hypotheses were tested at 0.05 level of significance. Summary of major findings as well as discussions of findings were also included in this chapter.

4.2 Biodata of Respondents

The distribution of respondents by categories is represented in table 3

Table 3: Distribution of Respondents by Designation

Category	Frequency	Percent
Students	202	54.74
Teachers	106	28.73
Principals	61	16.53
Total	369	100.0

Table 3 shows the distribution of respondents by designation or category. A total of 202 respondents representing 54.74% were students, 106 respondents representing 28.73% were teachers while 61 respondents representing 16.53% were Principals. By implication, the number of students outnumbered other categories of respondents. This was as a result of their large number in the population as obtained in the official source.

Table 4: Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	224	60.7
Female	145	39.3
Total	369	100.0

Table 4 shows that a total of 224 respondents representing 60.7% were male while 145 of the respondents representing 39.3% were females. This showed that male respondents outnumbered their female counterparts. The official data obtained from the study area shows that male population outnumbered their female counterparts.

Table 5: Distribution of Respondents by Age

Age	Frequency	Percent
15-24 Yrs	143	38.75
25-33 Yrs	118	31.98
34- Above Yrs	108	29.27
Total	369	100.0

Table 5 shows the distribution of respondents by age. Based on the figures presented in the table, 143 respondents, representing 38.75% fall between the ages of 15-24 years, 118 of the respondents, representing 31.98% fall between the ages of 25-33 years while 108 respondents, representing 29.27% fall between the ages fall between the ages of 34 and above.

4.3: Respondents Responses on the Research Questions

Presented are quantitative and qualitative answers provided for the questions raised by the study. The percentage and frequency table, mean and standard deviation were used as statistical tools to answer the questions raised. To answer this research question all the items were tabulated indicating their frequencies of response of Strongly Agree, Agree, and Undecided, Disagree and strongly disagree respectively.

4.3.1 Respondents opinions teachers' and students' attitudes on the utilization of School teaching facilities in Secondary Schools in Kaduna State, Nigeria?

Table 6: Opinions of Respondents attitudes on Utilization of Teaching Facilities in Secondary Schools in Kaduna State, Nigeria

S/ N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	classroom adequately utilized	16	4.34	51	13.82	144	39.02	71	19.24	87	23.58	2.56	1.12
2	chalk board adequately utilized	91	24.7	131	35.50	54	14.34	77	4.60	16	4.34	3.55	1.19
3	Laboratory adequately utilized	37	10.02	152	41.2	105	28.5	57	15.44	18	4.9	3.36	1.01
4	Chairs adequately utilized	88	23.84	49	13.3	53	14.4	134	36.31	45	12.2	3	1.39
5	Public Address system adequately utilized	188	50.94	24	6.50	45	12.2	77	20.9	35	9.5	3.68	1.49
6	Tables adequately utilized	21	5.7	75	20.32	167	45.3	43	11.7	63	17.07	2.85	1.1
7	flip charts adequately utilized	93	25.20	99	26.82	61	16.53	91	24.7	24	6.50	3.44	1.6
8	Models adequately utilized	28	7.6	138	37.4	82	22.2	68	18.42	53	14.4	3.05	1.19
9	Specimens adequately utilized	110	29.81	60	16.3	62	16.80	99	26.82	38	10.3	3.28	1.39
10	Workshops adequately utilized	182	49.32	36	9.8	55	14.90	63	17.07	33	8.94	3.73	1.43
Cumulative mean												3.25	

Decision mean=3.00

Table 6 shows the opinions of respondents concerning the utilization of teaching facilities in secondary schools in Kaduna State, Nigeria. The perception was high as their cumulative mean response of 3.25 was found to be higher than the decision mean of 3.00. Specifically they were

of the high opinion that workshops are adequately utilised in secondary schools as this item attracted the highest mean response of 3.734 with details showing that while 182 were in strong agreement, 36 were in agreement as against 55 that were undecided while 53 disagreed and the rest 33 in strong disagreement. In the same vein, they believe that public address system is adequately utilised in the schools as this item attracted the second highest mean response of 3.68 with details showing that while 188 were in strong agreement 24 were in agreement as against 45 that were undecided while 77 disagreed and the rest 35 in strong disagreement. Most of the items as seen in the Table 6 have individual mean responses greater than the decision mean (3.00) which signifies positive responses. On the other hand, items 1 and 6 fall short of 3.00 decision mean which signifies rejected by the respondents.

4.3.2. Respondents opinions on the teachers' and students' attitudes on the utilization of school learning facilities in Secondary Schools in Kaduna State, Nigeria?

Table 7: Opinions of Respondents on Utilization of Learning Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Item	SA		A		UD		D		SD		MEA N	STD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Computers adequately utilized	8	2.17	50	13.6	240	65.05	79	21.40	92	24.93	3.28	1.04
2	Library adequately utilized	91	24.67	131	35.5	54	14.6	77	20.86	16	4.33	3.55	1.19
3	Internet/ICT adequately utilized	30	8.13	140	37.9	90	24.4	63	17.1	46	12.5	3.12	1.01
4	Microscope adequately utilized	88	23.84	49	13.3	53	14.4	134	36.31	45	12.2	3.00	1.39
5	Projectors utilized	112	30.4	65	17.6	62	16.8	97	26.3	33	8.94	3.34	1.45
6	Video CD player utilized	21	5.7	75	20.3	167	45.3	43	11.7	63	17.07	2.86	1.10
7	Audio CD player utilized	98	26.6	104	28.2	68	18.4	82	22.2	17	4.60	3.50	1.22
8	Textbooks adequately utilized	152	41.2	105	28.5	37	10.02	57	15.44	18	4.9	3.86	1.17
9	Stationeries adequately utilized	173	46.9	47	12.8	41	11.11	75	20.32	33	8.94	3.68	1.37
10	Exercise books well and adequately utilized	196	53.1	24	6.50	45	12.2	67	18.2	35	9.48	3.74	1.47
												3.39	
Cumulative mean												3.39	

Decision mean = 3.00

Table 7 shows the opinions of the respondents on utilization of learning facilities in secondary schools in Kaduna State, Nigeria. The aggregate mean on all the items was 3.29 which were found to be higher than the decision mean of 3.000. Particularly they believed that Textbooks

adequately utilized as this item attracted the highest mean response of 3.86 with details showing that while 152 were in strong agreement, 105 were in agreement as against 37 that were undecided while 57 disagreed and the rest 18 in strong disagreement. It was also observed that Stationeries are adequately utilized as this item attracted the second highest mean agreement of 3.68 as details showed that a total of 173 of them were in strong agreement while 47 in agreement with this view as against 41 that were undecided while 75 disagreed and the rest 33 in strong disagreement. Based on the table above it can be seen that with exception of item 6 (Projectors) which has the individual mean response below the decision mean of 3.00 all the remaining items were favoured by the respondents as their individual mean responses were higher than the decision mean of 3.00 signifying positive response.

