ASSESSMENT OF PROVISION AND MAINTENANCE OF SCHOOL PLANT IN COLLEGES OF EDUCATION IN NORTH-WEST GEO-POLITICAL ZONE, NIGERIA (2010-2014)

BY

Adamu MOHAMMAD, B.Ed., M.Ed M P A (UDUS)
Ph.D/EDUC/468/2011-12

A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA IN PATIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A DOCTOR OF PHILOSOPHY IN EDUCATIONAL ADMINISTRATION AND PLANNING

DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM,
FACULTY OF EDUCATION,
AHMADU BELLO UNIVERSITY,
ZARIA

AUGUST, 2016

DECLARATION

I hereby declare that this Thesis entitled, Assessment of Provision and Maintenance of Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria (2010-2014)'' has been carried out by me in the Department of Educational Foundations and Curriculum. The information derived from the literature has been dully acknowledged in the text and a list of references provided. No part of this Thesis was previously presented for another Degree at this or any other Institutions.

-- ----------

Adamu Mohammad Date

CERTIFICATION

This Thesis Entitled ASSESSMENT OF PROVISION AND MAINTENANCE OF FACILITIES IN COLLEGES OF EDUCATION IN NORTH-WEST GEO-POLITICAL ZONE, NIGERIA by ADAMU MOHAMMAD meets the regulations governing the award of degree of Doctor of Philosophy (PhD) in Educational Administration and planning of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation

Prof. B. A. Maina — Date
Chairman, Supervisory Committee

DR. E.I. Makoju — Date
Member, Supervisory Committee

DR. A. A. IGUNNU — Date
Member, Supervisory Committee

Prof. Maina B. A. — Date
Head of Department of Foundation
And Curriculum

Prof. K. Bala. — Date
Dean, School of Postgraduate Studies

DEDICATION

This research work is dedicated to my late father, Mal. Sulaiman Ibrahim Bangu who passed away on the 28th December, 2014 and mother, Aisha and her late elder sister, Mamam Sani, who was the brain behind my education. It is equally dedicated to my loving wife, Rukayyah and my children, Khairatu, Summaya, Muhammadu Zayyanu, Lukman, Maryam, Abdulkareem, Aisha (Ummi), Abdulhakeem and Saudatu to serve as a source of inspiration for them.

ACKNOWLEDGEMENTS

I wish to appreciate the Almighty Allah, the creator of heaven and earth and all there in for giving me the opportunity to carry out this research. I equally thank Him for the good health given to me to carry out this study to the end. Equally, I appreciate the patience and attention given to me by my supervisors Prof .B.A. Maina Dr. E.I Makoju, Dr. M. O. Dare, (Late) and Dr. A.A.Igunnu .This work would not have been completed without their thorough supervision and guidance. I also appreciate the efforts of my lecturers Prof. R. B. Bako, Dr. M. Musa, Dr. H O. Yusuf and Dr A. A. Dada whose words of encouragement and experience have led to the completion of this study.

I humbly, appreciate my lecturers and brother Prof. M. A. Wasagu (former Provost) F C E Katsina) who inspired me to pursue this programmed and gave all the words of encouragement and support (moral, spiritual and financial) I am also greateful to my lecturer Dr A. Muhammad of FC E Zaria and Dr. S. D. Manga. May the Almighty Allah continue to strengthen our relationship, for this, I say I am proud of you Sirs. I equally appreciate my employer, Kebbi State University of Science and Technology, Aliero under the leaderships of Prof. A. A. Zuru, for the permission to further my studies. To my younger brother, I. S. Babangida and the rest of our family members I say a big thank you to all. I equally appreciate the contribution of my research assistants, Mal, .S. Shangel of FC E (T) Gusau,Mal. S. Mafara of COE Maru, Dr Abdulhadi of Saadatu Rimi COE Kano, Dr. L. Umar and the typist Mal. U. M. Katsina, who typed the work and the data analyst (who analyzed the data). Mention must also be made to my former Vice- Chancellor Prof. A.A. Zuru and the current Acting Vice-Chancellor and research guidance Prof. B. S. Malami, as well as my colleagues at work and PhD course mates. My sincere gratitude also goes to all the provosts of the sampled Colleges of Education who assisted me with the vital data needed for the research.

I am also indebted to my friends and relations among whom are Alhaji Shehu Kudi Kasa Malam Usmanu Bangu (Kawo), Prof. M. K. Abubakar, Alhaji Aliyu Bangu, Sani Musa Agege, Dr. Yakubu Yahaya,Mrs Mansurat Obadiya, Mal. Alhaji Maimaro Tilli, Dr. Sahabi Sulaiman Manga, and Dr. Yusuf Tanko Sununu.Alsoworthy of appreciation are Alhaji Mamman Mu'azu, Dr. Aliyu Mu'azu, Sarki Malamai Umaru Balarabe, Dr. Lawal Umaru Gade, Mal. Aliyu Sani Masanawa, Mal Muhammadu Attahiru Kaoje, Mal. Haruna Danmuba Aliero and Mal. Bala Millionaire for their support

My acknowledgements will not be complete if I fail to recognize the contribution of my colleagues at work. The moral and spiritual support from them really strengthened, encouraged and energized me .These people include all the principal officers, Deputy Registrar of Kebbi State University of Science and Technology Aliero, Malam Lawali Sulaiman Bangu, Maiyalo Store, Malam Sani Abubakar Fakai, Mohammad Dago, all the staff of student affairs division, all students and those contributed directly or indirectly to the completion of this programme. To you, I say God bless you all. Ameen

ABSTRACT

This study on the 'Assessment of Provision and Maintenance of School Plant in Colleges of Education in North—West Geo-Political Zone, Nigeria,(2010—2014) investigated on the Provision and Maintenance of Facilities, with particular reference to: Infrastructural facilities; Teaching facilities; Learning facilities; Welfare facilities; Recreation and Games facilities. To carry out the study, 10 objectives were set among which are to:(i) assess the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the provision of infrastructural facilities in colleges of education in North-West Geo-political Zone, Nigeria;(ii) examine the opinions of management staff, teaching staff, senior non teaching staff, union leaders and students' representatives on the maintenance of infrastructural facilities in Colleges of Education in North-West Geo-political Zone, Nigeria (iii) assess the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the provision of teaching facilities in colleges of education in North-West Geo-political Zone, Nigeria (iv) ascertain the opinions of management staff, teaching staff, senior non teaching staff, union leaders and students' representatives on the maintenance of teaching facilities in Colleges of Education in North-West Geo-political Zone, Nigeria etc. In this regard, 10 research questions were asked in order to guide the study. i.e.(a) what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the status of provision of infrastructural facilities in Colleges of Education in North-West Geo-political Zone, Nigeria?;(b) what are the opinion of management staff, teaching staff, senior non teaching staff, union leaders and students' representative on the level of maintenance of infrastructural facilities in College of Education in North-West Geo-political Zone, Nigeria?. Ten null hypotheses were formulated for the study. Descriptive survey design was adopted and used to cover all the seven states that constituted North-West Geo-Political Zone. A total population of 4,811 made of 72 management staff, 4,475 teaching staff, 120 senior non teaching staff, union leaders and 144 students' representative were for the study. A sample of 24 management staff, 267 teaching staff, 36 senior non teaching staff union leaders and 48students' representatives was arrived at, using Roscoe making the total sample size to 375. After the distribution of the questionnaire a total of 370 samples comprising 24 management staff, 262 teaching staff, 36 senior non teaching staff, union leaders and 48 students' representatives were retrieved. A close ended questionnaire (five point likert scale) was used as the instrument for data collection. The instrument was validated by my supervisors and other experts' Pilot study was conducted to determine the reliability coefficient of alpha level of .846 and standard alpha level of 0.876 was obtained. This, therefore, confirms the reliability of the instrument used for the conduct of the research. The data were analyzed using descriptive statistics and One Way Analysis of Variance (ANOVA), using 0.05 levels of significances. The analysis indicated that all the 10 null hypotheses were retained. Recommendations include electricity, tap water, and standby generators should be provided among others Further suggestions for the studies such as ,. Assessment of Provision and Maintenance of teaching and learning facilities in Polytechnics' in North-West Geo-Political Zone Assessment of provision and maintenance of welfare and recreational facilities in Colleges of Education in North-Central Geo-Political Zone, Nigeria be carried out

TABLE OF CONTENTS

Title page		i
Declaration		ii
Certification		iii
Dedication		iv
Acknowledgements		v
List of Abstract		vi
Table of Contents		vii
List of Table		xiv
List of Abbreviation		xvi
Operational Definition of Term		xvii

CHAPTER ONE INTRODUCTION

1.1	Background to the Study	1
1.2	Statement of the Problem	6
1.3	Objectives of the Study	8
1.4	Research Questions	9
1.5	Research Hypotheses	11

1.6 Basic Assumptions 13

1.7 Significance of the Study 14

1.8 Scope of the Study 15

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Introduction 16

2.2 Conceptual Framework 16

2.2.2 Concept of School Plant 16

2.2.3 Concept of Infrastructural Facilities in Schools 18

2.2.4 Concept of Facilities Management 18

2.2.5 Concept of Teaching 19

2.2.6 Concept of Instructional/Learning Facilities 22

2.2.7 Concept of Welfare Facilities 25

2.2.8 Concept of Recreation 27

2.3 Theoretical Framework 29

2.3.1 Environmental Theory its relationship to physical facilities planning and management 33

2.3.2 Physical Environment theory (peripheral) 33

2.3.3 The relevance of Environmental Theory to Educational facilities Management 35

2.4 Physical Facilities/Fixed Assets 36

2.4.1 School Building 38

2.4.2 Structural and Mechanical Features 39

2.4.3 School Building Safety 40

2.4.4 Administration of Building (Support Space) 41

2.4.5 Provision and Maintenance of Furniture Needed in School 42

2.4.6 Maintenance of Facilities in College of Education in Nigerian 43

2.4.7 Maintenance of Plants in Colleges of Education in Nigerian 50

2.4.8 Maintenance of the Necessary Facilities in School 54

2.4.9 Availability and Maintenance of Equipment in Schools 54

2.4.10 Promoting School Plant Maintenance Culture 56

2.4.11 Modern Strategies of School Plant Maintenance 58

2.4.12 The Role of Provosts in Planning and Maintaining College Infrastructure 62

2.4.13 The Roles of Lecturers in Maintaining Infrastructure 64

2.4.14 The Role of Students in Maintaining School Infrastructure 64

2.5 Time 66

2.5.1 Adequate Provision of Instructional Materials and Administration of Examination 66

2.5.2 Provision and Maintenance of Teaching Facilities in School 67

2.5.3 Uses of Teaching Facilities 70

2.5.4 Selection and Production of Teaching Facilities 72

2.5.5 Steps in the Production of Teaching Facilities 73

2.5.6 Adequacy and Maintenance of Teaching Facilities Production and Storage 74

2.5.7 Provision and Maintenance of Classrooms/Lecture Theatres 75

2.5.8 Provision and Maintenance of Laboratory/Workshop Infrastructure 77

2.5.9 Provision and Maintenance of Library Infrastructure 78

2.6 Adequacy of Learning Space 79

2.6.1 Special Learning Facilities 79

2.6.2 The Use of Books in School 80

2.6.3 Provision and Maintenance of Information and Communication Technology (ICT in Schools 81

2.6.4 Problems Militating against Provision and Maintenance of Information and Communication and Technology 85

2.7 Staff Welfare Service 86

2.7.1 Students Welfare Service 88

2.8 Provision and Maintenance of Recreation and Games Facilities 90

2.8.1 Classification of Recreation Activities 91

2.8.2 Types of Recreation facilities and Space Allocation by NUC Standard Guides 92

2.8.3 Planning and Maintenance of Sport Facilities in Schools 94

2.8.4 Provision and Maintenance of Sport Facilities 95

2.8.5 Sport Facility Maintenance and Operation in School 96

2.9 How to Improve Facilities through Effective Administration and Planning 96

2.10 Empirical Studies 97

2.11 Summary 107

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction 111

3.2 Research Design 111

3.3 Population of the Study 113

3.4 Sample and Sampling Techniques 114

3.5 Instrumentation 117

3.6 Validity of the Instrument 118

3.7 Pilot Study 119

3.8 Reliability of the Instrument 120

3.9 Procedure for Data Collection 120

3.10 Method of Data Analysis 121

CHAPTER FOUR: PRESENTATION, ANALYSIS AND DISCUSSION OF DATA

4.1 Introduction 123

4.2 Discussion of the Bio-Data of the Respondents 124

4.3 Analyses of Respondents' Demographic Variable 126

4.31 Opinions of respondents on the provision of infrastructural facilities 126

4.4 Hypotheses Testing 162

4.5 Summary of Hypotheses Testing 173

4.6 Summary of the Major Findings 174

4.7 Discussions of the Findings 175

4.8 Comparison between Urban and Rural Colleges of Education 183

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction 184

5.2 Summary 184

5.3 Conclusions 186

5.4 Recommendations 187

5.5 Suggestions for Further Studies 188

5.6 Contribution to Knowledge 189

References 190

List of appendices

LIST OF TABLES

Table 3.1	Distribution of the Population of Respondents to the Study	114
Table 3.2	Distribution of Respondents and Sample Sizes	116
Table 3.3	Distribution of Questionnaire to the Sampled Frequency and Percentage	121
Table 4.1	Number of Respondents in the Sampled Colleges	124
Table 4.2	Discussion of the Bio-Data of Respondents	125
Table 4.3	Opinions of Respondents on Provision of Infrastructural Facilities	127
Table 4.4	Opinions of Respondents on Maintenances of Infrastructural Facilities in Colleges of Education in North West Geo-political Zone	130
Table 4.5	Opinions of Respondents on the Provision of Teaching Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria	133
Table 4.6	Opinions of Respondents on Maintenance of Teaching Facilities in Colleges of Education in North West Geo-political Zone Nigeria	137
Table 4.7	Opinions of Respondents on Provision of Learning Facilities in Colleges of Education in North- West Geo-political Zone, Nigeria	141
Table 4.8	Opinions of Respondents on the Maintenances of Learning Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria	145
Table 4.9	Opinions of Respondents on Provision of Welfare Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria	148
Table4.10	Opinions of Respondents on the Maintenance of Welfare Facilities in Colleges of Education in North-West- Geo-Political Zone, Nigeria	152

Table 4.11 Opinions of Respondents on Provision of Recreation and Game Facilities in Colleges of Education in North –West –Geo-Political Zone, Nigeria 157

Table 4.12 Opinions of Respondents on Maintenance of Recreation and Game Facilities in Colleges of Education in North – West Geo-Political Zone, Nigeria 160

Table 4.13 Summary of One Way Analysis of Variance (ANOVA) on Provision of Infrastructure Facilities in College of Education in North – West Geo-Political Zone, Nigeria 163

Table 4.14 Summary of One Way Analysis of Variance (ANOVA) on the Maintenances of Infrastructural Facilities in College of Education in North-West Geo- Political Zone Nigeria 164

Table4.15: Summary of One Way Analysis of Variance (ANOVA) on the Provision of Teaching Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria 165

Table4.16 Summary of One-Way Analysis of Variance (ANOVA) on the Level of Maintenance of Teaching Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria 166

Table4.17 Summary of One-Way Analysis of Variance (ANOVA) on Provision of Learning Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria 167

Table4.18 Summary of One-Way Analysis of Variance (ANOVA) on Maintenance of Learning Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria 168

Table4.19 Summary of One-Way Analysis of Variance (ANOVA) on the Extent of Provision of Welfare Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria 169

Table4.20 Summary of One-Way Analysis Variance (ANOVA) on the Adequacy of Maintenance of Welfare Facilities in Colleges of Education in North-West Geo-Political Zone 170

Table 4.21 Summary of One- Way Analysis of Variance (ANOVA)on the Adequacy of Provision of Recreation and Games Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria 171

Table 4.22 Summary of One-Way Analysis of Variance (ANOVA) on the Level of Maintenance of Recreation and Games Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria 172

Table 4.23 Summary of the 10 Null Hypotheses Tested for the study 173

LIST OFABBREVIATIONS

AACOE:- Adamu Augie College of Education

CFM: Centre for Facilities Management

COE:- Colleges of Education

COEASU:- College of Education Academic Staff Union

IFMA: International Facilities Management Association

IKCOE:- Isah Kaita College of Education

NCCE:- National Commission for Colleges of Education

NUC:- National Universities Commission

SSUCOEN:- Senior Staff Union of Colleges of Education in Nigeria

OPERATIONAL DEFINITION OF TERMS

School Plant: are those physical facilities or resources put in place in the school system which are used for the benefit of teaching and learning processes

Provision of Facilities: is making the facilities available for the effectiveness of teaching and learning, such facilities as classrooms, lecture halls, laboratories, workshops, library, equipment, electricity, water, visual and audio—visual etc

Maintenance of Facilities: is concerned with keeping grounds, buildings and equipment in their original condition of completeness or efficiency

Infrastructural Facilities: are those physical resources such as buildings, transportation, landscaping, equipment and instructional materials

Teaching Facilities: are materials employed by teachers to improve and enhance the effectiveness of instruction

Learning Facilities: are materials that teachers would used to aid learning such as text books, library materials, laboratories/workshops materials etc.

Welfare Facilities: Essential services that motivate workers such as prompt payment of basic allowance, good health delivery centers, staff accommodation, etc

Recreational Facilities: are those materials used such as long jump, hammer throwing circle multipurpose field etc

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Nigeria is faced with a lot of crises in her educational industry. The crises are attributed to inadequate funding, students' population explosion, scarcity and under-utilization of the available resources, inadequate infrastructural facilities that are needed for effective teaching and learning processes and for the achievement of educational goals. School managers should make use of the various opportunities that are in the schools to provide conducive learning environment for the students in the schools. Resource that Managers of Colleges of Education can make use of in schools to include: vegetation resources like trees, grasses, agricultural resources, and community resources like drivers, artisans to enhance the school plant. The school managers also need to complement government efforts in the provision of essential infrastructural facilities that could be utilized for effective achievement of goals in Nigerian educational system. Bello (2011) observed that, infrastructural facilities are crucial for students' academic performance and lectures' job effectiveness. Bello further suggested the need for provision of infrastructural facilities like buildings, vehicle, landscaping, equipment, and instructional materials, to aid lecturers' job performance and student's academic performance in educational institutions in Nigeria.

Oyedeji (2012) described the total numbers of the infrastructural facilities provided in the schools as potent indicator for measuring the quality and standard of education given by any level of educational system. To Oyedeji, poor and inadequate infrastructural facilities have negative significant impact on the students' academic performance. Infrastructural facilities are

those physical resources put in place in the schools system which are used for the benefit of teaching learning processes and for effective academic goal achievement.

Ahmed, (2010 and Ogundele (2001) were of the opinion that, the most potent index for assessing and evaluating the standard and quality of the schools is through a close examination of the available infrastructural facilities provided for effective teaching-learning processes in the school. It should also be noted that the government, education planners, teachers, students, the private sectors, international agencies, and well meaning Nigerians recognized the importance of infrastructural facilities to the educational goal achievement. Both the government and non-governmental organizations and meaningful individuals however, committed huge amount of funds for developing the necessary infrastructural facilities in the interest of academic goals achievement in Nigerian tertiary institutions. However, the available infrastructural facilities are grossly inadequate for both the staff and students' use, in spite of all the efforts of the government and nongovernment organizations, international agencies, philanthropists and well meaning Nigerians to develop the necessary infrastructural facilities for Nigerian educational system .Ogundele (2001) observed that, most of the education managers often complain of inadequate teaching materials and equipment, transport facilities, buildings, landscaping, and recreational centers. They complained of destruction and vandalisation of the existing infrastructural facilities by the students. The reasons for this situation, according to Ahmed (2010) was that many students' crises were attributed to poor and inadequate maintenance culture of the available facilities, ,poor welfare services and lack of instructional facilities for effective teaching and learning processes in the schools. Most of the damages caused to the existing facilities made the available facilities to be inadequate for both the staff and students use.

The quality of education delivered by teachers and the academic achievement of students of any college of education depend on several factors of which facilities are paramount. Colleges of Education facilities are materials resources that enhance teaching and learning process thereby making the process meaningful and purposeful. Colleges of Education facilities can be defined as the entire college plant which college administrators, academic staff, non-academic staff and student's utilize for the smooth and efficient maintenance of any educational institutions, for the main objective of bringing about effective and purposeful teaching and learning experience. College facilities serve as pillars of support for effective teaching and learning Umar (1998) sees college facilities to include permanent and semi-permanent structures such as machinery, laboratory equipment, the blackboard, teachers tools, e-book library, furniture and library still pictures, chairs, tables, projectors, computers, games, sporting facilities, lectures halls, accommodations, and other equipment as well as consumables.

Good quality and standard of an institution depends largely on the provision and maintenance of educational facilities, as educational curriculum cannot be sound and well operated with poor and badly managed college facilities. These facilities include classrooms or lecture halls, laboratories, workshops, libraries equipment, consumables, electricity, water, visual and audio-visual aids, desks, chairs, play ground, storage space and toilets. In Nigeria, enrolment in colleges of education has continued to increase without a corresponding increase in funding of education for proper provision and maintenance of facilities.

College plant maintenance as any work carried out in any component of the plant with a view to keep it in good working condition. The quality and durability of servicing, repairs and the rate at which the needs and requirement change, college facilities maintenance involves

keeping records of the facilities, supervising and planning for them motivating students and staff to participate in their maintenance of the facilities.