4.3.3. Respondents opinions on the teachers' and students' attitudes on the utilization of schools Convenience facilities in Secondary Schools in Kaduna State, Nigeria?

Table 8: Opinions of Respondents on Utilization of Convenience Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	freq	%	freq	%	Freq	%		
1	Toilets well utilized	146	39.57	92	24.93	3	0.81	73	19.78	55	14.9	2.46	1.04
2	Dormitories adequately utilized	91	24.7	131	35.50	54	14.63	77	20.9	16	4.33	3.55	1.19
3	Cafeteria adequately utilized	152	41.19	105	28.5	37	10.02	57	15.44	18	4.9	3.36	1.01
4	Stores well utilized	80	21.7	49	13.3	61	16.53	134	36.31	45	2.2	3.00	1.39
5	School plant personal well utilized	189	51.21	23	6.23	47	12.73	75	20.32	35	9.5	3.70	1.49
6	Staff residential quarters adequately utilized	21	5.7	63	17.07	167	45.3	43	11.7	75	20.32	2.85	1.01
7	Public lavatory adequately utilized	24	6.50	94	25.5	76	20.6	85	23.03	90	24.4	3.38	1.25
8	Toilets facilities adequately utilized	30	8.13	145	39.3	88	23.84	60	16.3	46	12.5	3.13	1.17
9	Catering facilities adequately utilized	112	30.35	62	16.80	65	17.61	97	26.28	33	8.94	3.33	1.37
10	Toilets well utilized	190	51.5	24	6.50	45	12.2	67	18.2	43	11.7	3.68	1.52
Cumulative Mean												3.24	

Decision mean 3.00

Table 8 reveals the opinions of respondents on the utilization of convenience facilities in secondary schools in Kaduna State, Nigeria. Based on the established decision mean of 3.00, most of the responses of the respondents with regards to the individual items in the Table were positive as their individual mean responses were higher than 3.00 with the exception of items (1&6). For instance most of the respondents were in agreement that school plant personal are well utilized as this item mean of 3.70 is the highest among the list. A total of 189 were in strong agreement while 23 were in agreement with this item, as against 47 that were undecided while 75 disagreed and the rest 35 in strong disagreement. It was also observed that majority believed that Toilets are well utilized as this item attracted the second highest mean response of 3.68 as details showing 190 were in strong agreement as against 24 that disagreed while 45 were undecided as against 67 that disagreed and the rest 43 in strong disagreement.

4.3.4. Respondents opinions on the teachers' and students' attitudes on the utilization of school sport/Recreational facilities in Secondary Schools in Kaduna State, Nigeria?

Table 9: Opinion of Respondents on Utilization of Sport/Recreation Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	freq	%	Freq	%	freq	%	freq	%		
1	Football pitch adequately utilized	49	13.3	51	13.82	100	27.1	75	20.3	94	25.5	3.83	1.45
2	Football equipment/gadget well utilized	89	24.11	136	36.9	52	14.09	76	20.6	16	4.33	3.30	1.38
3	Sport/game transport facilities utilized	37	10.02	150	40.7	113	30.62	53	14.4	16	4.33	3.08	1.17
4	Athletic facilities well utilized	85	23.03	48	13.00	53	14.4	140	37.94	43	11.7	3.50	1.21
5	Out – doors facilities well utilized	196	53.11	22	5.9	44	11.92	75	20.32	32	8.7	2.83	1.07
6	In – doors facilities adequately utilized	18	4.9	72	19.51	171	46.34	46	12.5	62	16.80	3.74	1.47
7	Volleyball facilities well utilized	96	26.01	106	28.72	66	17.9	83	22.5	16	4.33	2.91	1.37
8	Basketball facilities well utilized	65	17.61	100	27.1	90	24.4	67	18.2	47	12.73	3.37	.99
9	Handball facilities well utilized	11	2.98	61	16.53	62	16.80	100	27.1	35	9.5	3.55	1.18
10	Table – tennis facilities well utilized	205	55.6	25	6.8	45	12.2	61	16.53	33	8.94	2.42	1.01
Cumulative mean												3.27	

Decision mean=3.00

Table 9 shows the opinions of respondents on the utilization of sport/recreation facilities in secondary schools in Kaduna State, Nigeria. The cumulative mean of 3.27 is higher than the

decision mean of 3.000 implying that the utilization of sport/recreation facilities is high and positive. However, looking at the individual mean responses, it can be seen that majority of the items have mean responses higher than the decision mean of 3.00 signifying that their response pattern was positive. Specifically they believe that Football pitch is adequately utilized as this attracted the highest mean of 3.83 with detail showing that while 49 were in strong agreement, 51 were in agreement while 100 were undecided as against 75 that disagreed and the rest 94 in strong disagreement. However, items 5, 7 and 10 had individual mean responses below the decision mean of 3.00 signifying negative responses.

4.3.5. Respondents opinions on the teachers' and students' attitudes on the maintenance of school teaching facilities in Secondary Schools in Kaduna State, Nigeria?