Students who were taught in modernized building scored consistently higher across a range of standardized test. Adeboyeje (2000) reported that college with well coordinated plant planning and maintenance practices recorded better student's performance. Aliyu (2012) reported that students in newer and adequate school facilities, outperformed students in older school with inadequate facilities. Good conditions of college physical environment could enhance students' school attendance involvement in academic activities as well as good academic performance. The existence and proper management of organization rests on the provision of human and material resources. The provision of resource is never the end for goal attainment; this must be marched with maintenance and day to day upgrading. Provision of resources indicates strength and productivity of the college. In other words college with large resources all things being equal will be more productive than, the one with low resource (both human and material)

In a school system, success can only be recorded in a situation whereby resources are provided in commensurate measures with student's population. A school that has available facilities, teaching and learning shall be easy for both teachers and students. At the end, the school's result shall be good, which is the aim of any educational system. In the aspect of maintenance for a successful school, maintenance implies people usage of equipment and their day- to- day upgrade. It also includes avoidance of overwork and inadequate service in the case of machines.

In school, maintenance of facilities does not only stop at desirable benefit by staff and students but also on the life-span of the equipment, An equipment or facilities that are well maintained

shall take more time being used than those not maintained. Facilities such as building offices, hostels, stores, staff quarters to mention but a few, can have long life-span when not over worked and not misused.

Maintenance and provision of facilities could help in hazard reduction among students and staff in schools. Cases have shown students bec1oming unhealthy due to inadequate toilet provision and maintenance. Therefore, one can claim that good maintenance of facilities could improve money saving of the college. Many scholars, researchers, administrators, and educational planners, have confirmed that facilities in Nigerian colleges are in adequate and the few provided are over utilized due to the astronomical increase in school enrolment. Similarly, Owuamanam (2005) noted that inadequacy of infrastructural facilities and lack of maintenance for the provided facilities was the major problems facing our colleges of education in North-West Geo-political Zone and in Nigeria at large. The facilities in colleges of education are grossly inadequate to match the student population and the provision and maintenance of college facilities will enhance teaching and learning and improve academic performance of students. More also it will encourage staff to work tirelessness.

Researcher like Owoeye (2000) have long identified the importance of school facilities in teaching and learning while noting that inadequacy, deterioration and lack of maintenance of these facilities will spell doom for researcher 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 can constitute health hazard to students and staff that use the facilities and the even large amount of money invested on the school facilities can be wasted without maintenance.

The researcher observed that college's facilities in North-West Geo-political Zone were not properly maintained by college administrators and hence their life-span depreciated faster. The administrators appear to spend much time on instructional planning, curriculum development, personnel management and community relations claiming that the provision and maintenance of facilities is the sole preserves of the government. This research assessment of provision and maintenance of school plant in colleges of education in North- West Geo-political Zone, Nigeria with focus on infrastructural facilities, teaching and learning facilities, welfare facilities and recreation and games facilities.

1.2 Statement of the Problem

Almost all Colleges of Education are bedeviled with several problems or challenges. These problems range and cover all ramifications. One might say that these problems are the causes of inability of the colleges to achieve their goals and also compete in global scientific and technological advancements. A careful study or observation reveals to an observer, outdated equipment and dilapidated structures over stretched facilities and over use of gadgets and machines. All these factors could be related to issues such as underfunding, corruption, inadequate maintenance culture, polarization of education, nonchalant attitude to work, favoritisms, god fatherism and many more others beyond explanation. Arzika, (2000).

The primary objective of Colleges of Education is to provide high-level manpower that will man secondary and primary levels of our educational system of this country. One wonders and asks no question the deplorable nature of all our educational sectors in Nigeria. The answer is the power house is sick (education) as such all other sectors most without argument is affected in one way or the other.

In Colleges of Education today students are congested, some standing due to inadequate chairs and desks, others standing by the windows due to inadequate facilities and overpopulation in classes. This resulted to low academic performance among students, thereby resulting to examination malpractices, make teachers' friend female students and bribe collection from male students for passing examination. At the end of it all, after graduation students cannot defend their claimed certificate (Aliyu 2012). In addition, the areas of teaching facilities are also in acute shortage. Libraries are full of outdated books, ICT equipment in some schools are never available, electricity absent and no generating power plant for students to study at night. This trend pushed wealthy parents to take their wards abroad for better schooling. Sanusi (2011) lamented that Nigerians spent more than the budget of all Nigerian universities abroad on school fees, accommodation and flight ticket. This creates a situation where by class society is formed with a lot of tension which increases crime as a result of unemployment.

Other challenges or problems include inadequate hostel accommodation to students. Most schools cannot accommodate 50% of students. The case is also similar in the case of staff accommodation. This directly affects staff and students performance. Loan to staff for housing and vehicle are either low or not in existence at all. In case of colleges where students' hostels and staff quarters exist, the maintenance culture was poor. This poor maintenance results in spread of diseases and other illnesses. In the event of illness most clinics lack adequate drugs and specialists to attend to staff and students. This indicates the effect of inadequacies that exist in provision and maintenance of school plant, which depend on funding of education in Nigeria.

In view of the above, therefore this study from the opinion of management staff, teaching staff, senior non—teaching staff union leaders and student's representative assessed the provision and

maintenance of School Plant in Colleges of Education in North—West Geo-Political Zone, Nigeria

1.3 Objectives of the Study

The main objective of this study is the Assessment of Provision and Maintenance of School Plant in Colleges of Education in North-West Geo-political Zone of Nigeria.

The specific objectives of the study are to:

1. assess the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the adequacy of provision of infrastructural facilities in Colleges of Education in North West Geo-political Zone .Nigeria;
2. examine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the level of maintenance of infrastructural facilities in Colleges of Education in North- West Geo-political Zone , Nigeria;
3. determine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the adequacy of provision of teaching facilities in Colleges of Education in North- West Geo-political Zone, Nigeria;
4. identify the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the level of maintenance of teaching facilities in Colleges of Education in North-West Geo-political Zone , Nigeria;
5. assess the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the adequacy of provision of learning facilities in Colleges of Education in North-West Geo-political Zone , Nigeria;

6. examine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the level of maintenance of learning facilities in Colleges of Education in North-West Geo-political Zone , Nigeria;

   assess the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the adequacy of provision of welfare facilities in Colleges of Education in North-West Geo-political Zone , Nigeria;

7. examine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the level of maintenance of welfare facilities in Colleges of Education in North –West Geo-political Zone, Nigeria;

8. determine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the adequacy of provision of recreation and games facilities in Colleges of Education in North-West Geo-political Zone , Nigeria; and

9. examine the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the level of maintenance of recreation and games facilities in Colleges of Education in North –West Geo-political Zone, Nigeria

1.4 Research Questions

To carry out this study, the following research questions were raised:

1. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the extent of the adequacy of provision of infrastructural facilities in Colleges of Education in North West Geo-political Zone, Nigeria?

2. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the level of maintenance of infrastructural facilities in Colleges of Education in North- West Geo-political Zone, Nigeria?
3. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the adequacy of provision of teaching facilities in Colleges of Education in North- West Geo-political Zone, Nigeria?
4. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the level of maintenance of teaching facilities in Colleges of Education in North-West Geo-political Zone, Nigeria?
5. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the provision of learning facilities in colleges of education in North-west Geo-political Zone, Nigeria?
6. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels of maintenance of learning facilities in colleges of education in North West Geo-political Zone, Nigeria
7. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the extent of provision of welfare facilities in Colleges of Education in North-West Geo-political Zone, Nigeria?
8. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels of maintenance of welfare facilities in colleges of education in North –West Geo-political Zone, Nigeria

9. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the extent of provision of recreation and games facilities in colleges of education in North –West Geo-political Zone, Nigeria

10. what are the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the level of maintenance of welfare facilities in colleges of education in North –West Geo-political Zone, Nigeria?

1.5 Hypotheses

The following null hypotheses were formulated based on the objectives of the study:

$H0_1$. There is no significant difference in the opinions of management staff, teaching staff, Senior non teaching staff union leaders and students' representatives on the extent of provision of infrastructural facilities in Colleges of Education in North West Geo political Zone, Nigeria

$H0_2$. The is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels of maintenance of infrastructural facilities in Colleges of Education in North- West Geo-political Zone, Nigeria

$H0_3$ There is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the extent of provision of teaching facilities in Colleges of Education in North- West Geo-political Zone, Nigeria

$H0_4$ There is no significant difference in the opinions of management staff, teaching staff, Senior non teaching staff union leaders and students' representatives on the levels

of maintenance of teaching facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria

HO_5 There is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the extent of provision of learning facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria

$H0_6$ There is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels of maintenance of learning facilities in colleges of education in North-West Geo-Political Zone, Nigeria

HO_7. There is no significant difference in the opinions of management staff, teaching staff, Senior non teaching staff union leaders and students' representatives on the extent of provision, welfare facilities in Colleges of Education in North Zone, Nigeria

$H0_8$. There is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels of maintenance of welfare facilities in colleges of education in North-West Geo--political Zone, Nigeria

$H0_9$. There is no significant difference in the opinions of management staff, teaching staff, Senior non teaching staff union leaders and students' representatives on the Adequacy of provision of recreation and games facilities in colleges of education in North-West Geo political Zone, Nigeria

$H0_{10}$ There is no significant difference in the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the levels

of maintenance recreation and games facilities in colleges of education in North-West Geo-political Zone, Nigeria

1.5 Basic Assumptions

This study is based on the following assumptions:

1. There is inadequate provision and maintenance of facilities in colleges of education in North-West Geopolitical Zone, Nigeria
2. That infrastructural facilities are at deplorable sight due to lack of maintenance culture
3. That if properly provided infrastructural facilities such as classrooms, lecture theater, laboratory, computer facilities, information and communication technology centers, hostel, recreational centre, furniture's, electricity and water supply will be adequate in the colleges of education in North-West Geo-political Zone, Nigeria
4. If there is adequate teaching and learning facilities, students academic performance will be higher in colleges of education in North-West Geo-political Zone, Nigeria
5. That the provision and maintenance of welfare facilities promote high performance of students and staff in college of education in North-West Geo-political Zone, Nigeria
6. That provision and maintenance of recreation and games facilities promote friendly relationship among staff and students in colleges education in North-West Geo-political Zone , Nigeria

7. That the available facilities in the state and federal colleges of education are over stretched due to the population explosion

8. That if there is good organizational climate recreation and games facilities will be effectively maintained in colleges education in North-West Geo-political Zone , Nigeria

1.6 Significance of the Study

The study examined the present conditions of provision and maintenance of school plant in colleges of education in North- West Geo-political Zone, Nigeria. The findings of the study will assist administrators and educational planners in their allocation of funds and resources to colleges of education. The findings will also help management staff to be aware of one of the important variables that can influence their administrative duties as well as students, performance.

It is also hoped that this research work would contribute to the existing body of knowledge by bringing new ideas and challenges to educational management and administration. It will benefit the college managers to identify their available facilities and plan on how to maintain them.

The study would help both staff and students to acknowledge the importance of provision and maintenance of facilities in creating an effective teaching and learning environment. The findings would also help staff to develop meaningful strategies and methods, towards operation and maintenance of college facilities to enhance effective and efficient teaching and learning.

The research findings would further help both staff and students appreciate the need to encourage hard work and learn better through adequate utilization of their potentials and the few resources available. The study would help to appraise the past and present practices of

procurement and maintenance of facilities in colleges of education in North –West Geo-political Zone, Nigeria, with a view to highlighting some of the crucial issues and problems connected there with.

1.7 Scope and Delimitation of the Study

The main task of this study was to assess the extent to which assessment of provision and maintenance of school plant had influenced educational advancement in Colleges of Education in the North-west Geo-political Zone, Nigeria. This is basically a study of the opinion of individuals about provision and maintenance of facilities. It strived to examine impact of facilities and the extent to which respondents differ in their responses on the assessment of provision and maintenance of school plant for educational advancement as a result of their adequacies, in the states and status of the colleges i.e.(Federal and State Colleges). The study was conducted in North-West Geo-political Zone, Nigeria, covering seven states (Kaduna, Kano and Zamfara. The study centered on the Colleges of Education,(CO E) as the foundation of Teacher Education programme in North-West Zone and Nigeria in general . It covered Colleges of Education in the Zone, involved six Colleges out of the 12 Colleges. The population of the study was restricted to the major stakeholders (Management staff, Teaching staff, senior non-teaching staff union leaders and Students representatives) who are directly involved in the affairs of Colleges of Education

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This study is aimed at carrying out a research on "Assessment of provision and maintenance of school plant in Colleges of Education in North West Geopolitical Zone, Nigeria". The chapter focuses on review of literature that relates to the study. This is to establish a theoretical base for the study. Hence, the following sub headings were reviewed:

2.2 Conceptual Framework

The researcher in his effort to ease the readers and beneficiaries understand the work very well reviewed the concepts of School Plant, Infrastructural Facilities in School, Facilities Management, Teaching, and Instructional/Learning Facilities among other concepts.

2.2.1 Concept of School Plant

School plant is described as the site, the buildings, the equipment and all the essential structures, permanent and semi-permanent as well as such machines and laboratory equipment, the blackboard/chalkboard needed for effective teaching and learning. Castaldi (1994) was of the view that in the beginning there was no educational facilities; that there were no classrooms and no desks for learners to sit or write on. Research showed that Plato and Aristotle met with students to exchange and discuss ideas in the open air and in any convenient location perhaps in the shade of a temple or wall. Nowadays, these school plants are seen in the school compound for effective teaching and learning but how they are being managed is a different ball game. This becomes a challenge to the school mangers as a whole to ensure that they are well maintained. Enaohwo and Eferakeya (1989) defined school plant as the entire physical infrastructural

facilities provided in the school for the purpose of educating the child. The writer added that when these aspects of school plant is lacking the result will be poor learning and poor representation in all spheres of life. Ojelede (1998) stated that school plant comprises the school site and all the structures that have been put in place to aid effective teaching and learning in the school system. Furthermore, Yusuf (2008) defined school plant as space interpretation of the school Curriculum. It will be impossible for the curriculum to be implemented if the physical facilities required for teaching and learning are not available. Absence of school plant makes teaching ineffective and desired learning will not take place. It becomes necessary to ensure that such plant is properly planned and maintained to facilitate the effectiveness of school system.

The writer observed during Teaching Practice supervision that in some state secondary schools the classrooms are overcrowded with children and, of course, poor teaching and learning manifests itself. Teachers could not be able to move around to give the learners individual help where needed because there is no space in between the benches in the classrooms. In collaboration, Ajayi (2007) and Yusuf (2008) maintained that school plants comprise the machinery which in turn includes machines and tools used in the workshop, in addition to duplicating machines. They also pointed out that school site, which is the landscape on which the schools permanent and non-permanent structures are built, are part of school plant. They also included buildings, equipment, furniture, vehicles of various types, electrical fittings, books, water supply infrastructure, and accessories like playgrounds, lawns, parks and farm, as part of school plant. School plant is all embracing in the fact that it comprises every single item starting from the gate of the school to the walls covering the school compound. This should be drawn into the ears of the school children who did not know that the school ground and everything in it belong to them and they should take good care of them.

2.2.2 Concept of Infrastructural Facilities in School

The school infrastructural facilities are also referred to as school educational facilities. There are varieties of infrastructural facilities around that can be used to make the meaning more important and interesting. School infrastructure aid effective teaching and learning in the school such as sitting, building and provision available physical equipment like laboratories, workshops library,

2.2.3 Concept of Facilities management

Facilities management, according to the Centre for Facilities Management,(2010) is the process by which an organization delivers and sustains support services in a quality environment to meet strategic needs". It may also be defined as "the process by which an organization ensures that its buildings, systems and services support core operations and processes as well as contribute to achieving its strategic objectives in changing conditions (Keith,2009). As buildings become more complex and house more technology, user expectations rise and the pressure on them to perform increases. Increasing legislation to ensure health, safety and welfare as well as to protect the environment has added new responsibilities on companies to manage the workplace.

Center for Facilities Management, (CFM, 2010) emphasizes the need to focus resources on meeting user needs to support the key role of people in organizations and strives to continuously improve quality, reduce risks and ensure value for money. CFM (2010), scope of the discipline covers all aspects of property, space, environmental control, health and safety, and support services, and requires that appropriate control points are established in the organization. The facility plan will set out these policies and identifies corporate guideline and standards. The plan will describe the organization, structure, procedures and responsibilities of all stakeholders.

Facilities management lay out an organization's response to vital issues such as space allocation and charging, environmental control and protection, direct and contract employment. Facilities management is relevant to all sectors in developed and developing countries".

In the International Facilities Management Association (IFMA, 2009) report, facilities management is described as the integration process which involves the practice of coordinating maintaining and developing all physical, human and material resources of an organization in order to foster improvement in its efficiency and effectiveness towards the achievement of organizational goals and objectives, essentially, it is apparent that the main objectives of facilities management is to ensure that all the equipment and facilities contained in the built environment for effective running of an organization are in their best condition always making it function in such a way that breakdown and/or delay in operation is eliminated as far as possible.

2.2.4 Concept of Teaching

Teaching comes from the verb 'to teach" which means to give someone knowledge or to instruct or train someone (Cambridge, 2003). To expatiate on this definition therefore means that any act of giving someone knowledge or instruction that would have positive impact in the experiences of the taught (recipient of such knowledge) in such a way that it changes his behavior positively to self-reliance and usefulness to the entire society is teaching. Education, as a universal phenomenon uses teaching as the medium in the achievement of its goal in all formal educational institutions. The college as an educational and formal institution is where youths are prepared and produced in different schools in order to come out and serve in the various sectors of the country's economy aimed at national development.

The transformation process which the teacher (lecturer) uses along with the inputs in the educational system is referred to as teaching. Teaching is therefore possible when all the required

inputs in the educational system are available in quantity and quality. These inputs are the learner, instructional and infrastructural facilities, fiscal facility (fund) enabling working environment and good welfare services for both staff and students. It is when these inputs are sufficiently available that effective teaching can take place by the teacher.

Contributing towards the role of educational facilities in achieving effective teaching, learning and research in the colleges, Fabunmi (2004) described every educational institution like any other social organization to be cyclic in nature. This is because, it derives its inputs (such as materials/money and supply), human (teaching and non-teaching staff and students) and expectation of or demand for how the institution would be run and what it would achieve. The system absorbs inputs from the environment and discharge outputs to the environment.

From the above explanation, it means that each school system (college) maintains close relationships with its environment and for it to survive therefore; continuous and adequate inputs have to be supplied as mentioned above. Each of the inputs (educational facilities, students, curriculum, financial and human resources) is related to the system's academic performance and system's academic performance and system efficiency.

From all said therefore, it can be postulated that the inputs, after undergoing transformation process (teaching and learning) will have a relationship with the quality of outputs (positively or negatively) and thus the performance of the system. However, one should always bear in mind that financial resource is the most important because it is what is used to acquire or provide, maintain and sustain the personnel, student, facilities and other administrative issues. Therefore, the quality of the outputs depends greatly on transformation process (teaching and learning) which can be defective if the input is inadequate, poor or unavailable.

According to Edem (2007), teachers are essential elements in any educational organization and he posited that the cost of maintaining them can account for over 60% of the total cost of education. As a way of augmenting the budget allocation to education by the Federal Government, Anigbo (2008) reiterated the role of the ETF which was instituted in 1998, stipulating that corporation and companies operating at a certain capacity level registered in Nigeria contribute 2% of their annual assessable profit to the fund. According to him, these funds are normally given as grants to primary, secondary and tertiary levels at proportion of 20:30:50,

Teaching, as mentioned in the National policy on Education (NPE) by the federal government (FRN, 2004: 15), shall be by practical, exploratory and experimental method" These policy statements suppose to cut across all tiers of the educational system. For the realization of this statement and effective and efficient teaching and learning and research to be achieved, all necessary inputs for effective transmitting and transformation of knowledge need to be put in place in the colleges and other levels of the educational system.

In his own contribution, Anderson (2000) opined that teaching and learning do not take place smoothly in a campus that is infested with protests, demonstration, lack of adequate feeding, housing facilities and all what make up a good students' campus. On the part of lecturers, efficient and effective performance becomes very difficult when there is poor housing facility, delay in payment of salary poor office accommodation and infrastructural facilities, inadequate instructional facilities and other social amenities .It is therefore important to safeguard the peace, tranquility, free, healthy and friendly environment conducive for Teaching and learning. Similarly, academic work is very challenging. Hence, a healthy and friendly condition that can reduce tension and stress on students must be created, thus, the need for adequate funding and its management

2.2.5 Concept of Instructional/Learning Facilities

These are materials employed by a teacher to improve and enhance the effectiveness of instruction. They are often referred to as facilities of teaching and learning. In fact, Nwokolo (2005) believed that instructional materials held to maximize learning on the part of students by appealing to a variety of senses. They are used in the process of instruction (Abimbade, 2000). This could be in any form, piece of equipment, graphic illustration that held the students to learn. Instructional material or media presupposes that other means of instruction can exist beside the teacher and that the students can learn without the teacher if he has access to media capable of presenting viable information (Agun and Imogie, 1991.The emphasis on the use of instructional materials is to help the teacher to explore his environment and prepare to a great extent, facilities that improve the learners, ability to understand a particular concept in his/her environment. Each of these instructional resources are further explained.

I .Display Materials: These include chalkboard magnetic boards, flannel boards, globes, bulletin board and so on. The chalkboard could be black, brown, green or white as we have it in magnetic boards that use the temporary markers and magnetic dusters. The chalkboard is one of the most commonly used teaching devices, thus, it is so important that teachers at all levels of education cannot do without the chalkboard (Aguokogbuo, 2005) . Teaching involves talking and writing. As the teacher talks, he makes classifications and illustrations immediately on the chalkboard. During class discussion, words or diagrams that convey meaning to learners are written on the boards. In this regard, the chalkboard becomes an effective instrument for communication. It is rather sad that chalk with which writing on this board is done is hardly readily available in most of our colleges, the flannel board which is next to the chalkboard in terms of simplicity as a device for presenting ideas or facts during teaching is not very popular in

most of our colleges. The flannel board or flannel graph is a display that is constructed based on the principle that a rough surface adheres to another rough one, if it is pressed on it. It is most useful when the subject matter demands a step by step development using pictures and diagrams as the case may be. Objects are displayed and removed at the teachers' convenience.

The next type of board to be discussed is the bulletin board which is also called the notice board. This is used to display information that may be type-written, poster, graphs, pictures, maps, chart, objects, comics, cutouts, cartoons, model and specimens can be displayed on the bulletin boards. Bulletin boards are among the least expensive educational resource that are made by teachers and students. Yet, information are found pasted on walls of buildings, culverts, trees among others. This shows that bulletin boards are not enough or not available in most of our colleges. The bulletin board can be constructed with wooden or metallic surface on an easel. At times, the bulletin board is encased in glass compartment and mounted on a wall. The casing is information to be fixed. Magnetic boards are in sharp contrast to the flannel board. This is because; it operates on the principle of a smooth surface. It is constructed with a sheet of metal that can attract a magnet. It attracts charts, models or objects to which a strip of magnet is attached.

II. Graphics: These include charts posters pictures/photographs, cartoons, graphs, maps, models and so on. These are also referred to as two- dimensional aids. The history of writing began with the use of symbols and pictures (Aguokogbuo, 2005). It is acknowledged that "a picture is worth a thousand words" and the first picture book in education published in 1651 remains the best picture book ever written for children. Graphic symbols are generally divided into icons, schematic diagrams and abstract representation (op, cit)Icons or Pictorial Representations.

This is a general name for pictures, printing, drawings and posters. In education, icons consist of still pictures, charts and flip charts and mobiles. Real objects may however be represented by means of pictorial drawings. Hence, pictorial representations are the universal medium of communication. They are successfully used in education for arousing emotions and interests in a subject thereby leading to enhanced teaching and learning.

III. Graphs: Data are usually represented by means of graphs. The different existing graphs include line, bar, pie, circle and pictorial graphs. Aguokogbuo (2005) described each as follows:

The line graph is used to portray relationships existing between two sets of data. The bar graph is used to compare the quantities of similar item. It is usually cylindrical in shape and always has a horizontal as well as vertical axis. The pictorial graph uses pit to represent data. It appeals to the senses and it is usually interest in and real.

IV. Real objects or Actual Specimen

These are animate and inanimate things within our environment. Some of them are usually part of our effective environment which enhance teaching and learning some of them appeal to our sense of seeing, hearing, smelling tasting, feeling or touching. In this regard, they are the most potent aid of learning. This is because the best way to make learning interesting, effective and meaningful to learners is to bring them face to face with the real things of life. This is why excursion becomes necessary in order to take care of such facilities that are not in the classroom.

Money is therefore required to actualize all these requirements. Thus, funds are necessary for the purchase and provision of all the appropriate instructional materials for the implementation of the college programmes. These materials as described by Ogbonnaya (op,cit) include all forms of information carriers that can be used to promote and encourage effective Teaching and Learning activities.

In addition, funds are important for the setting up of infrastructural facilities such as classroom blocks and lecture theatres, administrative blocks, office accommodation for lecturers, library and laboratory blocks hostel blocks for students, staff quarters, and so on. Similarly, the provision of such facilities as furniture (desks, tables and chairs), laboratory equipment and chemicals, internet facilities office equipment (type writers, photocopiers, computers, and scanners, duplicating machines, calculators, printers and so on) and stationary items required funds. It is therefore obvious that without funds, it would be difficult to put in place all required facilities necessary for effective teaching and learning in the colleges. With the rapid advances in information technology, computers and internet facilities are necessary for the collection, storage and retrieval of information.

2.2.6 Concept of Welfare Facilities

The concept of welfare facilities, welfare means the provision or making available facilities that are necessary for the well being of people at works, such as adequate washing toilet, rest and changing facilities and some where clean to eat and drink during breaks time sheingold (2004). Welfare facilities should be planned for all school and maintenance for emergency activities. Access to the facilities must be via a safe route.

However, whoever has overall control of the school is his responsibility for ensuring that the legal requirements for welfare are met. The school management should know that every one that is working under them including students suppose to provide with suitable welfare facilities. The school management must put in place necessary facilities for every one's well being. In addition to the provision of welfare facilities, regular maintenance and cleaning of then will be required. Particularly dirty work hazardous to health, e.g. adequate supply and maintenance must be considered for all staff and students to feel from dirty environment.

Park (2000) maintained that regular apply in providing welfare facilities, need to be considered in both pre-school setting and post- school setting, earth and safety condition are very important in managing human resources in every organization the following facilities need adequate maintenance such as:

a. **Toilet Facilities:** In School setting, facilities should be provided or available by other arrangements. Provided means accessible within the building for instance, within the classes, and within staff offices for easy and simple access to toilet for staff and students. This could be a portable toilet facility required for suitable and accessible to his or her needs. The staff and students are always in school never in any area, so therefore they should be provided with portable facilities unless the time for working day is planned to allow going outside. Weather regular maintenance or emergency work, one will still need to make arrangement for adequate welfare facilities to be available for staff and students at the same time.

b. **Washing Facilities:** Washing facilities must be provided made available and accessible in the same way as toilets. They are very important for those people carrying out toilet maintenance and relating tasks, and for those who may be exposed to areas, like laboratory, student's dinner's hall, watering areas. Washing facilities are required immediately adjacent to toilets, Additional washing facilities may be needed where food is prepared; Soap and water should be available in the toilet and labs where practical is taking place. Means of cleaning materials be provided, together with drinking water.

   The school management will need to consider the provision of separate facilities for men and women however, with respect to washing facilities; this will make the comfortable and good atmosphere for teaching and learning.

c. **Accommodation/Hotel Facilities:** Rest facilities must be provided made available and accessible. As for toilet facilities, they should have sufficient seating and facilities for heating food. Non smoker should be able to use the rest of facilities without suffering discomfort from any types of secret.

d. **Drinking Water:** A supply of drinking water must be made available accessible like toilet and washing facilities. Published by the health and safety. Executive's supplies in a container, this must be clearly labeled and the water changed often enough to prevent it becoming stale or contaminating.

e. **Food Service Facilities:** Even though colleges of education unlike boarding secondary schools have no plan on feeding students, but the provision and maintenance of dining hall be constructed and equipped that students and staff have access to food at all time. It is important therefore, that dining-halls and food service facilities e.g. Kitch and all auxiliaries for health preparation and seving of food.

2.2.7 Concepts of Recreation

Recreation is not an easily defined term, because it is a matter of personal interest, therefore it has been given different meaning by different scholar's i.e. Clawson and Knetsch (2000) "Recreation is basically a renewal or preparation for routine or necessary work or means of escape from it" The main purpose of recreation is to revitalize people so that they may efficiently return to activities which are economically and/or intellectually gainful. The distinguishing characteristic of recreation is not the activity itself but the attitude with which it is undertaken "This approach shows how recreation contrasts with work, which is done mainly for the purpose of existence and subsistence.

Butter (1999) defined recreation as any activity which is not consciously performed for the sake of any reward beyond itself, which is usually engaged in during leisure, which powers, and in which he engages because of inner desire and not because of outer compulsion. The activity becomes recreation for the individual because it elicits for him a pleasurable and satisfies response.

Seeley (1999) attempted a summary of this view he defined recreation as any form of experience or activity in which an individual engages from choice because of the personal enjoyment and satisfaction which he receives. These two concepts identified the personal nature of recreation and indicate why recreation activities are as diversified as the interests of man. In Burton (1999) opinion recreation is not activity which man engages in during his free time which does not include work, nor does it include certain personal and social obligations that all people have such as sleeping and washing. After stating what recreation is not he went on to define recreation as participation in any pursuits other than those associated with work and necessary tasks of a personal and social nature which a person undertakes freely for purposes of relaxation, or entertainment or for his own personal or social development.

This approach also identifies the diversified and personal nature of recreation which makes it worthwhile to first define what recreation is not before stating what it is. According to Ratcliffe (2000) recreation in any social accepted sense involves constructive activities for the individual and the community. The concept emphasized the productive aspect of recreation, since it revitalizes people so that they may efficiently return to activities which are not recreational but economically or intellectually gainful to the individuals and the community.

Burton (1999) attempted to distinguish recreation and leisure on the basis of functions in his opinion recreation encompasses the functions of relaxation and entertainment, while leisure is

concerned with personal and social development. In this approach the difference between leisure and recreation is not clear cut, because many pursuits can be undertaken for two or more of these purposes at the same time. To most people recreation is activity or in activity of special kinds, while leisure is term of a special kind.Recreation is leisure activity, but not all leisure is devoted to recreation. A leisure activity becomes recreational, the motive is enjoyment and personal satisfaction and the performance of the activity has its own appeal.

2.3 Theoretical Framework

Theoretical framework relating to this work, assessment of provision and maintenance of school plant were appropriately identified and fixed into the study they include; environmental theory, Teaching and learning or psychological theory and Peripheral theory Before starting what environment theory involve it is important to know the learning theories fall broadly into two categories, which are the Psychologist and the Associations'. The (I.Q tester) Gestalt Psychologists among who are Brunner were typically strong believers in heredity, whereas the Association's such as Skinner, Guthrie, Hull, Thorndike, Pavlov were environmentalists. The behaviorist learning theories maintain environmentalist position about learning or understanding behavior of organisms regardless of its inherited potentials' physical and psychological development, and Species stated that the environmentalists such as Skinner and Pavlov conceive learning as a process of stimulus and response energizing the organism or the learning to conditions to react to in the Ideas and perceptions but only because of environmental complexities. Although, there are several types of environments including physical, psychological and social, this study focuses generally on the physical environment and its relationship to teaching and learning specifically on physical infrastructures in Colleges of Education in North West Geopolitical Zone, Nigeria

The most important environment theory found most relevant to this study is peripheral theory, which focuses mainly on the physical environment and how it influences the behavior of the organism. The environmentalists or behaviorists value the peripheral theory which emphasizes that there are external factors or localized conditions within the environment and the body of the organism which influence behavior or learning (Blair 1999) this analysis is in support of the extrinsic approach to understanding human behavior. Went on to stress that the environmentalists who value the peripheral theory of motivation opined that the physical environment consist of all the things that stimulate the sense organs of the organism directly. Furthermore, the environmentalists such as Pavlov, Skinner and Thordike cited in Blair 1999,) assert that the environment is the master controller. The concept of the environment as the Master controller is better amplified by skinners message (quoted in which states that "we are all at the mercy of environment stimuli that has impinged on us" in support of the potency of environment in sustaining and directing the behavior of the organism, Blair (1999) strongly state that "no organism regardless of its potentiality and basic qualities can survive in absence of a favorable environment.

From the discussion on the environmentalists, standing point, one sees a more simplified approach to understanding behavior or human learning. The environmentalists also try to convince us that the organism or the human being never reacts except when stimulated by some stimulus or reinforcements provided by the environment .Thus to them, the intrinsic motivation to learn is aroused and sustained by favorable conditions or reinforces within the environment of the organism or learner. They support their Ideas by demonstrating that mental growth may be facilitated or retarded by factors present in the environment, through studies that have been made of children reared in foster homes, in Isolated backward communities, and in various

ethnic groups, for instance, studies by shodak and Speer reported in Blair (1999) have shown the beneficial effect on the I.Q by taking children from poor homes and placing them in superior adoptive homes or boarding houses.

However, the most interesting studies illustrating the influence of environment factors in shaping human behavior and many how are Identical twins in terms of heredity. Both Mable and Mary were reared separately early in life in country prosperous homes. However, Mable lived in the country side and participated in all rural activities including hard farm chores, she was only permitted to finish only eight grades in the small country school near her home. On the other hand, Mary grew in a medium sized city where she attended three years of highs school, and was very interested in music, she later finished her fourth year in a large- city school. After graduation she became a music teacher. At the age of twenty-nine (29) Mable and Mary were studied by Newman, a psychology, intelligence they were separated by 17,IQ point on Standford- Binet est the finding showed that Mary, the city lady, was rated as high average in intelligence and in manner quite lady like while Mable the farm lady was rated low average and in manner almost masculine. Even physically, Mable and Mary differ.

This study of Newman illustrates how wide two persons (even with heredity constant between them) can still diff in intelligence, personality, and physical appearance, because of environmental differences. However, what Newman terms intelligence her cannot be more than performance which were influenced by environment, The researcher agrees with the environmentalist ideas which have helped us in understanding human behavior of learning. However, one should not lose sight of the psychologist, most basic and current principles which stress that behavior, intelligence and learning result from complex factors such as heredity

interacting with environment need to be systematically planned, managed and the learner should be ready to learn.

The environmentalists, strong principle that environment is the master controller of human behavior, in the sense that complex human beings have special sense organs which enable them to see, hear, feel, taste, small and respond to various stimuli in their environment, has been found very useful for physical facility planning and management for school. This assertion who opines that environmentalist's ideas have dominated the planning and management of American schools for a long time. Thus, the environmentalist's peripheral theory has been very meaningful instruction for planning and maintenance of educational facilities, instructional materials methods and process of instruction in the interest of teachers and students. Provision of suitable and adequate educational facilities and instructional materials with a view to stimulating all the senses of the learners is necessary. This would help make teaching and learning more effective and more efficient. In support of this point Nwurgu (2004) stated that the physical environment which includes the school tarring, vegetation and material resources create a full atmosphere for teachers and students in teaching and learning. Nwurgu (2004) share the view that aesthetic values derived from such good and clean surroundings give rise to attentiveness to classroom instruction as well as commitment to school goals. This point of view may be useful in understanding why some parents prefer sending their children to particular schools than sending them to others, thus, the need to Endeavour to create a conducive physical environment for Colleges of Education in the North West Zone becomes a challenge to the state and federal government, educational planner, NCCE and TETEFUND in this period of technological development and dwindling economy

2.3.1 Environmental Theory: It's Relationship to Physical Facilities planning and Management

Before starting what environment theory involve it is important to know the learning theories fall broadly into two categories, which are the Gestalt Psychologist and the Associations'. The (I.Q tester) Gestalt Psychologists among who are, Brunner were typically strong believers in heredity, whereas the Associations such as Skinner, Guthrie, Hull, Thorndike, Pavlov were environmentalists. The behaviorist learning theories maintain environmentalist position about learning or understanding behavior of organisms regardless of its inherited potentials' physical and psychological development, and stated that the environmentalists such as Skinner and Pavlov conceive learning as a process of stimulus and response energizing the organism or the learning to conditions to react to in the Ideas and perceptions but only because of environmental complexities. Although, there are several types of environments including physical, psychological and social, this study focuses generally on the physical environment and its relationship to teaching and learning specifically on physical infrastructures in Colleges of Education in North West Geopolitical Zone of Nigeria

2.3.2 Physical Environment Theory (Peripheral)

The most important environment theory found most relevant to this study is peripheral theory, which focuses mainly on the physical environment and how it influences the behavior of the organism. The environmentalists or behaviorists' value the peripheral theory which emphasizes that there are external factors or localized conditions within the environment and the body of the organism which influence behavior or learning (Blair 1999) this analysis is in support of the extrinsic approach to understanding human behavior. Blair (1999) went on to stress that the environmentalists who value the peripheral theory of motivation opined that the

physical environment consist of all the things that stimulate the sense organs of the organism directly. Furthermore, the environmentalists such as Pavlov, Skinner and Thorndike cited in Blair 1999,) assert that the environment is the master controller. The concept of the environment as the Master controller is better amplified by skinners message (quoted in sprint hall et al 2000:277) which states that "we are all at the mercy of environment stimuli that has impinged on us" in support of the potency of environment in sustaining and directing the behavior of the organism, Blair (1999) strongly state that "no organism regardless of its potentiality and basic qualities can survive in absence of a favorable environment.

From the discussion on the environmentalists, standing point, one sees a more simplified approach to understanding behavior or human learning. The environmentalists also try to convince us that the organism or the human being never reacts except when stimulated by some stimulus or reinforcements provided by the environment .Thus to them, the intrinsic motivation to learn is aroused and sustained by favorable conditions or reinforces within the environment of the organism or learner. They support their Ideas by demonstrating that mental growth may be facilitated or retarded by factors present in the environment, through studies that have been made of children reared in foster homes, in Isolated backward communities, and in various ethnic groups, for instance, studies by shodak and Speer reported in Blair (1999) have shown the beneficial effect on, by taking children from poor homes and placing them in superior adoptive homes or boarding houses.

However, the most interesting studies illustrating the influence of environment factors in shaping human behavior and many how are Identical twins in terms of heredity. Both Mable and Mary were reared separately early in life in country prosperous homes. However, Mable lived in the country side and participated in all rural activities including hard farm chores, she was only

permitted to finish only eight grades in the small country school near her home. On the other hand, Mary grew in a medium sized city where she attended three years of highs school, and was very interested in music, she later finished her fourth year in a large- city school. After graduation she became a music teacher. At the age of twenty-nine (29) Mable and Mary were studied by Newman, a psychology, intelligence they were separated by 17,IQ point on Stanford-Benet est. the finding showed that Mary, the city lady, was rated as high average in intelligence and in manner quite lady like while Mable the farm lady was rated low average and in manner almost masculine. Even physically, Mable and Mary differ.

This study of Newman illustrates how wide two persons (even with heredity constant between them) can still diff in intelligence, personality, and physical appearance, because of environmental differences. However, what Newman terms intelligence her cannot be more than performance which were influenced by environment, The researcher agrees with the environmentalist ideas which have helped us in understanding human behavior of learning. However, one should not lose sight of the psychologist, most basic and current principles which stress that behavior, intelligence and learning result from complex factors such as heredity interacting with environment need to be systematically planned, managed and the learner should be ready to learn.

2.3.3 The Relevance of Environmental Theory to Educational Facilities Management

The environmentalists, strong principle that environment is the master controller of human behavior, in the sense that complex human beings have special sense organs which enable them to see, hear, feel, taste, small and respond to various stimuli in their environment, has been found very useful for physical facility planning and management for school. This assertion is supported by Blair(1999) who opines that environmentalist's ideas have dominated the planning

and management of American schools for a long time. Thus, the environmentalist's peripheral theory has been very meaningful instruction for planning and management of educational facilities, instructional materials methods and process of instruction in the interest of teachers and students. Provision of suitable and adequate educational facilities and instructional materials with a view to stimulating all the senses of the learners is necessity. This would help make teaching and learning more effective and more efficient. In support of this point Nwurgu (2004) stated that the physical environment which includes the school tarring, vegetation and material resources create a full atmosphere for teachers and students in teaching and learning. Nwurgu (2004) share the view that aesthetic values derived from such good and clean surroundings give rise to attentiveness to classroom instruction as well as commitment to school goals. This point of view may be useful in understanding why some parents prefer sending their children to particular schools than sending them to others, thus, the need to Endeavour to create a conducive physical environment for Colleges of Education in the North West Zone becomes a challenge to the state and federal government, educational planner, NCCE and TETEFUND in this period of technological development and dwindling economy.

2. 4 Physical Facilities'/Fixed Assets

This facility takes the form of land, buildings, and plumbing facilities and so on. Site or land, housing all building and structures of any educational enterprise or organization such as the college farm lands, lecture theatres, lecture rooms, workshop, laboratories, office blocks, library complex, educational counseling complex, staff and students accommodations, sports and games fields, staff clubs, gymnasia and so on are build on lands. These lands are fixed assets for the college. These lands at times are acquired by the college. Sometimes, the land ownership could be a particular community and acquisition of such land requires the payment of compensation (in

form of money) which also require fund. Thus, every aspect of educational facilities for the college is capital intensive and procurement of these facilities enhances effective teaching in the college. More lecture buildings eradicates the problem of over population in the classroom leading to more comfort by the students in learning. High enrolment has resulted in non-compliance with the Federal Government Policy on Teacher/Student ratio in the college.

Of all the facilities available to the educational institutions, Muhammad (2006) identified school facilities as the ones mostly affected by neglect in terms of management and maintenance. There are instances where wreckages and broken furniture litter the classrooms and environment; leaking roofs, broken louvers, doors and so on are found all over the campus. Facilities referred to include school buildings, classrooms, laboratories, instructional materials and modern educational hardware's (computers, televisions, internet facilities), These facilities are what Muhammad (2006) as those things of education which enable a skillful teacher to achieve a level of instructional effectiveness that far exceeds what is possible when they are not provided. Since educational facilities imply substantial cost to the educational system for their establishment, (which is funding) they need to be properly managed and maintained. If this is done, such facilities dilapidate and wear out faster than their normal life span. The adequacy of these facilities is very important in teaching and learning at all levels of the educational system (primary to the university level) To support the researcher's opinion, Akindele (2010) believed that the inadequacy of infrastructural facilities in the Nigeria colleges has led to situation where students scramble for seats and spaces in the lecture rooms to receive lecture; many students lack space in the hostel where they can rest after the day's lecture; library, which suppose to be an opportunity of exposure to library culture aimed at improving learning skills is not well equipped

and laboratories where scientific research and discoveries are conducted are either lacking or ill-equipped.