Table 10: Opinion of Respondents on Maintenance of Teaching Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	classroom adequately maintained	49	13.3	51	13.82	100	27.1	75	20.32	94	25.5	3.81	1.47
2	chalk board adequately maintained	89	24.11	136	36.9	52	14.09	76	20.6	16	4.33	3.31	1.39
3	Laboratory adequately maintained	34	9.21	150	40.7	112	30.4	56	15.2	17	4.60	3.10	1.16
4	Chairs adequately maintained	85	23.03	48	13.00	53	14.4	140	37.94	43	11.7	3.50	1.21
5	Tables adequately maintained	196	53.11	22	5.96	44	11.92	75	20.32	32	8.7	2.83	1.07
6	Public Address system adequately maintained	18	4.9	72	19.51	171	46.34	46	12.5	62	16.80	3.74	1.47
7	flip charts adequately maintained	96	26.01	108	29.3	66	17.9	83	22.5	16	4.33	2.97	1.37
8	Models adequately maintained	28	7.6	141	38.21	88	23.84	66	17.9	46	12.5	3.34	.99
9	Specimens adequately maintained	112	30.35	60	16.3	63	17.07	99	26.82	35	9.5	3.55	1.18
10	Workshops adequately maintained	204	55.3	23	6.23	44	11.92	64	17.34	34	9.21	2.42	1.01
Cumulative mean												3.25	
Decision mean=3.00													

Table 10 shows the opinions of respondents on the maintenance of teaching facilities in secondary schools in Kaduna State, Nigeria. The cumulative mean is 3.25 which indicate positive response patterns by the respondents. The individual mean responses of the respondents were largely positive as their individual mean responses were higher than the decision mean of 3.00 as established by the study. The respondents agreed that classroom are adequately maintained in the school as this attracted the highest mean of 3.81 with details showing that while 49 were in strong agreement, 51 were in agreement while 100 were undecided as against 75 that disagreed and the rest 94 in strong disagreement. In contrast, items 5, 7 and 10 had individual mean responses below the established mean of 3.00 signifying negative response.

4.3.6. Respondents opinions on the teachers' and students' attitudes on the maintenance of school learning facilities in Secondary Schools in Kaduna State, Nigeria?

Table 11: Opinion of Respondents on Maintenance of Learning Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	Freq	%	Freq	%	freq	%		
1	Computers adequately maintained	2	0.54	48	13.00	147	39.83	77	20.9	95	25.74	2.41	1.02
2	Library adequately maintained	88	23.84	138	37.4	49	13.3	77	20.9	17	4.60	3.6	1.19
3	Internet/ICT adequately maintained	35	9.5	146	39.6	112	30.35	58	15.71	18	4.9	3.35	1.01
4	Microscope adequately maintained	83	22.5	49	13.3	53	14.4	141	38.21	43	11.7	3.01	1.37
5	Projectors maintained	30	8.13	135	36.6	89	24.11	68	0.18	47	12.73	3.08	1.46
6	Video CD player maintained	20	5.42	69	18.7	171	46.34	47	12.73	62	16.80	2.83	1.08
7	Audio CD player maintained	97	26.28	108	29.26	63	17.07	84	22.8	17	4.60	3.49	1.22
8	Textbooks adequately maintained	198	53.7	24	6.50	43	11.7	73	19.8	31	8.40	3.77	1.17
9	Stationeries adequately maintained	111	30.08	61	16.53	62	16.80	100	27.10	35	9.5	3.36	1.38
10	Lesson plans and books of ideas of teachers well and adequately maintained	205	55.6	25	6.8	45	12.2	61	16.53	33	8.94	2.83	1.45
Cumulative mean												3.273	

Decision mean=3.00

Table 11 shows the opinions of respondents on the maintenance of learning facilities in secondary schools in Kaduna State, Nigeria. The cumulative mean of 3.273 was found to be higher than the decision mean of 3.00 implying that the average response pattern of the respondents regarding the maintenance of learning facilities in secondary schools in Kaduna State, Nigeria was high. The individual mean responses as shown in the table above with the exception of items 1, 6 & 10 were positive. The respondents agreed that Textbooks are adequately maintained. This attracted the highest mean of 3.77 with details showing that while 198 strongly agreed, 24 simply agreed while 43 were undecided as against 73 that partially disagreed and the rest 31 in strong disagreement.

4.3.7. Respondents opinions on the teachers' and students' attitudes on the maintenance of school Convenience facilities in Secondary Schools in Kaduna State, Nigeria?

Table 12: Opinion of Respondents on Maintenance of Convenience Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Toilets well maintained	133	36.04	51	13.82	2	0.54	82	22.22	101	27.4		
2	Dormitories adequately maintained	141	38.21	85	23.03	52	14.09	75	20.32	16	4.33	3.09	1.17
3	Cafeteria adequately maintained	23	6.23	73	19.8	161	43.63	48	13.00	64	17.34	3.70	1.00
4	Stores well maintained	80	21.7	46	21.7	49	13.3	150	40.7	44	11.92	2.85	1.36
5	School plant personal well maintained	196	53.11	22	5.96	41	11.11	76	20.6	34	9.21	2.91	1.49
6	Staff residential quarters adequately maintained	23	6.23	73	19.8	161	43.63	48	13.00	64	17.34	3.73	1.11
7	Public lavatory adequately maintained	157	42.54	36	9.8	110	29.81	59	15.98	17(4.60%)	4.60	2.85	1.20
8	Toilets facilities adequately maintained	26	7.04	156	42.3	81	21.95	62	16.80	44	11.92	3.81	1.15
9	Catering facilities adequately maintained	105	28.5	64	17.34	62	16.80	102	27.64	36	9.8	3.16	1.38
10	Toilets well maintained	201	54.5	28	7.6	41	11.11	65	17.61	34	9.21	3.27	1.46
												3.80	
Cumulative mean												3.39	
Decision mean=3.00													

Table 12 shows the opinions of respondents regarding the maintenance of convenience facilities in secondary school in Kaduna State, Nigeria. The cumulative mean maintenance scores are positive on average as the cumulative mean of 3.39 was found to be higher than the decision mean of 3.00. The individual mean responses as shown in the table with the exception of items, 4 & 6 were positive. It was found out that Public lavatory adequately maintained as this view attracted the highest mean of 3.81 as details showed that a total of 157 were in strong agreement,

while 36 were in agreement while 110 were undecided as against 59 that disagreed and the rest 17 in strong disagreement. In the same vein it was found out that the Toilets are well maintained as this opinion attracted the second highest mean of 3.80 as details showed that 201 strongly agreed while 28 agreed while 41 were undecided as against 65 that disagreed and the rest 34 in strong disagreement.