2.4.1 School Buildings

The school infrastructural facilities required by each school would vary from time to time depending on the size of the programme orientation and level of education. Durasoro, 1998:55 and Innih (1978) stated that the following types of building are needed for a school to start. These are "classroom blocks, administrative blocks, hostel blocks, kitchen and dining hall, physical and other science laboratories, library block, technology workshop and typing rooms assemble hall, students common room, staff quarters both senior and junior staff quarters and so on.

The school infrastructure facilities are space interpretation of the school curriculum according to Okeke(2000). Knezevich in Okeke indicated that far more importance should be attached to the impact of facilities on educational experience and educational methods used within school buildings. Therefore, an effective school infrastructure facility is a controlled environment condition which aids the teaching and learning process and at the same time protects the physical well being of the occupants. Okeke (2000) further explained that, the extensiveness of modern- educational undertaking and the variety of duties that must be performed therein have made school building something more than a mere collection of classrooms of varied sized. He said that auxiliary spaces are needed such as auditoria, food services facilities, student's common rooms, administrative and counseling offices, and health annexes. He finally indicated the general public use facilities such as corridors halls, cloak rooms, lobbies are enemies of movement for school users. Okeke highlighted some other building such as sits service facilities which he said include toils, and car parking spaces,

building service facilities such as junior and senior staff quarters, shops, laundry and refuse disposal facilities. The most important area of a school building is those spaces where administrative and teaching and learning take place. Today's schools demand a diversity of learning designed for the individual of a, small groups of students and large classes organizations have changed and will continues to change, they all affect the ways provision are made for school building (Okeke,2000:149).

School buildings have long life span and so they should be available to meet both immediate and long-range needs. Okeke (2004) School building have long life span and so they should be available to meet immediate and long-range needs Okeke (2004) argued that the most important element in school building is "an effective school building investment policy will succeed in building the right of schools in the right places at the right time and at the right "cost" here the right kind of accommodation suits the educational needs of the community it service

2.4.2 Structural and Mechanical Features

Structural and mechanical features include foundation walls roofs, floors ceilings and electrical wiring.

a. Structural should meet all barriers both externally and internally.
b. Foundation should be strong and stable with proper expansion joints
c. Roofs should be structurally sound, with good drainage.
d. Entrance and exists should be strategically located so as to permit free students movement.
e. Well maintenance ceiling should be ensured to adequately prevent sound;
f. Interior should be free of breakable asbestos, and dangerous materials

g. Water supply should be adequate with sufficient pressure to meet health and safety needs Umar(1998)

2.4.3 School Building Safety

A. Site safety: the site of the school building should consist the following as the most essential they in making sure that adequate safety is providing in terms of site safety thus;

i. Access streets should have sufficient signals or sign to permit safe entrance, and exit from school area
ii. Sidewalks and steps should be protected by proper sign and signal
iii. On sidewalks and steps should be protected by proper sign and signals
iv. Vehicular enhances and exists should be safe for traffic flow;
v. Students play areas should be segregated from vehicular traffic and pedestrian walk way

B. Building Safety: The building of the school facilities needs safety in all rounds and proper utilization for students and staff is often to benefit in the school safety of building can in formed, thus:

i. Classrooms should be adequate to provide free movement

ii. Emergency doors should be provided where necessary,

iii. Exits should be marked the exits sign,

iv. Class should be properly located and protected to prevent accidental students and staff contact and to ensure their safety,

v. Emergency lighting should be provided throughout the building;

vi Stair riser should be provided where necessary;

vii. Floors should be maintain in a nonslip condition

Viii. Multi-story building where applicable should have at least two stair ways

ix. Traffic areas should terminate at an exist;

x. Automatic a manual fire alarm system, with a distinctive sound flashing light should be provided

xi. There should be two independent exist to safety from any point in the school building.

xii. If possible, non combustible or fire resistant materials should be used throughout the Structure

xiii .Adequate fire safety equipment should be properly located at strategic point in the school building

xiv Student's emergency treatment clinic should be provided Umar (1998

2.4.4 Administration of Building (support space)

The administrative spaces or building as observed by Durosaro (1998) was usually carried out the end of a building, and was usually sand witched among classrooms. He further stated that it was usually at assistant. At colleges of education level he said "spaces are provided in a separate block to house the principal officers, staff officers, clerical staff estate management office or works department etc. According to him, the administrative space were strategically located to enable the principal officer and staff to keep enough supervision of students work The maintenance of the administrative building was done by both students and junior clerical staff of the school. Cleaners and other auxiliary staff through daily clear the administrative block and often the surrounding of school. In addition to the above specialized facilities, the following are equally essential, these are general public facilities, such site as corridors, hall, lobbies and so on other specialize facilities include site service facilities, for example toilets, and car parking spaces owoeye (2000)

Durosaro(1998) pointed out that, circulation building or spaces such as corridor, lobbies, stair cases are usually constructed as appendages to the instructional spaces. The classroom corridors and lobbies were usually specially designed for students to stay to realize during short breaks. The circulation spaces for are usually cleaned along with classroom daily basic by the cleaners.

2.4.5 Provision and Maintenance of Furniture's needed in school

In an educational environment like colleges of education, furniture's are needed to facilitate learning. Available furniture required in each school will depend largely upon the type of school and the type of activity that is carried out in the school. These type of furniture facilities needed in a school may include the following; tables, desks, lockers, drawers chairs, bench, stool, these may be classroom and office furniture, hostel and staff quarters furniture and so on. All these furniture contribute significantly to the teaching and learning facilities in the school setting.

The main is for the school management to provide a school building plant by which such building will be adequately furnished for the presence and the future use for an effective educational programme without neglecting the types of furniture the school need.

Ovwigho (1999) explained that necessary equipment in a school may be calculated and Analyzed based on different categories of indicators are of different categories. According to him, in discussing the furniture he identified three percentages of a situation whereby a school in a state may be considered to have sufficient or insufficient furniture.

The school heads are the custodians of their school facility; it is their responsibility to ensure that the right types of furniture needed in their schools are in large quantity and quality.

The furniture should also be in good working condition and well protected. They must ensure, through close checking and supervision of relevant furniture facilities used by student and staff

2.4.6 Maintenance of Facilities in Nigeria Colleges of Education

Maintenance involves maintaining items such as building, furniture and equipment as far as possible in their original condition UNESCO (1984), Peretomode (2000) identified the difference between maintenance and improvement. According to him, the needs of staff and students change as the school is put into use. He observed that often the experience of a building or school facilities as Shelves in use would demand on alternation in the original condition of the facility. When this is done, it is not only maintained but also improved. He maintained that what passes on as maintenance in the school is also actually improvement and more so because the original state of the facilities leaves much to be desire.

In the context of the maintenance as defined above, Olagbo, (1999) reviewed maintenance as any work (such as repairs servicing and painting carried out on any component of the plant with a view to keeping it in or restoring it optimum working conditions Vickeriy (1999) points out four policies options that are open to the planners considering the maintenance of the stock of school building, furniture, equipment and facilities in a whole. These are as follow:

a. No maintenance at all
b. Emergency maintenance
c. Ad hoc maintenance
d. Preventive maintenance

All these are used in maintenance of school facilities at different category and stage where each school facility will not be left out without maintaining or repairing it at all.

A. No maintenance at all: This is a situation in which maintenance is adjusted for costly to include in the school budget or where government judges that there is no need to charge maintenance against public funds. The decision no to maintain night to be taken, if the majority of the schools in a given government area are in the hands of community;

B. Emergency Maintenance: Money is hardly budgeted for emergency maintenance of school building and facilities on most colleges of education in North-west Geopolitical Zone of Nigeria. In areas prone to natural disasters, the practice is always to divert funds set aside for other purpose to the re pairs of facilities damaged by the natural event. One might argue that this is not a policy. It is however a practice by administrators and government functionaries in the state.

C .Ad hoc Maintenance: This is the provision of a general sum of money in the budget which is used at the discretion of the education authority to finance unplanned maintenance activities one features of this option is that the resources budgeted are always too small in relation to the work to be done and the funds disbursed, are therefore, supposed to be for the priority assigned.

D. Preventive Maintenance: It should be observed that the options described above are based on expediency. The most preferred option would be to prevent maintenance plan of school facilities. The preventive is based on the design, use and analysis of regularly conducted surveys and work would involve not only occasional repairs but maintenance undertaken at regular intervals with a view to reducing or preventing the future deterioration of facilities. A good example of this regular painting of woodwork and metal work against rust Vickery, (1999) Edem (2007) affirmed that maintenance and repairs and adjustments must be made promptly before major damage occurs. He suggested that vehicles should be examined regularly and the moral character, physical condition, and demonstrated driving ability of the driver must be scrutinized

before his employment. Understanding school management would require the performance of the different functions of the school managers.

All impediments to the provision and maintenance of facilities in colleges educational are referred to as constrains in this research. Since educational managers are directed towards the realization of educational goals using available school facilities, what then are possible problems or constraints confronting the maintenance of school facilities?. To provide some insight into the constraints, the write up the background provided problems of school facilities. Some institutions of learning often lack basic infrastructural facilities, to perform effectively.

Most of the time classrooms or lecture halls were inadequate and as a result, lecture hall were held in converted classes or small halls that cannot contain large number of students. Even where they exit such lecture halls were so dilapidated totally not conducive to the learning process. The situation can be worsened by the general lack of maintenance culture.

Where gigantic structures such building as a result access to external loans, such buildings were left in serious disrepair in many case even the technology and expertise to affect maintenance were not available. The result of the structural depreciation is unparalleled in the country (Enaohwo and Eferakeya 1999), Durosaro (1998) stated that owing to the present day inadequate provision of funds for the schools, two major factors had arisen in connected with school facilities. The first is that there were insufficiencies of funds to provide adequate facilities for the growing enrolment in the school facilities cannot be adequately maintained due to lack of funds. Hence, the example in the school is such that the facilities were in poor state owing to over-use and poor maintenance. According to Durosaro (1998) buildings in the same school were either uncompleted or completed but vary ragged and dilapidated.

Anderson (2000) noted that it is almost axiomatic that physical environment of a school is an important factors for students learning. One other problem or constraints confronting the school management is maintenance of constraints confronting the school management is maintenance of facilities, According to Anderson (2000), in the area of small facilities maintenance is necessary to retain the school artisans to handle the modern gadget used in the schools. Owing to the frequent electricity power and water shortage some of the equipment has become damaged and they need the attention of experts.

Manya (1999) lamented that the main constraints in maintenance of school facilities include inadequate infrastructure, insufficient equipment and materials poor staffing and low staff morale, corruption poor funding. Indiscipline and poor performance by staff and have been build for engineering and technology, they have not been connected to power, while expensive equipment meant for use are left at the mercy of day and night marauders where giant electricity generator have been supplied by the government or individual done for use in school they are abandoned while the school wallow, in darkness and their workshops in total neglect.

Umar (sited in Sani, 1998) affirmed that, the actual problems which have involved to the fall of educational standard are the situation with regard to infrastructure in the school.

He maintained that open air lesson have become common in the colleges of education. The situation is waging most especially during examination where students sit in a crowded condition. There are overcrowding in the hostel, classes or lecture hall, laboratory etc. He added that it is obvious that the problem is not only that the schools cannot be maintained but the inability to build more school to cater for the increasing population of the school students. According to him, a combination of rained infrastructure and over=crowding in lecture halls are

sure to defect the efforts of even he most dedicated staff in his desire to ensure that meaning full learning takes place

In the views of Enaohw and Eferakey (1999), funds for the development have been the greatest cause of distress in most of the developing countries including Nigeria. They said that as a result, school facilities take off only on the drawing boards because of shortage of money to see them through. Fadipe (2001) noted that school facilities maintenance becomes complicated with the increase in the enrolment in the colleges of education. According to him, facilities provided for few students of a manageable size are being used for thousands of students today, which almost multiply the number of students been provided before. The teaching and learning programme in the colleges of education as a whole, and then the need of individual schools should determine the type and quality of facilities and equipment in the school should get. However, apart from the problem of inadequate supply of equipment and facilities as observed by Nwurgu (1999) there is also the problem of how to make equipment effective and useful to the students and staff in general. Maintenance of facilities of an institution is assessed through the functionality of the various equipment, instruments and tools including utilities of the college. A further investigation could reveal the type of maintenance policy adopted by the leadership of the college. According to the report of the monetary and evaluation exercises December 2008 on Federal Colleges of Education there were works department established in all the colleges charged with maintenance of all support services facilities. The works department performance in maintenance was only explained through the functionality of the facilities and no details were given on their maintenance policy.

Equipment was assessed at three levels namely; their availability, functionality and adequacy as prescribed in the minimum standard. The equipment considered for the investigation

were computers, photocopying machines, public address system projectors, tractors, poultry, fish ponds animal farm, sport and recreational facilities and social cultural activities facilities. The exercise found that computers were available in all the colleges visited but they were not fully functional in Federal College of Education Kano only and not adequately in eight other colleges' photocopying machine was available in all the colleges but no all were functional in four colleges. Public address system were functional in all the 20 Federal Colleges of Education but were inadequate in seven of them, projectors were found to be available and functional in all the 20 Federal Colleges of Education but no adequate in seven of them. Tractors were found to be available in the colleges except three federal colleges of education. Tractors were however not functional in 3 of the 17 colleges that had tractors. Tractor were found to be adequate as prescribed in minimum standard in 12 of the 20 college covered by the investigation. Poultry was found to be available in all the colleges except federal college of education (technical) Umunze.

Poultry was both functional and adequate in fifteen colleges. Fish ponds were found to be available in 16 colleges and not available in four. They were not functional in 6 out of the 16 that had it at the time of the exercise. They were also found to be adequate in 12 of the 16 colleges that had fish ponds. Animal farms were available in the 19 of the 20 colleges covered by the exercise. The college without animal farm was federal college of education Umunze. Animal farms were however not functional in 2 colleges and not adequate in one that was federal college of education (technical) Akoka. Facilities for sports and recreational were found in all except 2 and not functional in another 2 colleges out of the 18 colleges that had them. Facilities for sport and recreation were found to be adequate in 7 of the 20 colleges. Lastly, facilities for social-cultural and leisure activities were found available in 14 of the 20 colleges. Analyses of the data also showed, that they were functional in 13 colleges and adequate in 18 colleges.

The similar exercise on state college of education considered the same indicators of performance on equipment maintenance and assessed it on the same three levels of availability, functionality and adequacy. Computers were found to be available in all the 28 colleges, functional in18 and fairly functional in 10. In terms of adequacy of the computers 10 colleges were listed not adequate and 8 have fairly adequate computer. Photocopying machines were available 27 of the colleges of education and not in college of education Nsugbe. Two colleges had poorly functional photocopying machines against 25 functional. 8 of these colleges did not have adequate photocopying machines. Public address systems were found in all the 28 state colleges of education visited out of the 28, they were fairly function but not adequate in four colleges, poorly functional in seven of them. They were not adequate in eight colleges out of 24 colleges they were available. 22 state colleges of education had poultry farm while six had none. 11 (eleven) of the colleges had fairly functional while four had non-functional poultry farms. Non functionality obviously indicates poor maintenance policy and performance.

Fish ponds were available in 15 colleges but absents in 13. These ponds were not functional in 6 colleges, fairly functional in one and fully functional in eight colleges. They were not adequate in five (5) of the 28 colleges. Similarly, animal farms were available in 24 and not in four (4) colleges' .They were functional in 12, fairly functional in four colleges and not in the rest. They were also adequate in 14, fairly adequate in 5 and not adequate in nine (9) of the 24 colleges that had established them. Sport and recreation facilities were available in all the 28 colleges but functional in 17, fairly functional in 10 and poorly functional only in Benue state College of Education. Four other colleges but of the 28 did not have adequate sports and recreational facilities. Lastly facilities for socio-cultural and leisure activities were available in 25 colleges but not available in three colleges. These facilities were not functional in three

colleges where they were available and not adequate in the five (5) of the 25 colleges they were provided. These results of the exercise referred to above give use a picture of maintenance of facilities. One of the variables this research work intends to investigate.

2.4.7 Maintenance of Plants in Nigeria Colleges of Education

Maintenance involved activities carried out on items such as buildings, functions and equipment to keep or restore them as far as possible, to their original condition and enhance their utility. The concept of school facilities maintenance has been explained by many scholars more broadly as follows. Olagboye (2004) opted that maintenance in the context of the school plant connote any work (such as repairs, servicing, painting, carried out on any components of the plant with a view to keep it in or restoring it to optimum working condition. Adeboyeje (2000) had it that school physical facilities maintenance implies the process of any activity that involves repairs, servicing, painting galvanizing, greasing etc. and which is being carried out on any component of the physical facilities in a attempt to keep or restore it and more importantly, to ensure that physical facilities are in good shape. Oluchukwu (2005) simply put it that maintenance of school plant is concerned with keeping grounds, buildings and equipment in their original condition of completeness or efficiency. The above and similar other definitions indicates that maintenance is a regular activity which can be largely planned in advance for better result. In specific terms the main objectives or purposes of maintenance were enumerated by Olagboye (2004) as follows:

i. Conserve physical resources in a condition in which they will continue to render optimum services;
ii. Preserve the value of the initial investment on physical facility particularly buildings.

iii. Retain and improve the reliability of physical resources such equipment vehicle and other machinery with moving parts

iv. Preserve and or avoid wastage

Maintenance for all the above purpose needs adequate attention by officials of state and federal ministry of education, institutional administrators for teachers, non-teaching staff and students are to be involved in school plant maintenance. Maintenance therefore, requires a full pledge planning to be successfully accomplished. Maintenance should allocated realistic sum of money.

However, at the institutional level administration as one of their important tasks efficient management and maintenance of the school physical facilities, it is therefore, necessary that they become conversant and understand the techniques principles of operating and maintaining the school physical plants. In this context, a number of maintenance approaches/ policies/ forms/types widely undertaken in industry which are easily applicable in the maintenance of the school plant by school administrators were summarized as follows by Olagboye (2004).

i. Preventive and predictive maintenance: This form of maintenance focuses on preventing breakdown or situations which can put parts of the plant out of use. Such services include regular servicing of vehicles and other equipment and machineries with moving parts, periodic repainting of building. Preventive maintenance in the school setting is this a form of running maintenance in the sense that services are carried on, say, the school generating set, school bus, while lessons continue in the classrooms and the school itself continues to function.

ii. Corrective maintenance: corrective maintenance work is chiefly directed at repairing faults. Examples include the timely rectification of electrical faults to prevent fire

outbreak, replacement of broken or leaking plumbing pipes and fifing, replacement or cleaning of spark plug is usually undertaken to rectify any breakdown that has occurred in any component of the school physical plant. This form of maintenance could also involve the preparation of contingency plans for the possible acquisition of spare parts. Breakdown maintenance is very often occasioned by ineffective or inefficient preventive maintenance services. Since preventive maintenance services normally cost far less than breakdown service, school head will do well to lay greater emphasis on the former in order to conserve scarce funds.

iii. Shutdown maintenance: Shutdown maintenance services are those that are carried on while operations of components of the school physical plant suspended or closed down. For example if classroom, laboratory building, assembly hall or any school building that is normally in constant use by students need to be rehabilitated (i.e. to effect major repairs such as re roofing, and re ceiling, re-flooring, or plastering), the students have to vacate such a building until work is completed on it. By the same token, the whole school could be shut down for a given period in the case of extensive windstorm damage in order to allow for rehabilitation or renovation.

iv. Planned maintenance: However, the best and most cost effective approach to the maintenance of school physical plant is to integrate the different approaches describe above into a planned programme of maintenance. Planned maintenance thus connotes scheduling of routine servicing, repair and overhaul arrangements as well as the drawing up of contingency plans for unexpected breakdowns in advance. A good maintenance plan will also include a hazard insurance scheme to cover some of the component of the school.

Several scholars have reiterated the need to ensure that existing physical facilities know institutions are properly maintained in order to continue to create effective teaching learning conditions and bring about realization of educational objectives. Some have also identified and proposed the planned maintenance practice as have the best Chance to create the needed maintenance culture in Nigeria that would continue to endure proper maintenance of our schools physical facilities. Previous studies have confirmed positive results and schools. In fact some early research findings have reported that even if the educational curriculums sound and well operated while the school facilities are poor and badly managed the result of the teaching/learning activities will be negative (Durosaro, 2000).

Adeboyele in 1984 studied the management of school physical facilities in Ondo state Nigeria and found that schools with well-conditioned plant planning and maintenance practice recorded better students, performance. That informed his assertion in Adeboyele (1994) that effective management of school physical facilities being about the following facilitation of the development of educational programmes, facilitation of educational process, boosting of the morale of teachers and pupils, usefulness in the determination of the work of a school\, influence on the relationship between the school and the community and usefulness as cultural, civic, recreational and youth centre.