4.3.8. Respondents opinions on the teachers' and students' attitudes on the maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria?

Table 13: Opinion of Respondents on Maintenance of Sport/Recreation Facilities in Secondary Schools in Kaduna State, Nigeria

S/N	Items	SA		A		UD		D		SD		MEAN	STD
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	Football pitch adequately Maintained	135	36.59	51	13.82	20	5.42	62	16.80	101	27.4		1.04
2	Football equipment/gadget well maintained	126	34.14	100	34.14	52	14.09	75	20.32	16	4.33	3.15	1.17
3	Sport/game transport facilities maintained	147	39.83	36	9.8	110	29.81	17	4.60	59	15.98	3.66	1.00
4	Athletic facilities well maintained	70	18.97	101	27.4	119	32.24	43	11.7	36	9.8	3.53	1.31
5	Out – doors facilities well maintained	190	51.5	41	11.11	22	5.96	76	20.6	34	9.21	3.34	1.49
6	In – doors facilities adequately maintained	23	6.23	73	19.8	161	43.63	48	13.00	64	17.34	3.70	1.11
7	Volleyball facilities well maintained	98	26.6	112	30.35	68	18.42	75	20.32	16	4.33	2.85	1.20
8	Basketball facilities well maintained	29	7.85	138	37.4	85	23.03	67	18.2	50	13.6	3.54	1.18
9	Handball facilities well maintained	105	28.5	64	17.34	62	16.80	102	27.64	36	9.8	3.08	1.38
10	Table – tennis facilities well maintained	201	54.5	41	11.11	28	7.6	65	17.61	34	9.21	3.27	1.46
												3.84	
Cumulative mean												3.40	

Decision mean=3.00

Table 13 shows the responses of respondents on the maintenance of sport/recreation facilities in secondary school in Kaduna State, Nigeria. The cumulative mean is 3.40 is higher than the decision mean of 3.00. The individual mean responses as shown in the Table above with the exception of item 6 were positive. Item 5 which states that Out-doors facilities are well maintained which attracted a highest mean of 3.70 with details showing that while 190 strongly agree, 41 agreed while 22 were undecided as against 76 that disagreed and the rest 34 strongly disagreed.

4.4 Hypotheses Testing

The hypotheses formulated in the study were statistically tested using statistical tools. The outcomes of the statistical analysis are presented to guide the study on either to retain or reject the null hypotheses set by the study.

Hypothesis One: There is no significant difference in the opinions of principals, teachers and students on teachers' and students' attitude on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria.

Table 14: Analysis of variance on Teachers' and Students' Attitude on Utilization of School Teaching Facilities in Secondary Schools in Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	159.207	2	79.604	4.635	.010	H ₀₁ Rejected
Within Groups	6286.392	366	17.176			
Total	6445.599	368				

Result of the Analysis of Variance statistics in Table 14 shows that significant differences exist in the opinions of principals, teachers and students on teachers' and students' attitude on the utilization of school teaching facilities in secondary schools in Kaduna State, Nigeria. Reasons

being that the calculated p value of 0.010 was found to be lower than the alpha level of significance while the calculated F ratio value of 4.635 was found to be higher than the F critical value of 2.600. Their calculated mean opinions in this regard are 32.79, 32.13 and 30.43 for principals, teachers and students respectively. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers and students on teachers' and students' attitude on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Table 15: Scheffé^{a,b} Post Hoc Tests on Teachers and Students Attitudes on Utilization of School Teaching Facilities in Secondary Schools in Kaduna state, Nigeria

Status	N	Subset for alpha = 0.05	
		1	2
Principals	61	30.4333	
Teachers	106	32.1389	32.1389
Students	202		32.7987
Sig.		.141	.745

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The Post hoc using the Scheffé test in table 15 shows that the principals and teachers had significantly higher mean opinion scores regarding teachers and students opinions on the utilization of teaching facilities in secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers and students on teachers' and students' attitude on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Hypothesis Two: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of School learning facilities in Secondary Schools in Kaduna State, Nigeria.

Table 16: Analysis of variance on Teachers' and Students' Attitude on Utilization of School Learning Facilities in Secondary Schools in Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	183.457	2	91.728	5.856	.003	H ₀ Rejected
Within Groups	5732.548	366	15.663			
Total	5916.005	368				

Result of the Analysis of Variance statistics in Table 15 shows that significant differences exist in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of school learning facilities in secondary schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.003 was found to be lower than the alpha level of significance while the calculated F ratio value of 5.846 was found to be higher than the F critical value of 2.600. Their calculated mean opinions in this regard are 29.5116, 29.5278 and 26.93433 for principals, teachers and students respectively. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of school learning facilities in secondary schools in Kaduna State, Nigeria is hereby rejected.

Table 17: Scheffé^{a,b} Post Hoc Tests on teachers and students attitude on utilization of School Learning Facilities in Secondary Schools in Kaduna state, Nigeria

Status	N	Subset for alpha = 0.05	
		1	2
Principals	61	26.9333	
Teachers	106		29.5116
Students	202		29.5278
Sig.		1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The Post hoc using the Scheffé test in table 17 shows that the principals, teachers and students had significantly higher mean opinions regarding the utilization of learning facilities in

secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of school learning facilities in secondary schools in Kaduna State, Nigeria is hereby rejected.

Hypothesis Three: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of School convenience facilities in Secondary Schools in Kaduna State, Nigeria.

Table 18: Analysis Of Variance On The Difference Between The Opinions Of Principals, Teachers And Students On Teachers' And Students' Attitude On Utilization Of School Convenience Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	186.018	2	93.009	5.581	.004	H ₀₃ Rejected
Within Groups	6099.738	366	16.666			
Total	6285.756	368				

Result of the Analysis of Variance statistics in Table 16 shows that significant differences exist in the opinions of principals, teachers and students on teachers' and students' attitude on utilization of School convenience facilities in Secondary Schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.004 was found to be lower than the alpha level of significance while the calculated F ratio value of 5.581 was found to be higher than the F critical value of 2.600. Their calculated mean opinions in this regard are 32.6381, 32.9722 and 30.1000 for principals, teachers and students respectively. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of school convenience facilities in secondary schools in Kaduna State, Nigeria is hereby rejected.

Table 19: Scheffé^{a,B} Post Hoc Tests on Teachers and Students Attitudes on Utilization of School Convenience Facilities in Secondary Schools in Kaduna State, Nigeria

STATUS	N	Subset for alpha = 0.05	
		1	2
Principals	61	30.1000	
Students	202		32.6370
Teachers	106		32.9722
Sig.		1.000	.924

The Post hoc using the Scheffé test in table 19 shows that the students and teachers had significantly higher mean regarding the utilization of convenience facilities. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of school convenience facilities in secondary schools in Kaduna State, Nigeria is hereby rejected.

Hypothesis Four: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of sport/recreation facilities in Secondary Schools in Kaduna State, Nigeria.

Table 20: Analysis Of Variance On The Difference Between The Opinions Of Principals, Teachers And Students On Teachers' And Students' Attitude On Utilization of School Sport/Recreation Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	33.980	2	16.990	1.470	.231	H ₀₄ Retained
Within Groups	4229.375	366	11.556			
Total	4263.355	368				

Result of the Analysis of Variance statistics in Table 20 shows that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of sport/recreation facilities in secondary schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.231 was found to be higher than the alpha level of significance while the calculated F ratio value of 1.470 was found to be lower than the F critical value of 2.600. Their calculated mean opinions in this regard are 32.7393, 32.3611 and 31.6667 for principals, teachers and students respectively. Consequently the null hypothesis which states there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on utilization of sport/recreation facilities in secondary schools in Kaduna State, Nigeria is hereby accepted and retained.

The Post hoc using the Scheffé test in table 21 shows that the principals, teachers and students were all placed in the same subset implying that there is no significant difference in their mean opinions regarding the utilization of sport/recreation facilities in secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on

utilization of sport/recreation facilities in secondary schools in Kaduna State, Nigeria is hereby accepted and retained.

Hypothesis Five: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school teaching facilities in Secondary Schools in Kaduna State, Nigeria.

Table 21: Analysis of Variance on the Difference between the Opinions of Principals, Teachers and Students on Teachers' and Students' Attitude on Maintenance of School Teaching Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	39.830	2	19.915	1.695	.185	H ₀₅ Retained
Within Groups	4300.371	366	11.750			
Total	4340.201	368				

Table 22: Scheffé^{a,b} Post Hoc Tests on Teachers and Students Attitudes on Maintenance of School Teaching Facilities in Secondary Schools in Kaduna state, Nigeria

		Subset for alpha = 0.05
STATUS	N	1
Principals	61	31.6667
Teachers	106	32.2778
Students	202	32.7888
Sig.		.288

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Result of the Analysis of Variance statistics in Table 18 shows that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students'

attitude on maintenance of school teaching facilities in secondary schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.185 was found to be lower than the alpha level of significance while the calculated F ratio value of 4.635 was found to be higher than the F critical value of 1.695. Their calculated opinions in this regard are 32.788, 32.2778 and 31.6667 by principals, teachers and students respectively. The Post hoc using the Scheffé test shows that the principals, teachers and students all had their mean opinions placed in the same subset one implying that there is no significant difference. Therefore the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school teaching facilities in Secondary Schools in Kaduna State, Nigeria is hereby accepted and retained.

Hypothesis Six: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria.

Table 23: Analysis of Variance on the Difference between the Opinions of Principals, Teachers and Students on Teachers' And Students' Attitude On Maintenance Of School Learning Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	186.018	2	93.009	5.581	.014	H ₀₆ Rejected
Within Groups	6099.738	366	16.666			
Total	6285.756	368				

Result of the Analysis of Variance statistics in Table 24 shows that significant differences exist in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.014 was found to be lower than the alpha level of

significance while the calculated F ratio value of 5.581 was found to be higher than the F critical value of 2.600. Their calculated mean opinions in this regard are 33.6370, 33.9722 and 31.0000 for principals, teachers and students respectively. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Table 24: Scheffé^{a,b} Post Hoc Tests on Teachers and Students Attitudes on Maintenance of Learning Facilities in Secondary Schools in Kaduna State, Nigeria

Status	N	Subset for alpha = 0.05	
		1	2
Principals	61	31.1000	
Students	202		33.6370
Teachers	106		33.9722
Sig.		1.000	.924

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The Post hoc using the Scheffé test in table 25 shows that the students and teachers had significantly higher mean opinions regarding the maintenance of schools learning facilities secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Hypothesis Seven: There is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria.

Table 25: Analysis Of Variance on Teachers And Students On Teachers’ And Students’ Attitude On Maintenance Of School Convenience Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	8.996	2	4.778	5.318	.028	
Within Groups	4451.603	366	25.715			H ₀ Rejected
Total	561.599	368				

Result of the Analysis of Variance statistics in Table 26 shows that significant differences exist in the opinions of principals, teachers’ and students’ on teachers’ and students’ attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.028 was found to be lower than the alpha level of significance while the calculated F ratio value of 5.318 was found to be higher than the F critical value of 2.600. Their calculated opinions in this regard are 34.4653, 34.9444 and 31.9667 for principals, teachers and students respectively. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers’ and students’ on teachers’ and students’ attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Table 26: Scheffé^{a, b} Post Hoc Tests on Teachers and Students Attitudes on Maintenance of School Convenience Facilities in Secondary Schools in Kaduna State, Nigeria

Status	N	Subset for alpha = 0.05	
		1	2
Principals	61	32.1000	
Students	202		34.6370
Teachers	106		34.9822
Sig.		1.000	.924

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The Post hoc using the Scheffé test in table 27 shows that the students and teachers had significantly higher mean opinions regarding maintenance of convenience facilities in secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states that there is no significant difference in the opinions of principals, teachers' and students' on teachers' and students' attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Hypothesis Eight: There is no significant difference in the opinion of principals, teachers' and students' on teachers' and students' attitude on maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria.