Another related study conducted by Durosaro (1981) focused on reducing educational cost through planned plant maintenance in Nigerian schools. The study found out among other things, that the cost of planned plant maintenance has an inverse variation with unit cost of education in schools sampled. Another researcher, Olaloko (1991) studied school plant maintenance practice in the University of Ilorin. He tried to relate the global utilization rate of

school facilities to the rate of maintenance of plant and discovered that the plants that scored highly on maintenance rate also scored higher in utilization

2.4.8 Maintenance of the Necessary Facilities in School

Windows, door, wall, minimum maintenance; and finish requiring minimum maintenance;

Outdoor light fixtures electric out lets equipment and other fixtures, should be accessible for repair and replacement,

Classroom floor covering should be the type which requires minimum care;

Ceilings and walls should be the lands that are easily cleaned and resistance to stain;

Build in equipment in laboratories should be designed and constructed for ease of maintenance;

Floors, in the dining halls, kitchens or cafeterias and corridors should be the types require a minimum of maintenance;

Walls and Ceilings in socially designed areas should be the types that can be easily cleaned;

Recreational areas should be kept clean always;

Adequate custodial storage space, with water and drain should be accessible to all areas,

Adequate electrical outlets and power should be available in every area to permit routine cleaning Owoeye (2000

2.4.9 Availability and Maintenance of Equipment in School

Equipment and Materials are essential in the school for educational use, Facilities such as furniture, laboratories equipment and materials have direct significance in the teaching and learning process, this is because without them, the empty building and structures cannot actually be used for the purpose for which they are meant.

Science and technology infrastructures can generally be defined as intermediate inputs that proved the basic for the functioning of other technologies or provide essential service, to other sector of the economy. Technology infrastructure consist of science, engineering and technical knowledge available to industry, such knowledge can be embodied in human, institutional, or facility forms more specifically, technology infrastructures include genetic technologies teaching information and research and test facilities as well as less technically, explicit areas including information relevant for strategic planning and development of equipment facilities in school Owoeye (2000)

At every level of science education, laboratories are perceived as a vehicle fo curriculum enhancement studies including Hardley & sheingold, (1992) have indicated that a properly equipped and functional science laboratory has the potential for enhancing science learning. Science laboratory have central and distinctive role and use of science equipment and educators suggest that there are rich benefits in learning from using laboratories facilities. In many Africans countries research have revealed shortage in the number of laboratories in schools.

A study by Jones (1990) found that 45% of the school surveyed in selected African countries indicated insufficient laboratories. Alebiosu, (2000) and Onipede,(2003) reported that many schools in Nigeria do not have laboratory with minimum standard facilities inadequacy in the availability of laboratory facilities in schools.

Babura (1989) indicated the relevant infrastructure for teaching and learning for expected ends was to be achieved "a variety of activities must be engaged in by a person of various talent". Teachers cannot enjoy their activities by always concentrating on the chalkboard work. They need different equipment to attract the interest of the students who need more practical and less theories.

2.4.10 Promoting School Plant Maintenance Culture

Schools and institutions could help in ensuring the establishment of a good maintenance culture in Nigeria. A good maintenance culture in the school would promote discipline and achievement of the overall goals and objectives of education. Ojedele (1998) maintenance that it is expected that if pupils at the early stage of their life are exposed to good maintenance culture in the school it will have a positive transfer effect on the society as a whole. Therefore, if we could inculcate it in our schools, successive generations of students we will be promoting and establishing it in the larger society.

In this regard, Olagboye (2004) change all stakeholders in the educational enterprise to actively encourage the practice of planned maintenance in our schools, furthermore, he identified and outline their role as summarized below:

a. **Government:** Government as the proprietors and custodians of public schools and institutions in Nigeria should introduce into their annual estimates/budgets a separate and distinct head or sub head which will be devoted to cater exclusively for the planned maintenance of school plant. Funds from such a head/sub-head will also provide for insurance schemes in school. Government inspectors of schools comply with any rule and regulations that government might prescribe for the expenditure under the head/sub-head.

b. **Private school proprietors:** Private school proprietors are similarly advised to imbibe the cultures of planned maintenance of their school pants. They should make it a point to allocate some funds in their annual budgets for maintenance work. They should regular supervision ensure that every component of the school plant requiring maintenance is

promptly attended to. They should make it a point to ensure hazard insurance cover for their buildings costly equipment machines and vehicles.

c. **School heads:** School heads are the custodians of their school plants. It is therefore their responsibility to ensure that all components of the pant are in good condition; that they are well protected; and that they are used for the purpose(s) for which they were acquired. They must ensure through close supervision of the relevant personnel, that all items/machines/equipment/vehicles to be serviced, repaired or overhauled are actually serviced.

d. A well-maintained school plant provides a more conducive atmosphere for teaching-learning process than an unkempt, dilapidated school plant. It is important therefore that school heads and teachers should sensitize their students to this simple fact and to mobilize them on this premise, to be actually involved in the maintenance of the school plant. As future leaders, Students need to be encouraged to imbibe and internalize the culture of maintenance so that they can transmit same to future generation. Students therefore must behave responsibly to the authority by obeying abed enforcing any rules made in this direction.

e. **Parents:** The home or the family, as the primary vehicle for the transmission of society's culture has an important role to play in inculcating the maintenance habit in school pupils. This can begin with parents/guardians getting their children/wards to routinely keep in good condition their uniforms. Books and other personal school items. Once this habit has become ingrained there is the like hood of transforming it to the school setting. This will in turn make students more receptive to, and more involved in planned maintenance programme of their hopefully, the pupils will this way grow up into adults

with a life-long commitment to a maintenance culture both in their personal like and in their workplaces. In a similar submission Ojedele (1998) recommended that planned maintenance should be entrenched by the government in its policy and be adopted by institutional administrators to achieve and promote effectiveness and efficiency in learning

2.4.11 Modern Strategies of School Plant Maintenance

A number of problems have been identified as militating against effective implementation of planned, maintenance policy and programme in our institutions of learning. Some of the most serious of them are:

a. Poor or under fun ding of education, resulting insufficiency of funds to expand facilitate adequately to the increasing enrolment and constant maintenance problem.
b. The impact of current population explosion in our schools leading to over stretch of facilities
c. Red tape bureaucracy which emphasizes following of procedures, formalities, rules and regulations in Carrying out maintenance work that unnecessary delay.
d. The principal's style of administration as well as staff-principal relationship could often constitute a serious constraint.
e. Modernization and technology in educational practices which gave rise to new challenges in science technical and computer areas.

Inspired by the analysis of the problems that encumber the educational system and the need to effectively prepare for the challenges of the new century in Nigeria Fadipe (1998) proposed a five point modern strategies of school plant maintenance. The strategies are meant to ensure that all the school plants are put in functional state throughout the year.

The strategies identified are:

i. Psychological build up of the school market (staff and students)

ii. Periodic inspection and classification of damaged infrastructure

iii. Committee system approach

iv. Community participation approach

v. Financial maintenance cost internally

They were precisely explained below:

I. **Psychological build up of the school member:** This involves a conscious effort to inculcate in the staff and students in the school the spirit to respect, handle the school facility with special care and keep the beauty of the school. As observed Olutola (1989) that once respect for school property has been internalized the major battle in plant maintenance procedure would have been won. However, the school authority is charge with the responsibility of providing basic materials that would support this strategy e.g. providing trash trays for refuse collection.

II. **Periodic inspection and classification of damaged infrastructure:** An important modern strategy of plant maintenance is the need for the school head to ensure that the consciously make periodic inspections of the school's infrastructural facilities. Early detection of problems on the school site, the school furniture, the buildings including the classrooms, offices, laboratories and even the toilets will save a lot of problems identification of needed repair could be carried out by all staff and even the students so that could assist them in caring for manual work.

In order to leave any item out in the course of the periodic inspection, a checklist may be prepared where all items are listed and subjected to inspection. This is to ensure early

detection of damages or problems so that they may be attended to as soon as possible to save cost.

An important aspect of this strategy is that school heads should classify damaged infrastructure in order of priority for emergency attention or otherwise. For instance electrical and plumbing repairs because of their danger to lives and environment then facilitate where academic activities take place such as laboratories, classrooms, and workshops.

III. **Committee system approach:** One of the important administrative tasks of the school head is the proper assignment of responsibilities to his subordinates. This could be done for this purpose through the committee system approach. The system is an important strategy which could involves the recognition of a number of committee set up for a specific purpose. As a strategy of school plant maintenance, the school head can constitute an enlarged works committee made up of some responsible teachers and students from which a number of sub-committee are constituted accordingly. The sub-committees may include electrical, plumbing, carpentry/building, site maintenance, physical assets. All complaints on damage need for repairs should be directed to the appropriate committee for action. Each committee is expected to have a chairman and secretary respectively while the school head is expected to be the chairman of the works committee from where sub-committees are constituted.

All repairs in the school plant should be supervised by the appropriate committee since the repair to be done is carried out by the committee and the laborers and paid off. This strategy reduces the cost of maintenance drastically. Each sub-committee must report its activities to the works committee.

In a situation where by damages discovered are beyond what the school can do internally especially through direct labor, the school head is to arrange for the evaluation and collection of the damage which should be sent to the appropriate authority for action. Alternatively, arrangements could be made with special maintenance workmen to facilitate when fund is available. The school head must however, obtain necessary clearances before the repair are affected.

IV. **Community participation approach:** The need to enlist the support of the school immediate community members in the repairs and maintenance of school plant cannot be and should not be overlooked. This need is borne out of the fact that in the initial plant planning for the school, considered especially in the perspectives of pupils number, staff requirement and future growth.

Members of the community especially those who are members of the parent-teachers association or the (SBMC) committee of the school should be actively involved in the maintenance of school plant at minimum cost, the professionals among them such as the carpenters, bricklayers, plumbers, electricians. Should be co-opted into the relevant committees earlier discussed for professionals of the school head to educate them in the area of the importance of the school to them (as a social service) and for them to assist in keeping the facilities in good order.

V. **Financing Maintenance cost internally:** Money has been described as the greatest obstacles being faced by many school heads for maintenance purpose. It is also the greatest cause of distress in many educational institutions. That is why we need a modern strategy for plant maintenance to promote ability to raise enough funds internally for maintenance purpose. School heads are expected to be resourceful in fund generation to

be able to employ this strategy. Within the limits of government regulation of fund generation heads should aggressively generate enough funds that will assist in the maintenance of school plant. For example, the following are some ways through which funds for maintenance could be internally generated.

i. Appeal to philanthropists to donate substantially for repairs of school plant or to take up the maintenance of specific ones.
ii. Appeal to the PTA for assistance
iii. Sales of the school agricultural products-crops and animal products (poultry and piggery).
iv. Changes for the use of school facilities like halls, sports field.

School heads could add to the ways above and make sure they entrust people of sound moral character and hard working who can keep the trust

2.4 .12 The Role Of Provosts In Planning And Maintaining College Infrastructures

In analyzing the roles of provost in the management of college physical infrastructure, most authors such as Castaldi, (1994)and Ozigi,(1977) emphasized that the Provost is the key person who supervises and coordinates all aspect of college management, particularly physical infrastructures, personnel, finances, academic affairs, health, labor, games, and college community relations.

For instance, Ibrahim (2010) enumerated the specific functions of the Provost as follows:

i. The Provost is charged with the responsibility of seeing to it that essential equipment and materials are provided in adequate quantity and in good time
ii. He should also ensure satisfactory storage of various items;
iii. He should keep and carefully maintain a good register of all college equipment;

iv. H e should develop a good system of supplying, issuing, and distributing items from the college store and contractor;

v. The provost major task includes seeing to it that the buildings, grounds, furniture and other physical infrastructures in the college and well maintained and used for ensuring the health and safety of staff and students for the achievement of instructional efficiency;

vi. It is necessary for the provost in Nigeria to have a prepared plan of the college physical plant, with its prescribed specifications extension requirements and qualified personnel for its operation and maintenance; and

vii. It is also the provost responsibility to see it that adequate financial provision is made in the budget for effective operation and maintenance of the college physical infrastructures.

Discussing the roles of the college provost Ibrahim(2010) stressed that the institutional heads is responsible for major repairs reported to him by the personnel, while those that are considered major are further forwarded to the central administration for administrative support, in terms of money, materials, and personnel that will execute the repairs.

Other staff knows to carry much of the weight for the operation and maintenance of the college physical infrastructures, under the leadership and supervision of the provost is the custodial staff. The custodial staff includes hall administrator, matron, porters, cleaners, janitors, storekeeper and watchmen. Ibrahim (2010) pointed out that it is the duty of the provost to ensure efficient custodial staff, that respects and desire to keep the college physical plant clean, beautiful and attractive. They went on to stress that for the provost to secure such caliber of staff he should be aware of their qualifications and functions, as well as their material for working. They also hold the view that can have high grade materials such as hoes, cutlasses,

Buckets' Disinfectants to keep the environment clean or else maintenance progrmme may be in effective in the college system.

2.4.13 The Role Of Lecturers In Maintaining Infrastructures

It is the task of lecturer 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 student's educational horizons grow so that he is helped to see his work in perspective and understand the significance of it elements. Lecturer does not have one role, but many. He is a manager organizing his students so as to accomplish set objectives. He is a resource person providing students with information and able to guide them to other fruitful sources. He is what the French called animator, stimulating and arousing the interest of students so that they generate their motivation.

Lecturers as well as other staff must be involved in maintenance of college infrastructures. 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, Lecture Theater, games, library and accommodation infrastructures should likewise be monitored and reported by the relevant lecturers, most a time certain persons are charged with these responsibilities to report to the provost on regular basis.

2.4.14 The Roles of Students in Maintaining School Infrastructures

For information on management of school infrastructures, the Students have their own roles to play in the management and maintenance of school infrastructures. On their role in the management of school physical infrastructures, Ibrahim (2010) maintained that schools which

involve students in grass cutting, path hoeing, classroom sweeping toilet cleaning, tree planting and other duties connected with school plant maintenance succeed in maintaining a clean, beautiful, respectable school premises. Olutola's statement reaffirmed that effective management of school infrastructures 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 following:

i. Overall responsibilities for maintaining discipline in the school compound outside teaching hour of the school
ii. They are responsible to keep their hostel and the school premises clean
iii. Maintain discipline and order among themselves;
iv. 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;
v. All house captains and house prefect are responsible for the maintenance and welfare of their houses;
vi. Such prefects may punish students for breach of discipline, disobedience or violation of school rules;
vii. They assist the sick students to receive proper medical attention from the school dispenser;

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;

After the school hours the prefect will be responsible for supervising the smooth running of the school routine. For instance punishment of students, roll call, prep, bed check, light out, et***c.***

2.5. Time

This is measured in seconds, minutes, hour, days, weeks, months, years, decades and centuries, Olagboye (2004). The college system like any other level of the whole educational system operates on periodic basis. For instance, lectures are held on hourly basis while school calendar is on semester basis. It is logical that time is equally a very important educational facilities that facilitates effective teaching in the college. However, caution has to be taken to ensure that adequate facilities are made available for the achievement of effective teaching, and research for optimum production of well-groomed graduates from the Nigerian colleges.

2.5.1 Adequacy of Provision of Instructional Materials and Administration of Examination

Provision of adequate instructional materials facilitates and enhances effective teaching and achievement of educational goals and objectives. Provision of adequate instructional and examination materials for teaching and administering examinations facilitates favorable learning atmosphere in our colleges. In accordance with the opinion of Abdulkareem (2003), facilitation of favorable learning atmosphere in our colleges should go beyond giving a facelift to existing hostels or erecting new ones. College environment should challenge the mind of all residents. Both students and lecturers should feel that they are in a global competition for service delivery and the goal of Teaching-Learning in the college should go beyond marking scripts and later dishing out certificates.

Similarly, provision of adequate instructional materials, chemicals for science laboratories, technical equipment and other laboratory equipment are also very essential for effective Teaching, Learning and Research to take place. Other instructional materials necessary for Teaching and Learning include availability of current books, journals, magazines, computers

photocopying machines, internet facilities, language laboratories, workshops for vocational and technical education courses and so on.

In its editorial column written by Jega (2009) titled "Nigerian Universities", of the Daily Trust (http://allafrica,com/stories), the editor reviewed that Nigerian Universities are stocked with books and journals that are not just too old but whose contents are equally of no relevance to trends and discoveries in the fast changing world of science and technology. This is coupled with ill- equipped and over- crowded laboratories and obsolete teaching and learning materials.

In their own contribution, Ayeni and Atanda (2004) believe that provision of inadequate materials for the administration of examination is one of the causes of examination malpractices in the colleges of education. This therefore calls for a great concern in the area of provision of enabling environment, seating arrangement and adequate teaching, learning and examination materials for effective conduct of

Examination

2.5.2 Provision and Maintenance of Teaching Facilities in School

Teaching can be defined as an attempt to bring out desirable changes in human learning, activities and behavior. The aim of teaching therefore, is to influence learners to make those desirable changes in their behavior that contribute to better living. These changes include:

i. Can increase and store useful information and the understanding of basic principles in the subject matter
ii. Acquisition of skill abilities and habits for instance, psychomotor skills, the
iii. physical Competence required performing certain activities

iv. Possession of desirable attitude and ideas, such as developing satisfaction about learning outcosme or achievements obtained through the process of sharing meaning. Rapport (1995)

According to Bello (1999) teaching involves activities in which the learners participate so that they can understand the process and learn. Instructional materials or facilities are easily identified with direct teaching functions. They serve essentially as centers for learning and teaching in the school set up. Enaohwo and Efferetteya (1999) defined instructional facilities as a systematic way of designing, carrying out and evaluating the total process of learning and teaching in terms of specific objective to bring about more effective learning". Good learning situation are those that make it possible for students to use materials or facilities through which they can learn more effectively, teaching facilities in terms of textbooks, teaching aids and equipment are essential to effective teaching-learning.

The lists of teaching facilities that teachers can use are inexhaustible. The teacher's level of resource fullness, creativity and imagination is in fact, not limited. Teaching facilities will therefore, include all forms of information that can be used to promote and encourage effective teaching- learning activities. These are textbooks, supplementary books, workbooks, reference books, charts, programmed texts and non-printed materials like; film, filmstrips models, mock-up, slides, pictures, audio and videotapes, records transparent, globes, board and a host of others. There are also the range of teaching facilities such as science apparatuses and chemicals (NERC, 2000)

Gidado (2000) made reference to the study carried out in Kano on secondary grammar school administration revealed that most of the school were devoid of necessary facilities among which are the teaching facilities. Textbooks in form of teacher's guide and students' texts, for

example, are indispensable facilities in the school system, although a good and experienced teacher work successfully without a text, his tasks are made difficult as he is expected to use his initiative and creativity in planning his lessons. Teaching facilities are required for the various activities of the school programm as well as for the extra-curricular activities. To meet these requirements of the schools the Federal Government of Nigeria (2004) in the National policy on Education section 3 paragraphs has mentioned government commitment to ensure that all school are properly equipped to provide sound and effective teaching and is embarking on a scheme for the provision of inexpensive textbooks'. This is not an easy task and therefore the federal government was to make a provision of setting up of a National Committee to advice on the federal government.

Since inception, it cannot be said that government has not done so much everything. This indicated is in the National policy on Education. However; a little effort has been made by government to implement other policies in the National policy on Education, such as the open learning system, which is the informal system which has been incorporated into the formal system of learning nomadic education, special education such as centre of the disabled alongside with government at federal and state level has been implemented.

However, on the issue of the facilities, it has only been partially provided in some school, but nothing has done as stated in the policy in the area of implementation in the colleges of education. Science apparatus and chemical, Blunt et al (1999) also presented for categories of resources and facilities which are used for teaching and learning. These are:

(i) Reading materials

(ii) Audio- visual materials

(iii) Demonstration and experimentation materials

(iv) School community resources including personnel

Thus, most of the authorities cited above, have given ideas that can help us to understand the embracing nature and the potency of the concept of teaching facilities in school, for effective teaching and learning.

2.5.3 Uses of Teaching Facilities

Results from various research studies have shown that teaching facilities are facilities of teaching learning activities when properly used (Blount et al (1999). According to Agun (2000) teaching facilities are designed, produced, and used for the following reasons;

(i) The achievement of specific curriculum objectives textbooks and supplementary facilities

(ii) To encourage and promote self instruction i.e. programmed learning package

(iii) For enrichment of learning

(iv) To aid teachers presentation of the learning task

(v) To arouse interest and motivate learners. Most of his ideas about the uses of teaching facilities are in agreement with the principles of learning and motivation theorist discussed earlier in the theoretical framework.

(vi) Moreover, Alcon (1999) also enumerated fourteen uses or benefits of a wise use of various teaching facilities. These are listed below:

(vii) They provide for a direct interaction of students with the realities of their social and physical environment

(viii) They promote greater acquisition and longer retention of factual knowledge:

(ix) They provide objectivity for the study of a delicate

(x) They provide increased interest in learning

(xi) They stimulate interest of voluntary reading

(xii) They allow all members of a group the opportunity to share a joint experience

(xiii) They get and hold attention

(xiv) They reinforce verbal message

(xv) They bring experts and variety of resources to the classroom

(xvi) They provide for a direct interaction of students with the relatives of their social and Physical environment

(xvii) They provide integrated experiences that vary from concrete to abstract

(xviii) They are valuable for all age and ability groups

(xix) They facilitate attitude and behavior changes

(xx) They illustrate and clarify nonverbal symbols and images quantitative relationship .complex relationship, abstract concepts, spatial relations and specify detail.

The uses and benefits of teaching facilities enumerated above clearly direct one to Aliyu (2012) statement that the administrative leadership carried the responsibilities for obtaining and allocating teaching facilities necessary to promote educational programme development. It is therefore, the duties of federal and state government, Ministry of officials' school administrators to Endeavour to produce, select and distribute a variety of teaching facilities to all colleges of education in the zone, in order to ensure teachers and students' resourcefulness, creativity, and imaginative use of these facilities. This may be one way for ensuring effective teaching and learning at the colleges of education as well as to facilitating the achievement of the colleges of education goals and curriculum objective

2.5.4 Selection and Production of Teaching Facilities

Available, selection and production of teaching facilities as used in this study refer to rationale decision making processes reflecting the relationship between the curriculum, methods, teaching facilities, national and state educational objectives and the school physical facilities. In other words, the meaning of stresses the need to envisage the type of teaching facilities, method, and school physical plant that will facilitate the attainment of colleges of education curriculum; and its two national objectives which are preparation for:

(i) Useful living within the society; and

(ii) Higher education (Federal Government of Nigeria in the National Policy on Education-revised,2004)

The concept of teaching facilities availability, selection and production cited above has further made us to understand the need for ministry officials' educational authorities to adequately provide funds for teaching facilities for effective use and storage of teaching facilities in order to facilitate quality teaching. This may be one of the reasons why, it is often stressed that teaching facilities is an integral part of educational objectives.

Thus, teaching facilities availability, selection and production is appropriately done at two levels by curriculum developers and teachers in order to ensure quality teaching and learning. The first level according to Agun (1982) is the curriculum development level. At this level rationale and systematic analysis about the ranges and variety of teaching facilities and methods, to be used for effective teaching are made. Agun (1 982) went on to emphasize that at this level the main concern is to establish a relationship between the specifications of curriculum objectives and content, and the teaching facilities to facilitate achievement of stated national and

state educational objective. (Agun, 1982), went on to state that the second level is know as the curriculum implementation level. At this level teachers who are the basic key implementers of the curriculum are being encouraged to acquire basic skills in providing, designing and producing simple effective teaching, and facilities.

Agun (1982) emphasized the need to train and re—train teachers in the identification, selection of essential teaching facilities in order to make teachers more committed to the appropriate use of the variety of teaching facilities and methods prescribed by the curriculum developer sat the first level. Agun's view that teacher need to be trained in the selection, production and utilization of teaching facilities exposes one to one of the variable that prevent some curriculum intonations from being achieved, His point of view further creates awareness in one about the importance of educating teachers in skills, and knowledge for adequate utilization of teaching facilities and method specifies by the curriculum developers

2.5.5 Steps in the Production of Teaching Facilities

Steps for the controlling production of teaching facilities for each level of education are necessity. Agun (1982) enumerated very useful guidelines or criteria for the production of teaching facilities. These are to:

(i) Select specific teaching objectives that relate to the overall curriculum objectives to ensure effective utilization of teaching facilities in education.

(ii) After the selection of learning objectives, the producer must identify characteristics of the learners for when the facilities will be used. This criterion helps the producer to acquire vital information about the need, interest, background, experiences, teaching strength and weaknesses of the learners, to guide the producer in designing the type of teaching facilities and methods that will be suitable for effective teaching.

(iii) Selection the content of the message that the facilities will carry content should relate to the identified objectives

(iv) Selection the medium for presenting the message

(v) Determine the cost for producing facilities like textbooks, workshops, programmed texts, teacher manual and film.

(vi) Design and develop the facilities in the interest of students and the overall curriculum and teaching objectives.

(vii) Produce the facilities observing the rule of clarity, legibility, simplicity, accuracy, durability portability or manageability.

(viii) Test the facilities for effectiveness with simple population.

2.5.6 Adequacy and Maintenance of Teaching Facilities Production and Storage

In analyzing the uses of facilities listed above, Brown (1959) point out that these uses have enlightened one about their functions as the most basic substance of many experiences which both students and teachers undergo in the classroom. This may be of the reason why Knezevich (1969) and Ozigi (1999) emphasized that the educational authorities and school administrators carry the responsibility for the selection, production, distribution, and storage of teaching facilities for school. According to Agun (1982), for meaningful and effective production of teaching facilities, it is essential that facilities, materials, and equipment are available. He went on to stress that adequacy and maintained facilities should include recorded materials to be listened to film to be viewed, and for the demonstration and storage of such facilities. He pointed out that adequate space allocation is necessary for workshops and in—service training of teachers, school inspectors and other school officials.

Adequate facilities for maintenance production and storage can be established at the curriculum development and implementation levels. This according to Agun (1982) is to ensure adequate maintenance, production and utilization of teaching facilities for the attainment of the curriculum objectives. Educational resource centre should be providing useful facilities for the production of teaching facilities.

Agun (1982) further stated that the establishment of adequately equipped resource centers may provide the essential facilities to encourage the production, and use of teaching materials by both teachers and learners. Other facilities for production of teaching facilities are teachers centre. In educating and analyzing the view of Agun (1982) Brown (1999) maintained those resource centre's are places where variety of educational facilities and equipment are stored for adequate use and effective teaching and learning by both teachers and learners.

2.5.7 Provision and Maintenance of Classrooms/lecture theaters

A school building can have a significant positive or negative effect towards fostering a productive learning environment. Classrooms or Lecture theaters 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 infrastructures in any institution of learning. Student learns 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 or lectures theaters should be well designed in a comfortable and colorful manner to make students and teachers are 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. Lecture theaters should be

kept away from unnecessary noise and distractions. 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 school should possess three types of classrooms. These are permanent classrooms, the special subject classrooms are classrooms and laboratories or workshops

a. The permanent classrooms are places where students have their individual chair 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 boarding secondary school running the junior secondary school (JSS) system with four streams will have 24 permanent classrooms labeled junior secondary school (J SS). From 1A, 1B, 1C, 1D and so on. In case of higher institution can be inform of blocks, viz;

   Block A=4Classrooms

   Block B=4 Classrooms

   Block C=4 Classrooms

   Block D=4Classrooms

   Block E=4Classrooms

   Block F= 4Classrooms

   (Jedo,2007)

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 special 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, History, IRK/CRK and Social studies (jedo, 2007). To maintain classrooms infrastructures, the classroom needs to be clean by:
    1. Sweeping the floor
    2. Cleaning the door, windows, walls, ceiling etc.
    3. Repairing broken furniture and leaking roofs or blown off roofs for teaching and learning to take place effectiveness.

2.5.8 Provision and Maintenance of Laboratory/Workshop Infrastructures

There should be laboratories for the Sciences, that is Biology, Chemistry, Geography, General science and Physics. More also, there is the need for workshops for the teaching of such subjects as Fine Art, Technical drawing, wood work, Metal work, Music, Mechanics etc. Special subject classrooms are necessary because of the following reason:

a. Each specialist teacher is afforded the opportunity of adequate preparation.
b. All teaching aid in the room is permanent for particular subject. Such aids are easily and quickly displayed and well cared for
c. It makes the school infrastructures in the laboratories and workshops safe, secure and easy to maintain. This 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 classrooms. It is unfair and rather un economical at any time to put up buildings that cannot be used to the optimum.(Mutfwang, 2006).

2.5.9 Provision and Maintenance of Library Infrastructures

It is often said that the greatest benefit to students often 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 college library. The library is centrally located in the college 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; provision should also be made in the library for novels periodicals, journals, magazines daily papers and books on hobbies, sports, games 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 college library should be the care of college librarian who is the head of the library, the paid library attendants, the staff librarian and the provost (Jedo, 2007)

2.6. Adequacy of Learning Space

Learning area is very vital for consideration of teaching and learning before learning or modification or change of behaviors to take place. There is need to specify an area that would be suitable for effective learning situation this is called, academic learning areas, for instance from any disturbances and noisy areas which required thus:

(i) Size of academic learning areas should meet minimum standard specification;

(ii) Learning area should be conveniently located near related educational activities;

(iii) Academic learning areas should be situated away from noisy areas such as dining halls;

(iv) Design of learning areas should be compatible with instructional needs, teachers, and students interests. Umar (1998

After when, above factors been considered in providing and maintaining suitable learning facilities the next thing is too considered thus:

2.6.1 Special Learning Facilities

i. Special learning facilities such as libraries, laboratories, workshops, and other

ii. Laboratories that are needed should meet minimum standard by size;

iii. Gymnasium, athletic fields, and auxiliary facilities should adequately serve the needs of the learners or students.

iv. Libraries, resource, centre should be available appropriate and attractive space for reading and research etc.

v. Science and technology laboratories should be available sufficient space for group instruction, individual experiments and adequate lacked storage.

vi. Facilities for art should be sufficient to accommodate the program and equipment

vii. Storage for teaching staff and non—teaching staff materials in special learning facility areas should be adequate too;

viii. Design of learning facilities and instructional materials should be compatible with instructional needs or educational specification;

ix. Vocational programs such as Home management, Carpentry, workshops facilities should be housed in spaced that meets standard Sheingold,. (1992)

2.6.2 The Use of Books in School

Good learning facilities are those that make it possible for students to use books through which they can learn more effectively. Brown (1999) regarded textbooks, as the required books used by the entire class in studying a particular course or subject. He said that it does not imply that all learning activities should be geared towards teaching the contents of the book, or that it should be regarded only as one of the several useful materials that will aid in making lessons more exciting and interesting. He further emphasized the function of books as facilities of learning. He said that books save valuable time for teachers and students, for instance, most textbooks, are prepared to cover a stated syllabus. A review of the chapter organizations of different textbooks available will be of great assistance to the teachers and students in determining what unit or topic to include in his subject as well as the best or the most logical sequence they should follow. Furthermore, he said that books provide the necessary basic knowledge of particular subjects; textbooks provide a common experience for the class. He also said that they were readily available for students to read and update the experience and knowledge in the end he concluded by saying that textbooks ensure continuity of learning in case a class has a change of teacher. Books consist of textbooks, library book and stationary.

It is an accepted fact that books generally and textbooks in particular are major sources of imparting and acquiring knowledge throughout the world. Learners like the post secondary students are supposed to read relevant textbooks and other useful publications in order to broaden their minds and develop their useful publications in order to broaden their minds and develop their intellectual Ogedele (1998) noted that the achievement of the overall goals and objectives of education in Nigeria revolve around the ability of the learners to tap the various opportunities offered by the school and environment. One of the opportunities offered by school plant facilities such as library and books cannot be overemphasized. This perhaps is the reason why Nwagwa (1999) and Adesina (2000) argued that the quantity of the educational facilities available within an educational system have positive relationship within the standard and quality of that educational system.

2.6.4 Provision and Maintenance of Information Communication Technology (ICT) in School

The concept of information, communication and technology, is defined as knowledge acquired or supplied about something or somebody (Encarta Encyclopedia, 2007), also defined information as anything that add to existing knowledge it means information must have value and people must be prepared for such services. Agun (2000) that information communication and technology can be equitable with any national economic resources. He viewed information as a necessary tool for planning, policy formulation and decision –making in all system of national development". The view of these scholars could be said to have identified information as facts, or knowledge, put together to promote human resourcefulness socially, economically, scientifically and technologically.

Lucy (1998), defined it as acquisition, processing, storage and dissemination of vocal pictorial textual and numeric information by a micro electronic based combination of computing and telecommunications", where as Onanogbo (1990) noted that it is a new revolution which penetrated almost all field of human activity thus transforming our economic and social life"

Information communication and technology (ICT) as explained by Madu and Adeniran (2000) are made are made up of low and high technology. The low technologies includes tools and machines e.g. typewriter, offset, printing machines, microfilm reader projectors, staplers, paper cutters library cat agues, radio and television etc. The difference between the two is that while the low technology only aids production of projects information, the high technology, carries information which can be manipulated, retrieved and or exchanged. It is also possible to interact with the high technologies.

From the above definitions it means that the concept of information communication and technology (ICT) could be put together to means the new media tools applied to information services delivery which encompasses to collect organize, retrieve disseminate and perverse information. It is generally agree that information is the communication of knowledge, ideas, values and traditions, information and communication thus serve as the power to help individual and the society achieve greater access to knowledge and ideas. It is also a new, faster and better method of teaching and learning.

The primary and traditional roles of college of education in general are the transmission of knowledge and the training of minds. Another unique role of colleges of education is to engage in basic research that leads to the advancement of knowledge and economy (Bako.2005). Through research and its result colleges of education and other tertiary institutions are expected

to contribute to the improvement of the quality of life and to social and technological change (Alo, 1995).

Information communication and technology is transforming the way in which research is conducted. Researcher and students in developed countries are now able to devise their own strategies, manipulate information in anew way and study issues which previously would have been difficult to address owing to the variety of the data. They now have access to variety of sources that they can manipulate, share and discuss with their colleagues all over the world through the use of information communication technology (ICT), (Sangowosi, 2003). However, according Ibrahim (2008) some tertiary institutions such as universities have made giant strides in campus-wide area networking and e-learning courses deliveries. For example, the Obafemi Awolowo University (OAU) boasts of having the best- developed ICT system in the country with its own VSAT access to the internet and campus-wide internet. The Nnamdi Azikwe University, has achieved a better radio for P.C to student radio. Universities like IBB Maiduguri, Bayero, and Katsina state, Usman Danfodio and University of Jos. All these northern institutions have developed e-learning programmes for several departments and several colleges and polytechnics and striving to sue ICT in learning, teaching and research.

Some universities offer degree programmes via the internet, in Nigeria the National Open University of Nigeria (NOUN) is an example. Learners can study where and when they have time. ICT facilities the development of huge libraries the (web) that can be accessed by large numbers of people, it makes knowledge to be shared within a short time disregarding the distance across fertilization of teaching materials and methods are possible. Below is a list of different type of audio visual aids that can be used to maximize learning out comes. Overhead projector, television, UCR, Video projector, digital cameras, World Wide Web, slide projector,

film strip projector, simulators, graphical interfaces, electronic board, computer, one or two way video, CD player, satellites, internet local area network (LAN) interactive television, digital camera. Encarta Encyclopedia (2007).The following are among the three recent and common ICT, web based teaching and learning platform. Blackboard (Http//www blackboard.com), desired learn. (http//www//wwvebct.com)and webs (http;//wwwebct.com).All these solutions serve as based and allow access through a web browser to provide e-learning solutions through the web. All have the capacity to;

i) Provide courses materials

Manage enrolment and registration

i. Develop evaluation materials, such as quizzes test or assignments.
ii. Communication with instructor and students online through an announcement section, discussion n on board, e-mail, real time chat session or classrooms, and interactive white board.
iii. Take and save notes about course
iv. Manage grades and provide the grades with the students.
v. Present important dates through a calendar tools.
vi. Provide links to related web sites. Encarta Encyclopedia (2007)

In another development Altan (2006) observed that information communication technology helps to:

Direct class teaching: when a board cast programming substituted for teachers on temporary basis

(a) School broadcasting where board cast programming provides complementary teaching and learning resources, not otherwise available.

(b) General educational programming over community, national and international stations, which provide general educational programme (Hassan 2008).

Skill knowledge of students is widening by the use of ICT, students are able to read and printout expects authors and educationalists. Submission through browsing, many students are able to write their topics research questions and literature review through browsing.

2.6.5 Problems Militating Against Provision and Maintenance of Information Communication and Technology in Nigeria Schools

ICT have been describe as an effective tool for learning facilities in school generally, therefore there is a lot of problems which deprive the institutions from benefiting from it, thus, lack of good maintenance, poor storage, and other ones which are as include:

Power supply has been a great challenges which has devastated so many aspects of development in colleges of education; ICT is well available but cannot be used for effective teaching and learning moreover for administrative and educational purposes which indicate that ICT undergoing a lot of difficulties. Due to lack of constant power supply no one can ouch for the safety of computers, hardware because of power failures and fluctuations. The cyber cafes that use generators for their operations change exorbitantly and are not always at service due to one thing or the other. This has made it impossible for the colleges of education students and lecturers to publish and contribute through on line like others developed colleges.

Secondly, problems which hinder the development of ICT in colleges of education are shortage of human resources which limit the effectiveness of ICT for teaching and learning in our schools. There is lost of personnel or expert to develop courses materials or wares that are

needed. There are not enough operators that can involve in the training of people for spreading the knowledge for general benefit to staff and students.

Another problem for the maintenance of ICT in the colleges or school is environmental factors. They make use of computer which is sensitive to heart, but, humanity, vibration and mechanical shock. The environmental hazards in Nigeria and North- west in particular include heat, dust, and computer is exposed to virus and breakdown easily which discourage people that are into internet business. Last but not the least poor funding of education in Nigeria; makes ICT facilities out of reach of many colleges of education students and lecturers. Some colleges that wish to have ICT centre are unable to do so because of the cost of establishment. And those that are able to establish it cannot maintain it, students and lecturers do not have easy accessibility to ICT service (Arzika, 2000).

2.7. Staff Welfare

Welfare, according to the Encarta Dictionaries (2009) is the efforts, especially on the part of government and institutions, to ensure that the physical, social and financial conditions under which people live are satisfactory. In this case, this study tries to find out the opinion of staff and students on infrastructural, teaching, learning, welfare and recreational facilities under which both the staff and student in Nigerian colleges function.

In Nigerian colleges and other level of educational system, absence of poor welfare service or lack of it is one of the attributes of motivation to lecturers and teachers in the educational system. For instance, Sadiq (2010) emphasized that teachers are not adequately motivated to put in their best (effective teaching). In support of this statement Obanyan (2000) opined that for the teachers to be effective, they require proper trainings and orientation not only for the growth of the education industry but also their professional growth. Thus, the need for

continuous training and orientation of personnel (capacity building) in educational planning and management for heads of educational institutions.

Naturally, provision of adequate physical, social and financial conditions automatically motivate individuals to perform better at work. Alternative, where workers are poorly or inadequately motivated, the tendency is for them to seek a greener pasture elsewhere within or outside the country. Such is the situation in Nigerian Colleges of Education.

In every organization, all members strive to enjoy certain basic and essential welfare services. In the colleges, such services include prompt payment of reasonable and realistic take-home salaries and other basic allowances, provision of good health care delivery centre's, provision and maintenance of bore-holes for good water supply, provision of befitting staff accommodation, regular electricity supply, and provision of sporting and recreational facilities. Other welfare services that staff can enjoy which has impact on their service delivery also include provision of training and re-training opportunities along sponsorship to national and international conferences, workshops and post-graduate programmes. These programmes would enhances, job performance and boost the morale of the beneficiaries. This directly or indirectly serves as welfare packages to the college lecturers and since quality of teachers is one of the determinants of quality in the educational system as no educational system can rise above the quality of its teachers (Chika and Egenti, 2010).

In addition to this opinion, Nwadiani (1999) opined that the college system was decaying and that non-performance of teachers (lecturer) was caused by such factors as feeling of insecurity, poor motivation, ignorance of laws guiding their employment, poverty, lack of instructional materials and poor funding. The researcher however firmly believes that quality

teachers increase productivity which is measured in terms of quality teaching-learning process supported by adequate facilities and its effective maintenance.

In describing the welfare service in the colleges, Odebiyi, Aina and Ishola (1996) felt that the irregular supply of water on campuses and epileptic supply of electricity affect the social being of both lecturers and students alike and this affect the optimum performance of teaching and learning. Accordingly, the dwindling funding of the Nigerian colleges year in year out has led to the poor state of these institutions. In fact, Odebiyi et al (1996) put it that the poor state of the colleges has led to a lot of staff exodus (brain-drain) in the college system.

2.7.1 Students' Welfare Services

Welfare services on the part of the students include provision of adequate health facilities, accommodation, toiletries, water and electricity, sporting and other recreational facilities eateries, conducive campus environment, counseling and human development centre and other Student support Services (SSS) a department newly introduced by the National Universities Commission (NUC) in the commission itself. This department was precipitated by the 2007 reform of the education sector.

The main objective of the department is to initiate programmes that will eliminate current and potential social ills pervading the entire spectrum of the Nigerian University system (NUC, 2009. According to the commission, each university is to ensure that the programme is implemented by reflecting it in the following social welfare activities:

i. Provision of adequate counseling and human development centre.
ii. Ensuring that there is a free-flow of communication on the campus
iii. Provision of hostel accommodation, sporting and recreational facilities.
iv. Provision of well-equipped university clinic

v. Admission, examination and results

vi. Provision of entrepreneurship centre

vii. Support for- indigent and brilliant students

viii. Conducive campus environment

i. Registration of students (Okojie,2009)

The realization of these welfare services is capital intensive. The financial implication is also high. However, its realization would facilitate Teaching and Learning which of course depends on adequate provision of facilities.

Going down the memory lane, the onetime Minister of Information and Communications (Professor Akunyili), at the 39th convocation lecture of the University of Nigeria, Nsukka, recalled that there was availability of Teaching- Learning equipment, highly nutritious food, comfortable accommodation, very studious students in the Nigerian Federal universities. Then students hardly felt sick due to availability of good food they ate, water they drank and good hostel accommodation. The colleges and lecture rooms too were not over populated when compared with what is presently obtainable (Daily Trust, 2010). The adverse situation prevailing on our present day universities in the view of Okpakwu (2004), has negative impact on teacher-student interaction, slow learner are often unattended to and this breeds examination malpractice.

This problem is a sort of chain reaction because; primary school set the tone for large classes in secondary and tertiary institutions which lead to stretching of facilities and teachers overcrowding which in turn leads to epidemic in some cases.