Table 27: Analysis Of Variance On The Difference Between The Opinions Of Principals, Teachers And Students On Teachers' And Students' Attitude On Maintenance Of School Sport/Recreation Facilities In Secondary Schools In Kaduna State, Nigeria

	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	71.045	2	35.522	3.259	.006	
Within Groups	5756.489	366	15.728			H ₀₈ Rejected
Total	5827.534	368				

Result of the Analysis of Variance statistics in Table 28 shows that significant differences exist in the opinion of principals, teachers' and students' on teachers' and students' attitude on maintenance of school sport/recreational facilities in secondary schools in Kaduna State, Nigeria. Reasons being that the calculated p value of 0.006 was found to be lower than the alpha level of significance while the calculated F ratio value of 3.259 was found to be higher than the F critical value of 2.600. Their calculated opinions in this regard are 35.4618, 35.5568 and 32.1100 for principals, teachers and students respectively.

Table 28: Scheffé^{a, b} Post Hoc Tests on Teachers and Students Attitudes on Maintenance of School Sport/Recreation Facilities in Secondary Schools in Kaduna State, Nigeria

Subset for alpha = 0.05			
Status	N	1	2
Principals	61	32.1100	
Students	202		35.4618
Teachers	106		35.5568
Sig.		1.000	.924

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 46.576.

The Post hoc using the Scheffé test in table 28 shows that the students and teachers had significantly higher mean opinions regarding the maintenance of school sports/recreation facilities in secondary schools in Kaduna State, Nigeria. Consequently the null hypothesis which states that there is no significant difference in the opinion of principals, teachers' and students' on teachers' and students' attitude on maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria is hereby rejected.

Table 28: Summary of Hypotheses Testing

S/N	Hypotheses	Statistical Tool	Results	Level of sig.	Decision
1	There is no significant difference in the opinions of respondents on teachers' and students' attitude on utilization of school teaching facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 4.635 and f-critical is 2.600 level of significance while p-value is 0.010	0.05	H0 ₁ Rejected
2	There is no significant difference in the opinions of respondents on teachers' and students' attitude on utilization of School learning facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 5.846 and f-critical is 2.600 level of significance while p-value is 0.003	0.05	H0 ₂ Rejected
3	There is no significant difference in the opinions of respondents on teachers' and students' attitude on utilization of School convenience facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 5.581 and f-critical is 2.600 level of significance while p-value is 0.004	0.05	H0 ₃ Rejected
4	There is no significant difference in the opinions of respondents on teachers' and students' attitude on utilization of sport/recreation facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 1.470 and f-critical is 2.600 level of significance while p-value is 0.231	0.05	H0 ₄ Retained
5	There is no significant difference in the opinions of respondents on teachers' and students' attitude on maintenance of school teaching facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 4.635 and f-critical is 1.695 level of significance while p-value is 0.185	0.05	H0 ₅ Retained
6	There is no significant difference in the opinions of respondents on teachers' and students' attitude on maintenance of School learning facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 5.581 and f-critical is 2.600 level of significance while p-value is 0.014	0.05	H0 ₆ Rejected
7	There is no significant difference in the opinions of respondents on teachers' and students' attitude on maintenance of school convenience facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 5.318 and f-critical is 2.600 level of significance while p-value is 0.028	0.05	H0 ₇ Rejected
8	There is no significant difference in the opinion of respondents on teachers' and students' attitude on maintenance of school sport/recreational facilities in Secondary Schools in Kaduna State, Nigeria.	Analysis of Variance (ANOVA)	f-ratio is 3.259 and f-critical is 2.600 level of significance while p-value is 0.006	0.05	H0 ₈ Rejected

Level of significance = 0.05

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4.6 Summary of Findings

The study discovered that:

1. Teaching facilities such as classroom, chalk board, Laboratory, Chairs, Public Address system, Tables are adequately utilized in secondary schools in Kaduna State, Nigeria;
2. Learning facilities such as Computers, Library, Internet/ICT, Projectors are adequately utilized in secondary schools in Kaduna State, Nigeria;
3. Convenience facilities such as Toilets, Cafeteria, Stores, Staff Residential quarters School plant personal are well utilized in secondary schools in Kaduna State, Nigeria;
4. Sport and recreation facilities such as Football pitch, Football equipment/gadget, Sport/game transport facilities, Volleyball facilities are well utilized in secondary schools in Kaduna State, Nigeria;
5. Teaching facilities such as classroom, chalk board, Laboratory, Chairs, Public Address system, Tables are partially maintained in secondary schools in Kaduna State, Nigeria;
6. Learning facilities such as Computers, Library, Internet/ICT, Projectors are fairly maintained in secondary schools in Kaduna State, Nigeria;
7. Convenience facilities such as Toilets, Cafeteria, Stores, Staff Residential quarters School plant personal are fairly maintained in secondary schools in Kaduna State, Nigeria;
8. Sports and recreation facilities such as Football pitch, Football equipment/gadget, Sport/game transport facilities, and Volleyball facilities are moderately maintained in secondary schools in Kaduna State, Nigeria;

4.6 Discussion of the Finding

Teaching facilities are adequately utilized in secondary schools in Kaduna State, Nigeria;

This findings was contrary with that of Lawanson, Olukemi AnikeGede, Ngozi Tari who were with the opinion that facilities in secondary schools are not adequately provided for the implementation of educational programs, they further indicate that there are dilapidated school buildings, ill- equipped libraries and laboratories, lack of games facilities, computers leads to poor educational condition in secondary schools

Learning facilities are adequately utilized in secondary schools in Kaduna State, Nigeria; while the current findings assert that learning facilities in secondary schools are adequately utilized, while that Lawanson, Olukemi, AnikeGede and Ngozi Tari where at the contrary view of agitating for adequate provision and well maintenance of school learning facilities in secondary schools. Also they said that the school head should ensure optimal utilization of these facilities and make sure that they are well maintained when provided.