In another development, the condition of accommodation and state of equipment in the colleges is very sad in some of the college's obsolete equipment of an engineering workshop, a

crowd of students in an hostel and students receiving lecture outside the classroom without desks for writing. Assimilation and concentration are hampered since effective Teaching and learning cannot take place in this type of situation

2.8. Provision and Maintenance of Recreational and Game Infrastructures

Recreational activities are part of the college system. Care must be taken to give it 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 field of sports, athletics and games. The college is bound to have a sufficient area as play ground, which should be properly developed, labeled and made suitable for the free use of pieces of apparatus,(Ibrahim, 2010).

In educational institutions, the following recreational activities are necessary in order to cater for all sundry, these are:

a. Athletics: track and field activities institution
b. Ball Games: football, hand ball, netball, basket ball, law tennis, table tennis badminton, etc
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 part of the teachers in charge and the heads of institutions. Students should be made to compete among themselves and with outsiders. Sport and games are in educational institutions to make students use their 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 (Mutfwang, 2006).

2.8.1 Classification of Recreational Activities

The diversified nature of activities that come under recreation has instigated many writer to attempt classiying recreation into groups of various kinds

Classification Based on purposes and place of performance:

i. cultural recreation or art, these include: drama, opera, singing and dancing
ii. social recreation includes: dining out, visiting the public places and going to parties
iii. Sports and physical recreation include: games, and informal play.
iv. country side recreation include picnicking and camping
v. holiday and tourist recreation.

Active and Passive Recreation

Based on the efforts that is required for participation.

i. Active pursuits involve strenuous participation, such as required in sports.

ii. Passive pursuits make for fewer physical demands such as picnics and sight seeing

Formal and informal Recreation

Based on the degree of organization that is required for the pursuits.

i. formal pursuits require high level of organization these include mainly team sports like football, hockey, handball and volley ball.
ii. informal pursuits are essentially unorganized such as picnics, likes, fishing expedition and strolling

Outdoor and indoor pursuits

The major determinant here is location of the facilities that are required for the pursuits.

i. Outdoor recreation is perform outside a house or a building

ii. Indoor recreation is performed inside a house or a building. There are some border line activities that can take place either outdoor or indoors. Basket ball court are typically indoors yet on occasion are outdoors, track activities are typically outdoors, outdoor recreation obviously requires space and resources, some time large quantities for its enjoyment. For the purpose of this study the outdoor and indoor classification has been adopted since the major determinant is location which can be easily and not human factor Wosilat (1984)

Traditional Recreational Activities

Ojo (1998) has attempted to categories traditional recreation activities based on organization and places of performance. These include:

i. home based recreational activities held in compounds or along verandahs such as the Ayo games, and storytelling accompanied by dances in the evenings.
ii. activities associated with social groups such as age mates and these include wrestling in the city or village square.
iii. recreational activities organized by professional groups in the form of annual festival such as fishing and hunting festivals
iv. activities associated with religious practices which include singing, drumming and dancing.

2.8.2 Types of Recreational Facilities and Space Allocation by NUC standard Guides

Recreation facilities are considered under communal and social service and facilities in the NUC standard guides for university planning in Nigeria. The facilities include the following

I. Students **common rooms General or students 'centers:**

Usable area per enrolled student of the total population (F.T.E) is 0.76m2, within this figure and allowance for students, union offices, together with indoor recreation facilities, common rooms and bars.

These should house facilities, such as television lounge quiet lounge snack bars and games room for the purposes of this calculation a hall of residence of 500 students has been assumed, for non-residential students allocated to each hall producing a total figure of 667 students per hall. Usable area FTE student is 0.57m2.

a. Large Hall

It is assumed that the hall will accommodate up to 1,500 people using loose seating's and will also be used for banquets, dances and ceremonial occasions. Usable area is 0.20m2/ FTE.

b. Indoor sports Hall complex

The provision assumes that, the following facilities will be accommodated within the main hall of the sports hall complex-indoor hockey, handball, five basketball, badminton, and indoor tennis and gymnasium facilities. Usable area/FTE IS 0.20m2

c. Outdoor Sports Ground Areas

Catered for, foot ball, hockey, cricket, athletics and lawn tennis, usable area for the total population is 19.00ha

d. Outdoor pool of full Olympic standard (50x20) m2

It is assumed that the pool will be planned adjacent to the sports hall and share the changing room facilities. Usable area(total is 0.5ha)

e. **Other Include:**

a. Zoo area is 5.00ha

b. Museum-Adcock

c. Art gallery-Adcock

d. Staff common rooms to include recreation facilities and other usable area are 0.35m2/member of staff.

2.8.3 Planning and Maintenance of Sport Facilities in School

The most important thing to do initially is to organize the different stages of building process in which sport facilities are made; planning stage where measurement and location are defined in relation to the sport activities and targets, preliminary design stage in which partial and distributive characteristics, general criteria for technological and building choice are fixed; feasible in which operational and maintenance aspect have to be considered in order to reduce operating and minimize the global problems.

Open-air sport facilities must not only give young people the chance to do some kind of sport and physical activities, but they must take into consideration also older and disabled people striving for a health life and not despising competition. The planning of available sport facilities must be based on the concept of facilities as a system and of sports as practices and service within a rational organization of the space and areas at one's disposal. Generally, it is enough for a district or school to have 1or2 multi- purpose fields with synthetic floor-standard measures 40-200; with lighting and wire-net fencing-where many sports can be done such as five-a-side football, handball, volley ball and other gymnastics activities; generally, structures such as dressing. Rooms, bath rooms, and terraces for spectators are not included in the plan of the school facilities, these being mostly used by young people living in the school. If, however, the facility should also dispose of dressing rooms and sanitary services which are transportable and

usable in others places and for other events, as far as maintenance is concerned, it is necessary to employ materials which don't require particular maintenance and which can be easily operated. There will be a synthetic permeable floor on a draining foundation that can quickly discharge a great amount of water, there will be flood light on12-15m piles for average lighting of 80lux, and there will be a 3.00 or 4.00m high plastic-coated wire-net fencing.

2.8.4 Provision and Maintenance of Sport Facilities

Sport Facility with football ground for competitions, running track for fast running, boards and throwing circles, football ground for training purpose and multi- purpose field with synthetic floor. This type of facility suitable for school and smaller middle towns where football is the mai sports at the same time; however, it allows where football is the main sports at the same time; however, it allows doing some track and field athletic and teaming sports such as volley ball basket ball and hand ball.

These could be the following standard requirement;

A regular football ground -100,00 x60.00m with grass floor and automatic irrigation system divided into sectors and fold-away irrigators running track for fast running.

Long jump and high jump take- off board's discussant hammer throwing cycles;

A 90x50m training field with either floor, equipped with lighting system for nocturnal training session with an average lighting of 100 level,

A 40X20m multi-purpose field with synthetic floor

A terrace made of prefabricated element for about 400 spectators;

A building consisting of 4 athlete dressing rooms 2 referee dressing-rooms technical rooms, first aids store-rooms warehouse bar and ticket officer schiffers (1999).Separation ways for

spectators, athlete, and referees. The wire net fencing is at least 2.5m high from the walking surface.

2.8.5 Sport Facility Maintenance and Operation in Schools

It has only been within the last five or six years that value analysis has been taken into consideration already at the planning stage of the facilities. In addition, sport activities are more and more considered an opportunity to be offered to every citizen not only students and staff are well aware of the important of this field. Whether it is on their own or together with pubic- law corporation's private enterprises demonstrated a growing interest in the providing and the following operation of sport facilities

2.9 How to improve facilities through Effective Administration and planning

According to Ibrahim (2010) the following are expected to hold in the modalities on how to improve effective administration and planning in an institution:

to sustain NCE programme in Nigeria adequate financial and human resources should be made available and any act of mismanagement of infrastructures should be checked and prosecuted doors, windows, walls and roofs should be of material and finishing requiring minimum maintenance; outdoor light fixtures, electric outlets, equipment and other fixtures should be accessible for repairs and replacement; classroom floor coverings should be the type which requires minimum care ;ceilings and walls should be the kinds that are easily cleaned and resistant to stain; built-in equipment in the laboratories should be designed and constructed for ease maintenance; walls, Ceilings in specially designated areas should be the type that can be s easily cleaned recreational areas should be kept clean always; adequate storage space with water and drain should be accessible all area ;adequate electric outlets and power should be available in every area to permit routine cleaning; assess streets should have sufficient signals or signs to

permit safe entrance into an exist from college compound; sidewalks and steps should be protected by proper signs and signal, students' play areas should be segregated from vehicular traffic and pedestrian walk ways.

2.10 Review of Empirical Studies

Arogunde Babatope work on the problems of facilities in south west of Nigerian Universities. A self designed instrument tagged "Problems of facilities in universities Questionnaire (PFUQ)" was used to collect relevant data for the study. The data collected were analyzed using frequency counts and percentage scores. There research questions were formulated to guide the study, the findings shows that the financial support to the universities was not adequate, the universities were not provided with adequate facilities while students and staff maintenance culture contribute to high destruction of the available facilities. Based on the findings it was recommended that the government should provide adequate funds to the universities in it annual budgetary allocation. Besides, adequate provision of facilities should be provided while students should be well educated on how to maintain available facilities in Nigerian universities.

Kansanmi, Joy Olaitan, an assessment of the management of school facilities in Kaduna State Secondary Schools. The researcher used survey method in order to describe events and situations found at various schools. She used checklist of assessment in the questionnaire in respect of respondents opinion so that it will enable the researcher to elicit the responses accordingly in the statistical tool the researcher used simple frequency and percentages for analyzing the data collected from the respondents. The main findings of the researcher showed that some schools have the available facilities, while others did not have enough as stated before. Most of the general responses from the respondents on facilities in school showed facilities

available to some extent while in school facilities were inadequate, even the available once were in critical condition, they renovation, replacement and reconstruction most especially in the rural secondary Schools. The researcher carried out a good research in the state but the only problems was that she did not state the conditions and level of private Secondary School. So that she may compare between public Secondary Schools and Private Secondary School in terms of availability of the facilities.

Secondly the researcher did not find out the facilities that are hazardous to children, likewise she did not find out the resources provided by Government, school manager or individuals or communities, this supposed to reflect on the source of findings. Lastly, the funding of secondary School can be enough to provide and maintain the facilities for the daily routine activities or it suppose to be increased. All these were not reflected in the major findings.

Maina, (2006) conducted a study on "Assessment of the provision and maintenance of teaching and learning facilities of agricultural Science Secondary School in Zaria metropolis. The researchers used survey method of design for the study. It was considered suitable due to the nature of the research that made use of sampled opinions for measuring respondent opinion and making generalization in the entire population. The researchers used self developed questionnaire for data collection which was validated and reliable through the use of pilot test. The researchers came out with the following findings, that; the facilities for teaching and learning Agricultural Science were inaccurate

The major sources of these facilities given by the government and managers were not maintained

Finally the respondents did not know who the individual responsible for the maintaining of these facilities, whether it the government or school managers'

More also a report of statistical survey of infrastructural facilities in state government owned primary and secondary schools in Ondo state was conducted by the ministry of economic planning and budget, research and statistics department Ayanniyi (2006). The survey appraised the status of infrastructural facilities in state government owned primary and secondary schools in terms of availability, quantity, functionality and adequacy. The shortfall/ gap in the supply of these facilities and the ones requiring immediate rehabilitation are presented as part of the report. The report is in two part i.e part 1: summary of infrastructural facilities in primary and secondary schools on local government basis (Tables1—36). Part2: Status of infrastructural facilities in each school (Tables 37—72). Below are the findings of the report:

Total number of schools and students enrolment.

There are 1,164 primary schools, 300 junior secondary schools and 297 senior secondary schools in the state. The total enrolment in primary school was 459,521 as of 2008/2009 academic session; this gives an average of 395 pupils per primary school. The total enrolment was 136,203 for junior secondary schools and 117,201 senior secondary schools which gives an average of 454 and 395 per school respectively.

i. Schools by period of Establishment

The distribution of primary schools by period of establishment is as follows:57% (before 1960) 3% (1960-1969) 21% (1970-1979) 10% (1980-1989) 6% (1990-1999) 3% (2000—2009) The figures for junior secondary school are : 8% (before 1960) 7% (1960—1969) 32% (1979—1979) 41% (1980-1989) 2% (1990-1999), 9% (2000—2009). While corresponding information for senior secondary school 9% (before 1960) 7% (1960—1969), 28% (1970-1979), 34% (1980-1989),3% (1990-1999) 19% (2000-2009)

i. Accessibility to schools

Approximate land area served by a school in each local Government Area (in square kilometers) and the approximate distance to get a school both primary and secondary. The data shows that approximate land area served by a primary school ranges from 4km2 in Akure south LGAto27km2 in Ose LGA while land area served by a secondary school ranges from 11km2 in Akure south LGA to 154km2 in Idanre LGA.

ii. Class rooms by Period of Construction

There are a total of 11,847 classrooms in the I,164 primary schools giving an average of about 10 classrooms per school,17% of the classrooms were build before 1960, 7% (1960—1969), 15% (1970-1979), 14% (1980-1989), 14% (1990—1999), 34% (2000-2009). The available classrooms represent about 72% of the classrooms required based on the UNESCO Teacher, Student Ratio (TSR) recommendation of teacher to 28 pupils (a teacher usually handles a class) There are 2,711 and 2,753 classrooms in the junior and senior secondary schools respectively in the Junior secondary schools, 4% of the classrooms where built before 1960,13% (1960 –1969), 21% (1970—1979),25% (1980- 1989), 15% (1990—1999),22% (2000-2009).The corresponding figures for senior secondary schools are 5% of the classroom were before 37(2000—2009).

iii. Office-Accommodation

82% of the primary schools in the state have head masters office, 70% of junior secondary schools have principal's office and 52% have staff rooms while 88% and 64% of the senior secondary schools have principal's office and staff rooms respectively.

iv. Health Facilities

Health facilities in primary, junior secondary and senior secondary schools in the state, out of the total of 1,164 public's primary school, less than 1% have school clinic 86% have first aid boxes, 7% have wash hand basins, while 37% have Refuse bins. For junior secondary schools 2% have school clinic 76% have first aid boxes, 61% have wash hand basins while 56% have refuse bins. For senior secondary schools 6%have school clinics 78% have first aid boxes, 62% have wash hand basins while 59% have refuse bins.

37% of primary schools have potable water source within their premises. The corresponding figures for junior secondary schools and senior secondary schools are 42% and 52% respectively. In case of sanitation 37% of primary schools have access to functional sanitary means of excreta disposal. The figures for junior secondary schools and senior secondary schools are 66% and 65% respectively. As regards to solid waste disposal, majority of schools make use of dumpsite while few make use of incinerators.

v. Electric power supply

10% of primary schools are connected to power Holding company of Nigeria (PHCN), 5% makes use of generating sets, 4% use both, 1% use solar and 80% have no source of power supply. 45% of public junior secondary schools have access to PHCN,12% make use of generating sets, 20% use both,2%have solar while 21% have none. 42% of the public senior secondary schools have access to PHCN, 15% make use of generating sets, 24% use both,2% use solar while 16% have no source power supply.

vi. Recreational Facilities

88% of primary schools have playgrounds 3% have school halls,1% have table tennis facilities and 18% enjoy the services of food vendors or canteens 98% of public junior secondary

have playgrounds, 51% have school halls, 6% have table tennis facilities while 49% have access to food vendors or canteens and 3% have swimming pool. The corresponding information for senior secondary schools are: 95% have playgrounds, 66% have school halls 9% have table tennis facilities while 51% have access to food vendors (canteens) and 1% school have swimming pool.

vii. Libraries and Laboratories

48% of junior secondary schools and 68% of senior secondary school have libraries. 42% of junior secondary schools have at least a (subject) laboratory. The figures for senior secondary school are: 74% of the schools have at least a subject laboratory. 3% of laboratories in junior secondary schools were rated as well equipped, 54% fairly equipped 43% not equipped. For senior secondary schools well equipped 6% fairly equipped 66% and not equipped 28% (Rating was done by the respective school authorities).

viii. Information Technology

18% of primary schools, 78% of junior secondary schools and 70% of senior schools have computer

ix. Teaching Aid

The major teaching aid in primary and secondary schools is chalk board.

x. Classroom Accommodation

A ratio of 52 pupils to a class room on the average in primary schools, a ratio of 59 and 49% students to class room in junior secondary school and senior secondary school respectively

xi. Classroom Furniture:

58% of primary school pupils have seats while 59% have desks. Only 61% of junior secondary school students and 65% of senior secondary school students have seat and desks.

xii. Hostel Facility

94% of junior- secondary school operate day system only, 4% operate both boarding and day system while 2% operate boarding only. For senior secondary school 94% operate day system only, 5% operate both boarding and day system while less than 2% operate boarding only.

It was further, observed that some schools did not have building of their own and are using rented apartments or makes shift facilities and worship centers.

Below is the recommendation of the survey report:

a. Recreation of the identified structures that are in a state of disrepair
b. Provision of the identified short falls in infrastructural facilities.
c. Permanent sits for schools that are using rented apartments worship centre's and make shift facilities
d. Perimeter fencing of all public primary and secondary schools in the state

Welfare services on productivity of Academic Staff in Colleges of Education". The study was designed to establish the impact of staff welfare services on productivity in two colleges of education. Two research question and one hypothesis were formulated to guide the study. The Federal College of Education Okene and Nwafor Orizu College of Education Nzugbewene used in the survey design type of study. A sample of 375 academic staff from the two colleges was used. The tested hypothesis revealed that there was no significant difference between the opinions of the staff in both institutions with regard to the impact of welfare service on the academic staff productivity in the two institutions.

Another study was conducted by Olanike Kehinde,. and Ebo, . (2010) studied the effect of job satisfaction on job performance of teaching staff in tertiary institutions. The problem of the study was to determine the relationship between job satisfaction and job performance, in

higher institution of learning. It employed the survey method, use structured questionnaire with likert scale having seven options. The target population was 414 staff of two colleges in covenant university Ota. Stratified random sampling used to select two hundred and twenty respondents. Two hypotheses were formulated on the effect of job satisfaction and job performance in the university. The study used remuneration and communication variables to measure job satisfaction while teaching effectiveness was used to measure performance it also reveals that satisfaction. They study recommended staff training and retraining among others to maintain teacher's efficiency. Aliyu (2012) carried out an analysis of management of funds allocation to Federal University in Nigeria (2005-2009). The study was descriptive and inferential statistical methods were for the study. In addition frequencies and simple percentages were used to give a general description of the data obtained and presented in tabular forms. One way analysis of variance (ANOVA) statistical method was adopted due to the multiple nature of the variable involved. The result showed that adequacy of the fund to staff development received a high percentage with the exception of the item on sponsorship of staff oversea. This aspect recorded 38.3% which is very low. Therefore, staff (academic and non-academic) needs oversea sponsorship for further studies, conferences, workshop, in order to keep abreast with happenings in the wider world, this enhancing teaching and learning. Ibrahim (2010) carried out a study on impact of school plant provision on the management of teaching and learning in secondary school in Taraba state. The primary purpose of the study was to find out whether negative impact of school plant management and planning on teaching and learning in secondary school in Taraba state. The study was a survey method. It covered all public secondary schools in the state. T-test statistical technique was used to analyze the data collected to answer the questions, raised to guide the study. The results showed that school facilities were in adequately managed.

Maintenance was the most prevalent practice in the schools; these create negative impact on student's performance. Based on these results, it was recommended that Taraba state government should make efforts to provide the secondary schools with adequate school facilities while school managers on their part should try to keep on maintaining and managing the little facilities given to their schools. The ministry of education official should supervise secondary schools on regular basic so that they will serve and or inform the government with what is going on in school.

Sani (2007) investigated the relationship among school plant construction, utilization, maintenance and school effective in Kebbi state secondary school in Nigeria. He used stratified sampling to select 26 out of 41 secondary school deliberated sampling for all the principal is and proportionate sampling techniques to select 587 out of 850 teachers in the selected schools. He used a combination of WAEC Result Analysis format, observation, inventories and questionnaire to generate both quantitative and qualitative data. He applied multiple regression and Pearson correlation coefficient to test his hypothesis. He found that there was a significant maintenance and student's academic performance, students conduct and school community relations with calculated r-values of 099,098 and 0.98 respectively.

Wosilat (1984) conduct her research on planning for recreation facilities on Nigerian University campuses proposals for ABU main campus The researcher formulated four research questions with the following findings

I. Facilities for staff recreation are located in staff quarters or in academic areas. For example the senior staff club in university of jos is located within the staff quarters, while the senior staff club in Ahmadu Bello University main campus is located within the academic area. This finding may

be related to the fact that most staff members are expected to be mobile, there fore location should not impose a constraint on use of facilities.

i. Facilities for student's recreation are located in academic area or within student's residential areas. The academic area are often close to the students, hostels, therefore students recreation facilities can be easily reached by the students whether located in academic or residential area. Example include the students, centre in the University of Jos which is located within students residential area, while that of ABU Main campus is located within the academic area, students common rooms are generally parts and parcel of the students hostel

ii. Central recreation facilities are located in central core academic area or near students residential area, these facilities include outdoor sports ground, swimming pools and assembly halls which a commonly used by both staff and students. The major factor governing such location is accessibility to different user especially the students who are mostly pedestrians, since most staff members are mobile they can afford to use such facilities if they are Interested even if much facilities are not located close to their place of residence.