Convenience facilities are well utilized in secondary schools in Kaduna State, Nigeria; while the current findings affirmed that convenience facilities are well utilized, that of Adamu (2001), Bako (2001), Wasagu (2002), Okeem (1992) and Nwagwu (1978) in Barakatu Abdullahi Ph.D, were of the contrary view that secondary schools sector of education are not properly funded, even to take care of the provision and maintenance of the school facilities

Sport and recreation facilities are well utilized in secondary schools in Kaduna State, Nigeria; while the current findings revealed that sport and recreation facilities are well utilized, the finding of idris research is contrary by the views of some Researchers like Wilcockson (1994); Lawal (1996); Ajayi (1999); Owoeye (2000) have long identified the importance of school facilities in teaching and learning while the inadequacy, deterioration and lack of maintenance of these facilities will spell doom for the teachers and students in the teaching and learning activities. Negligence in the maintenance of school facilities has many negative

consequences. When facilities in schools are inadequately maintained, they constitute health hazards to students and teachers who use the facilities. For instance Ogonor (Asiyai, 2012) reported the killing of pupils and teachers of a primary school in Nigeria when the school walls and roofs collapsed.

However, there is poor maintenance culture, especially in primary and post primary schools in Nigeria with numerous evidence of leaking roofs, peeling walls, inadequate seats and overpopulation and ill-equipped laboratories (Asiyai, 2012). It is generally accepted that good facilities are needed for quality education.

Teaching facilities are partially maintained in secondary schools in Kaduna State, Nigeria; this findings correlate with the opinion of Okoro (1991), whose pointed out that the facilities which include buildings, equipment, tools and school materials available are inadequate for effective use and the little provided are fairly maintained in TVE institutions.

Learning facilities are fairly maintained in secondary schools in Kaduna State, Nigeria; based on the current findings, it affirmed that learning facilities in secondary schools are fairly maintained. Similarly in the findings of other researcher below was with the views that In Nigeria, public school enrolment has continued to increase without a corresponding increase in facilities for effective teaching and learning. As a result of underfunding of education in Nigeria, the government has been encouraging maintenance of available facilities in schools (Asiyai, 2012). Maintenance of facilities in schools entails ensuring that the facilities are kept near their original state as possible. This involves keeping the school sports and football field clean, periodic renovation of the buildings, servicing the school bus and generator sets, repairs etc. for the purpose of restoring the facilities to optimum working condition.

However, Olagboje (Asiyai. 2012) states that maintenance in TVE institution is any work that is carried out on any component of the schools facilities with a view to keeping it at good working condition. According to Hinum (1999) the quality and durability of a building largely depend on the type and level of servicing, repairs and the rate at which the needs and requirement change. Management of facilities in schools involves Facilities Provision and Maintenance: Necessity for Effective Teaching and Learning in Technical

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses summary of the research, conclusions on the basis of the findings of the research. Further, some recommendations were put forward based on the findings of the study.

5.2 Summary

The study is entitled ‘Assessment of Teachers’ and Students’ Attitudes on Utilization and Maintenance of School Facilities in Secondary Schools in Kaduna State, Nigeria. The study was guided by eight objectives, eight research questions and eight corresponding hypotheses. However, the study used principals, teachers and students. Furthermore, related empirical studies were reviewed, citing similarities and identifying differences with the current study. The review further identifies some of the gaps between the current study and other studies.

Survey research design was used for the study and purposive sampling technique to pick sample was used. The study also used structured questionnaire, titled “Teachers and Students Attitudes on Utilization and Maintenance of School Facilities Questionnaire (TSAUMSFQ) as a means of data collection”. The instrument was validated by supervisors and statisticians for content and face values. The study pilot tested the instrument and it was certified as statistically fit for the main work.

However, the study used simple percentage and frequency counts to analyze the bio-data variables of the respondents mean and standard deviation to answer the questions raised by the study and Analysis of Variance (ANOVA) to validate the study's null hypotheses.

5.3 Conclusions

In the light of foregoing, it is concluded that:

1. Teaching facilities are adequately utilized in secondary schools in Kaduna State, Nigeria;
2. Learning facilities are adequately utilized in secondary schools in Kaduna State, Nigeria;
3. Convenience facilities are well utilized in secondary schools in Kaduna State, Nigeria;
4. It is affirmed that Sport and recreation facilities are well utilized in secondary schools in Kaduna State, Nigeria;
5. Teaching facilities are partially maintained in secondary schools in Kaduna State, Nigeria;
6. It is affirmed that Learning facilities are fairly maintained in secondary schools in Kaduna State, Nigeria;
7. Convenience facilities are fairly maintained in secondary schools in Kaduna State, Nigeria;
8. It is affirmed that Sports and recreation facilities are moderately maintained in secondary schools in Kaduna State, Nigeria;

5.4 Contributions to Knowledge

The study has the following contribution to knowledge and literary presentations:

- i. The findings of this study has shown that available facilities such as teaching facilities, learning facilities, convenience facilities and sports and recreational facilities in secondary schools in Kaduna state are adequately utilized
- ii. The findings of the study have also indicated that on the average school facilities are fairly maintained in secondary schools in Kaduna state.
- iii. The study avail future researchers with questions that will motivate their curiosity to partake in other studies with a view to fill the gaps left.

5.5 Recommendations

On the basis of the study's outcome, the following recommendations are put forth:

1. There should be sustained effort on utilization of teaching facilities in secondary schools in Kaduna State, Nigeria by school management since they are adequately utilized. This will assist in promoting effective teaching in schools;
2. The utilization of learning facilities should be sustained in secondary schools in Kaduna State, Nigeria by school management since they are well utilized. This will assist in promoting effective learning in schools;
3. The utilization of convenience facilities should also be sustained in secondary schools in Kaduna State, Nigeria by school management for effective staff and students welfare;
4. Sport and recreation facilities utilized should be sustained in secondary schools in Kaduna State, by school management in Nigeria for effective sport development;
5. Teaching facilities which are partially maintained in secondary schools in Kaduna State, Nigeria should be well maintained by Kaduna State government for optimum utilization;

6. Learning facilities that are fairly maintained in secondary schools in Kaduna State, Nigeria should be efficiently maintained by Kaduna State government for maximum utilization;
7. Convenience facilities which are fairly maintained in secondary schools in Kaduna State, Nigeria should be well maintained by Kaduna State government through effective and efficient students and staff welfare;
8. Sports and recreation facilities are moderately maintained in secondary schools in Kaduna State, Nigeria should be well maintained by Kaduna State government for effective sport growth and development.

5.6 Suggestions for Further Studies

This study is by all means not exhaustive, further studies should be carried out on:

1. The assessment of teachers' and students' attitudes on the utilization and maintenance of facilities in secondary schools in north-western Nigeria.
2. Assessment on the problems of facilities maintenance and utilization in secondary schools in Kaduna state. Nigeria.

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**A Questionnaire on
Assessment of Teachers' and Students' Attitudes on Utilization and Maintenance of
Facilities in Secondary Schools in Kaduna State. Nigeria**

Department of Educational Foundations and Curriculum,
Faculty of Education, Ahmadu Bello University, Zaria.
Kaduna State.

Request Letter

Dear Sir/Ma,

I am a Masters student of the above named addressed. This questionnaire is for the purpose of educational research. The questionnaire was designed to obtain Information on the Assessment of Teachers' and Students' Attitudes on Utilization and Maintenance of Facilities in Secondary Schools in Kaduna State. Nigeria. The information to be provided shall be treated with strict confidence and shall be used for the purpose of research only. I shall be very grateful for prompt and honest response to the questionnaire.

Yours Sincerely

Bawa, Najimuddin Aliyu

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SECTION A: PERSONAL DATA

1. **DESIGNATION :**(a) Principals. () . (b)Teachers. () (c) Students. ()
2. **GENDER:** (a) Male. () (b) Female. ()
3. **AGE:** (a) 15-24. () (b) 23-33. () (c) 34 and Above. ()
4. **MARITAL STATUS:** (a) Married. () (b) Single. ()

SECTION B: Questions have optioned as follows: Strongly agreed, Agreed, Undecided, Strongly disagreed and Disagreed, Please tick your optioned answer.

Opinion of Respondents on Utilization of Teaching Facilities in Secondary Schools in Kaduna State. Nigeria

S/N	Item statement	SA	A	U	D	SD
1	classroom adequately utilized					
2	chalk board adequately utilized					
3	Laboratory adequately utilized					
4	Chairs adequately utilized					
6	Public Address system adequately utilized					
5	Tables adequately utilized					
7	flip charts adequately utilized					
8	Models adequately utilized					
9	Specimens adequately utilized					
10	Workshops adequately utilized					
	Section C: Utilization Of Learning Facilities In Secondary Schools	SA	A	U	D	SD
11	Computers adequately utilized					
12	Library adequately utilized					

13	Internet/ICT adequately utilized					
14	Microscope adequately utilized					
15	Projectors utilized					
16	Video CD player utilized					
17	Audio CD player utilized					
18	Textbooks adequately utilized					
19	Stationeries adequately utilized					
20	Exercise books well and adequately utilized					
	Section D: Utilization Of Convenience Facilities In Secondary Schools	SA	A	U	D	SD
21	Toilets well utilized					
22	Dormitories adequately utilized					
23	Cafeteria adequately utilized					
24	Stores well utilized					
25	School plant personal well utilized					
26	Staff residential quarters adequately utilized					
27	Public lavatory adequately utilized					
28	Toilets facilities adequately utilized					
29	Catering facilities adequately utilized					
30	Water system adequately utilized					
	Section E: Utilization Of Sport/recreational Facilities In Secondary Schools	SA	A	U	D	SD
31	Football pitch adequately utilized					

32	Football equipment/gadget well utilized					
33	Sport/game transport facilities utilized					
34	Athletic facilities well utilized					
35	Out – doors facilities well utilized					
36	In – doors facilities adequately utilized					
37	Volleyball facilities well utilized					
38	Basketball facilities well utilized					
39	Handball facilities well utilized					
40	Table – tennis facilities well utilized					
	Section F: Maintenance Of Teaching Facilities In Secondary Schools	SA	A	U	D	SD
41	classroom adequately maintained					
42	chalk board adequately maintained					
43	Laboratory adequately maintained					
44	Chairs adequately maintained					
45	Tables adequately maintained					
46	Public Address system adequately maintained					
47	flip charts adequately maintained					
48	Models adequately maintained					
49	Specimens adequately maintained					

50	Workshops adequately maintained					
	Section G: Maintenance Of learning Facilities In Secondary Schools	SA	A	U	D	SD
51	Computers adequately maintained					
52	Library adequately maintained					
53	Internet/ICT adequately maintained					
54	Microscope adequately maintained					
55	Projectors maintained					
56	Video CD player maintained					
57	Audio CD player maintained					
58	Textbooks adequately maintained					
59	Stationeries adequately maintained					
60	Exercise books well and adequately maintained					
	Section H: Maintenance Of Convenience Facilities In Secondary Schools	SA	A	U	D	SD
61	Toilets well maintained					
62	Dormitones adequately maintained					
63	Cafeteria adequately maintained					
64	Stores well maintained					
65	School plant personal well maintained					
66	Staff residential quarters adequately maintained					

67	Public lavatory adequately maintained					
68	Toilets facilities adequately maintained					
69	Catering facilities adequately maintained					
70	Water system well maintained					

	Section I: Maintenance Of Sport/Recreational Facilities In Secondary Schools	SA	A	U	D	SD
71	Football pitch adequately Maintained					
72	Football equipment/gadget well maintained					
73	Sport/game transport facilities maintained					
74	Athletic facilities well maintained					
75	Out – doors facilities well maintained					
76	In – doors facilities adequately maintained					
77	Volleyball facilities well maintained					
78	Basketball facilities well maintained					
79	Handball facilities well maintained					
80	Table – tennis facilities well maintained					