Another research by Ipinniwa (1999) in planning time activities for Zaria residents assessed the facilities available for recreation using the activity system concept he analyzed the behavior patterned pated the people, he then went on to make proposals based on users preferences and anticipated demand..Furthermore, a study on provision of recreation open spaces for Ilorin, Alhassan (1999) evaluated the existing facilities identified the recreation potentials, present and future demands Hierarchies of open spaces were then proposed based on these findings.

Bower and Burkett (1999) investigated that effect maintenance of physical facilities on student academic performance in Florida High school. He stated 50 schools across urban and

rural areas, public and private schools and 1000 participants' respondents a school plant maintenance questionnaire. Final year result of student in Biology, Chemistry, and Physics were used to measure students' achievement using Pearson correlation at 0.05 alpha levels. He found that there was a significant and positive relationship between the maintenance of classroom, equipment, electricity, water supply, play sounds landscaping and student's academic performance

From the analysis of the previous works, It is apparent that provision and maintenance of school plant in Nigerian colleges of education is yet to receive due attention from research's despite the importance of facilities in attaining academic excellence.

In view of the above, this study will assess the provision and Maintenance of school plant in college of Education in North-west Geopolitical Zone of Nigeria, with emphasis on infrastructural facilities, teaching and learning facilities, welfare facilities and recreational games facilities

2.11 Summary

This research utilized the relevant literature to examine assessment of provision and maintenance of school plant in colleges of education in North West Geo-political Zone of Nigeria, Facilities as viewed by different author were found to be very much appropriate and important to teaching and learning in colleges of education. Theoretical framework was highlighted, where the researcher reviewed relevant literature so as to have a theoretical base for the study. Salient concepts were examined as physical facilities, provision and maintenance of infrastructural facilities in schools, provision and maintenance furniture's in schools the chapter also reviewed relevant literatures on the maintenance of facilities in Nigeria colleges of education, provision and maintenance of welfare facilities, the roles of Adequacy of funding on

the provision of infrastructures, types of college facilities, provision and maintenance of classroom/lecture theaters, laboratories/workshop, library, hostel, water and electricity supply, health/recreational facilities and so on. Relevant data on the roles of Provost, Lecturer, Students and regulatory bodies on maintenance of infrastructures were presented. Environmental theory and its relationship to physical facilities planning and management also reviewed, further more concept of welfare facilities, recreation and games, and environmental theories and its relationship to physical facilities, planning and maintenance were also presented

In view of the of the above, the provision and maintenance of infrastructural facilities were reviewed, the result of the findings of the study revealed that, infrastructural facilities are provided, however some of these provided facilities are not maintained and some are not adequate. An important modern strategy and techniques of maintenance is required for effective teaching and learning. The Colleges of Education management or heads (Provost) to ensure that serious mechanism and effort is supposed to be employed and use to check all types of teaching facilities that are needed in the college. Because more than 50% of the respondents agreed that teaching facilities are not adequate and in the dilapidated condition

It was realized from the review that, learning facilities that need proper attention base on the respondents opinion are adequate seat in the library, buses for excursion, workshops, apparatus for practical they need proper maintenance for effective teaching and learning.

Analysis of the provision of welfare facilities in Colleges of Education indicated that provision of adequate physical, social and financial conditions automatically motivate individuals to perform better at work. Alternative, where workers are poorly or inadequately motivated, the tendency is for them to seek a greener pasture elsewhere within or outside the country. Such is the situation in the Nigeria Colleges of Education.

In every organization, all members strive to enjoy certain basic and essential welfare services in the colleges such services include prompt payment of reasonable and realistic take – home salaries and other basic allowances, provision of good health care delivery centre's, provision and maintenance of bore- holes for good water supply, provision of befitting staff accommodation, regular electricity supply and provision of sporting and recreational facilities, other welfare service that staff can enjoy which has impact on their service delivery also include provision of training and re-training opportunities along sponsorship to national and international conferences workshops and post-graduate programmes. These programmes would enhances, job performance and boost the moral of the beneficiaries. This directly or indirectly serve as welfare packages to the College lecturers and since quality of teachers is one of the determinants of quality in the educational system as no educational system can rise above the quality of its teachers.

In view of the above welfare facilities will have a lot of energy, money and time. The college management should include staff contribution in maintaining staff quarters and vehicle rehabilitation and likewise students should be included in committees of hostel security activities in order to reduce mismanagement of college facilities.

The importance of recreation and games facilities was also discussed in the literature. The review indicated the importance of recreation and games, open air sport facilities must not give young people the chance to do some kind of sport and physical activities, but they must take into consideration also older and disabled people striving for a health life and not despising competition. The planning of available sport facilities must be based on the concept of facilities as a system and sports as practices and service within a rational organization of the space and areas at one's disposal.

Generally, it is enough for a district or school to have one or two multipurpose field with synthetic floor standard measures 40-200; with lighting and were net fencing- where many sports can be done such five aside, football, hand ball, volley ball, and other gymnastic activities; generally, structures such as dressing rooms bathrooms and terrace for spectators are not in the plan of the school facilities, these being mostly used by young people living in the school. If, however, the facility should also dispose of dressing room and sanitary service which are transportable and usable in other places and other events, as far as maintenance is concerned, it is necessary to employ materials which don't require particular maintenance and which can be easily operated

Uniqueness of the Study

The present research investigated on the opinion of management staff, teaching staff, senior non teaching staff union leaders and student's representative on the assessment of provision and maintenance of school plant in North—West Geo-p-Political Zone, Nigeria with emphases on the provision and maintenance of:

Infrastructural facilities

Teaching facilities

Learning facilities

Welfare facilities

Recreation and games facilities

The research covers all component of school plant while other study reviewed cover one or two component the school plant

Other study reviewed was based on the state or local government areas and carried out in the secondary schools while this study was carried out in colleges of education in North-West Geo-Political Zone ,comprising Seven States.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This is a descriptive research which assessed the provision and maintenance of school plant in Colleges of Education in North-West Geol-political Zone, Nigeria. In order to adequately assess the opinions of management staff, teaching staff, senior non teaching staff union leaders and students' representatives on the provision and maintenance of school plant, the opinions of management staff, academic staff, senior non-teaching staff union leaders and students' representatives of these colleges were sought. The opinions of these categories of respondents became necessary in this study because directly or indirectly they have a stake in Teacher Education. Management staff, academic staff, union leaders and students' representatives are directly involved in the administration and affairs of the Colleges of Education while the society and students are the direct beneficiaries of Education. This chapter, therefore, describes the research design, population, sample and sampling technique, instrumentation, validation of the instrument and methods of data analysis.

3.2 Research Design

The research design was descriptive in nature and it focused on the assessment of provision and maintenance of school plant in Colleges of Education in North-west Geo-political Zone, Nigeria. The survey research design was used in the collection of data because Whitney and Denga, in Mohammad (2011), have described the use of survey as a systematic and organized attempt to analyze, interpret and report the present status of a social institution, group or area. The approach is expected to give detailed description of target population for the research in

terms of size and difference as may be reflected in the respondent's attitudes, feelings and in opinions in relation to the assessment of provision and maintenance of school plant in College of Education in North-West Geo-political Zone, Nigeria. The survey method was necessary so as to provide a comprehensive description of complexities in such a way that general conclusion or influences could be drawn from each of the phenomenon. It is considered the most appropriate in a study that involves large and scattered population such as this study.

3.3 Population of the study

The population of the study was made up of all the management staff from 12 College of Education in North-West Geo-political Zone, all the teaching staff, senior non-teaching staff union leaders and students' representative of the public Colleges of Education. The population of the management staff includes Provost, Deputy Provost, Registrar, Bursar, College Librarian and Director of Works. The inclusion of Management staff is imperative because they are responsible for the day to day management of Teacher Education programme and its affairs. Virtually, in all colleges' of education there are at least six members of the management committee .The total population as regard to management staff for each of the college of education was six which summed up to 72respondents. The population of teaching staff, senior non-teaching staff union leaders and student's representatives for the study from public colleges of education in the North-West Geo-political Zone obtained from the National Commission for Colleges of Education (NCCE) which summed up to 4,475 teaching staff, 120 senior non- teaching staff union leaders and 144 students' representatives, the total population of the study was 4,811 respondents. The table below 3.1 shows the distribution of population of the respondents of the study,

Table 3.1 Distribution of the population of the study

S/N	Name of Colleges	Management Staff	Teaching Staff	Senior non-Teaching Staff Union Leaders	Students Representative	Total
1	F C E Bichi	6	261	10	12	289
2	FCE Gusau	6	182	10	12	210
3	F C E Kano	6	389	10	12	417
4	FCEKatsiana	6	254	10	12	282
5	F C E Zaria	6	789	10	12	817
6	AACOE Argungu	6	147	10	12	177
7	I K C O E Dustin ma	6	216	10	12	244
8	COEGidawaya	6	382	10	12	410
9	COEGumel	6	216	10	12	244
10	COEKumbots	6	724	10	12	752
11	COEMaru	6	176	10	12	204
12	S S C O E Sokoto	6	737	10	12	765
	Total	72	4,475	120	144	4,811

Source NCCE (2013)

3.4 Sample and Sampling Technique

The sample size of the study was obtained from the seven states of the North-West political Zone. The sample size of the colleges of education was reached after using Roscoe Mohammad (2011) who recommends a sample of 10% or more which is adequate enough to accommodate any statistical analysis and conclusion. Random sampling technique was used to obtain three states from the seven states of the study area (Zone) slightly over 10%. The Colleges of Education under them are as follows: Federal College of Education (Technical) Gusau, Zamfara state, College of Education Maru Zamfara state, Federal College of Education, Kano, Saadatu Rimi College of Education Kombutso, Kano state, Federal College of Education Zaria, College of Education Gidan waya, Kaduna state.

Total numbers of colleges of education were restricted to six because of the historical perspective i.e. the seven states that constituted the North—west Geo-political zone, were initially three states before the subsequent states creation (1991,1997) etc Kaduna, Kano and Sokoto States; another reason was state with two colleges of education and their locations i.e. Urban and rural areas. These will ensure geographical spread across the colleges of education in North-west Geo-political Zone, Nigeria.

In each of the selected colleges four management staff, six senior non-teaching staff union leaders and eight students' representative were considered. In case of teaching staff 264 were selected for the whole sample colleges, a total number of 375 respondents were considered. In accordance with the table for determining size from a give population Roscoe (1975) seems to use 10% as a rule of thumb' acceptable level, according to Gay&Diehl, (1992) generally the number of respondents acceptable for a study depends upon the type of research involved-descriptive, correlation or experimental. For descriptive research the sample should be 10% of the population. But if the population is small than 20% may be required, therefore the determining sample size for this research was 10% based on Roscoe, Gay&Diehl, (1992)

Two sampling techniques, namely, Purposive and random was used for the study, since the study was an assessment of Provision and Maintenance of school plant in colleges of education in North-west Geo-political Zone, Nigeria,(2010—2014), management staff, teaching staff, Senior non teaching staff union leaders and students' representative of the colleges are relevant to the study as those involved in the maintenance and user of the facilities was the reason for the choice of these categories.

At the college level, the cluster sampling method was used in obtaining the representatives of the colleges, there after; the stratified random sampling method was used based on the states with more than one college of education in selecting the three states. This method was adopted because it prevents bias Mohammad (2011).

After obtaining the sample population of the colleges, using Roscoe, (1969) who recommends a sample of 10% or more which is adequate enough to accommodate any statistical analysis and conclusion. The sample sizes were as follows: 24 management staff, two hundred and sixty seven (267) teaching staff, 36 senior non teaching staff unions and 48 students' representatives. The total number of sample sizes was three hundred and seventy five 375 respondents. Below is the table of distribution of the respondents and sample sizes.

Table 3.2 Distribution of the respondents and sample sizes

S/N	Name of sample colleges	P of mangt staff	S of mangt staff	P of academic staff	S of academic staff	P of union leaders	S of union leaders	P of students rep	S of students rep
1	F C E Gusau	6	4	182	19	10	6	12	8
2	F C E Kano	6	4	389	39	10	6	12	8
3	F C E Z aria	6	4	789	79	10	6	12	8
4	COE Gidanwaya	6	4	383	39	10	6	12	8
5	C O E Kumbotso	6	4	724	74	10	6	12	8
6	C O E Maru	6	4	176	18	10	6	12	8
	Total	36	24	2,642	267	60	36	72	48

Source: NCCE, 2013& Gay &Deihl, (1992)

Population =2,810

Sample=375

Composition of the management staff: Provost, Deputy Provost, Registrar, Bursar, College librarian and Director Works. The academic staff as far as this study is concerned are the teaching staff, while the senior non-teaching staff union leaders are: Chairman, Vice chairman, Secretary General, Treasurer, Financial Secretary, Auditor General, Publicity Secretary, Director

of Social and One ex official member. And Students representatives include: President, Vice President, Secretary General, Assist Secretary General, Financial Secretary, Treasurer, Auditor General, Welfare Director, Social Director, P R O, Sport Director and Sales Director.

3.5 Instrumentation

Questionnaire was used in this study because it is most appropriate in descriptive study Mohammed (2011) States that its usage as most suitable for survey research. Mohammad (2011) states that, it is preferred in most cases where sample sizes are large or where factual information is required with relative degree of accuracy, the questionnaire was designed by the researcher based on the issues highlighted in the research questions and hypothesis. It was designed to elicit responses from the respondents on the assessment of provision and maintenance of facilities in Colleges of Education in North-West Geo-political Zone, Nigeria. The questionnaire was also supported by personal observations by the researcher. This was necessary because according to Mohammad (2011 when two or more different reliable methods of data collection are used in a study, more facts were revealed, which might elude each of the instruments when used separately. In developing the instruments, the closed structured type of questions were adopted. The respondents were asked to simply state the extent to which they agreed or disagreed with a given statement to issues. Statements related to an issue, statements on subject matter under investigation were drawn in a single questionnaire for all the four (4) categories of respondents. The questionnaire was based on Likert scale format which has five points rating scale which determines the extent to which the respondents agree or disagree with a particular issue. It is divided into five –point ranking scale as follows:

Strongly Agree 5

Agree	4
Undecided	3
Disagree	2
Strongly Disagree	1

Section A of the questionnaire is open-ended type questions aimed at obtaining information about the Bio-data of the respondent. Section B of the questionnaire was framed along structured type questions that would provide answers to research questions. The language of the questionnaire was simple and unambiguous. This allowed the respondents to answer the questions with relative ease.

3.6 Validity of the Instrument

The instrument was developed by the researcher and give to experts for vetting and correction. The method of validation is recommended by (Mohammad (2011) who was of the opinion that the content of the instruments should be subjected to the expert for vetting to make it more valid and reliable. Mohammad (2011) has strongly argued in favor of content validity of the instrument, it is best done when the researcher requests critical examination of the drafted instrument with effecting corrections, amendments and modifications to make it valid for the intended research study

According to Mohammad the validation of the content of the research instruments were validated by expert, is an important and acceptable technique. The research instruments were validated by experts in a wide range of fields such as educational administration and planning, psychology, architecture and statistic. These experts were involved in supervision of candidates

and teaching of course to students undertaking research in their fields. Therefore, the consensus by experts on the likert type scale questionnaire is valid for this research Mohammad (2011).

In order to make sure that the final copy of the questionnaire was valid for the study, the researcher employed the services of some Postgraduate Students in the Department of Education Foundations and Curriculum during the construction of the questionnaire. Based on the input of the students a draft of the questionnaire was submitted to the supervisors for validation. On the basis of their expert inputs, a well- structured questionnaire made of 6 demographic variables and ten sections each made of ten and above structured, 5 Likert scale questions of Strongly agree, Agree, Undecided, Disagree and Strongly Disagree carrying points of 5,4,3,2 and 1 respectively which were thus administered to the four (4) groups of respondents, 54 were administered to management staff, 267)to teaching staff , 36to senior non-teaching staff union leaders and 48 to students representative.

3.7 Pilot study

To find out the reliability of the instrument a pilot study was conducted in Federal College of Education Bichi Kano state and Kebbi State College of Education Argungu. Eighty four (84) questionnaires were administered to the four groups of respondent. Twelve were administered to management staff, twenty six (26) to teaching staff, 12)to senior non teaching staff union leaders and 16 to student's representatives. The Crobachs correlation coefficient was used in testing the collected data. Data collected from the pilot survey were then subjected to a reliability test. This was to determine the reliability and sustainability of the instrument for the study and other similar studies. The test also determined the ease with which respondents answered the set of questions in the instruments and the relevance of the questions to the study.

The statistical package for the social science (SPSS) was used in the test. The result showed a reliability coefficient of 0.8052. No questions were discovered to be too hard or too simple for comprehension by the respondents.

Also, no question was found to be out of tune with the objectives of the study. All the questions were found to be consistent with the set objectives of the study. All the questions were found to be consistent with the set objectives of the study. This implies that the instrument was highly reliable for the study, Mohammad (2011). This observed reliability coefficient revealed that the instrument was suitable for the studies and other similar studies with reliable results.

3.8 Reliability of the Instrument

The data thus collected from the pilot study were statistically analyzed for the purpose of reliability coefficient. Consequently, reliability coefficient of alpha level of .846 and standard alpha level of 0.876 were obtained. These reliability co-efficient was considered adequate for the internal consistencies of the instruments. This was a confirmation of test of reliability according to Mohammad (2011), an instrument is considered reliable if it lies 0 and 1 and that the closer the calculated reliability co-efficient is to Zero, the less reliable is the instrument, and the closer the calculated reliability co-efficient is to 1, the more reliable is the instrument. This therefore, confirms the reliability of the data collection instruments used as fit for the main work.

3.9 Procedure for Data collection

The researcher employed the personal visit to the colleges to collect data. Copies of the questionnaire were administered by the researcher through the assistance of trained research assistants 375 copies of the questionnaire were administered, 370 were returned. Thus 370 copies of the research instrument were collected completed, retrieved and used for data analysis, while

five (5) questionnaires were not due to mortality rate. Table 3.3 below shows the distributions of the questionnaire to respondents of the sample colleges.

Table 3.3 Distribution of questionnaire to the Sample Colleges of Education in frequency and percentages

S/N	Colleges	Frequency	Percentage
1	F C E Gusau	37	9.8
2	F C E Kano	57	15.2
3	F C E Zaria	97	25.8
4	C O E Gidanwaya	57	15.2
5	C O E Kumbotso	91	24.3
6	C O E Maru	36	9.6
	Total	375	99.9

Source: Developed by the Researcher

3.10 Method of Data Analysis

The research used frequency counts and percentages mean scores and tabulation in form of tables for easy understanding. A one- way Analysis of Variance was used to test if there was any difference in the perceptions of the four groups of respondents. It is appropriate because prominent statisticians like Borg and Gall (1989) and steel and Forrie Mohammad (2011) stated that it is useful for determining whether groups differ significantly from one another. The Scheffe's tests of multiple comparisons were used to determine the difference and with particular group mean differed significantly from another. ANOVA was used to find the extent to which the different categories agreed or disagreed to a given item (s) Post –hoc test was performed using the Scheff's procedure for multiple comparisons to ascertain the level of the differences.

The significant level of statistics was placed at 0. 0 5, that is five percent (5) probability of committing a type1 error which represents a rejection of a hypothesis that is actually true. The use of this level of significance is considered most valid for studies that are related to Arts, Social Science and Education (Mohammad 2011). This is because in these areas there is enough room for the emergence of diverse opinions over an issue phenomenon

Accordingly, Analysis of Variance (ANOVA) was used because it determines whether the mean of independent variable is the same or more in two or more unrelated. That dependent variable should be at continues level; In depended variable should consist of two or more categorical Independent (unrelated) groups; the research have independent observation which means that there is no relationship between the observation in each group or between the groups themselves; there should be no significant outliers an outliers is single case within the data; the variance is homogeneous. The variable is aprozemitly normal distributed for each category of the independent variable.

s

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF DATA

4.1 Introduction

This chapter presents the analysis and discussion of data related to the issues raised in chapter one. It represents the analyzed bio-data of the respondent's and main issues in the questionnaire. Thus, the presentation is done in the order:

4.2 Bio data of the respondents;

4.3 Provision of infrastructural facilities;

4.4 Maintenance of infrastructural facilities;

4.5 Provision of teaching facilities;

4.6 Maintenance of teaching facilities;

4.7 Provision of learning facilities;

4.8 Maintenance of learning facilities;

4.9 Provision of welfare facilities;

4.10 Maintenance of welfare facilities;

4.11 Provision of recreation and games facilities; and

4.12 Maintenance of recreation and games facilities;

The analysis revealed the opinions of respondents on the provision and maintenance of school plant in Colleges of Education in North-West Geo-political Zone.

4.2 Discussion of the Biodata of the Respondents

This section presents the Biodata of respondents in respect of status, qualification, and years of working experience. These are contain in tables 4.1 and 4.2

Table 4.1 Number of respondents in the Sampled Colleges

Colleges	Frequency	Percent	Valid Percent	Cumulative Percent
F C E (T) Gusau	37	10	10	10
F C E Kano	57	15.4	15.4	25.4
F C E Zaria	92	25	25	50.4
C O E Gidanwaya	57	15.4	15.4	65.8
C O E Kumbotso	91	24.5	24.5	90.3
C O E Maru	36	9.7	9.7	100.0
Total	370	100.0	100.0	

Table 4.1 shows the frequency and percentage of six Colleges of Education selected for the study, the dedication from the tables shows that ninety two (92) respondents participated and returned their copies of questionnaire from Federal College of Education Zaria, having the highest respondents. While a total of ninety one (91) copies of the questionnaire were returned by the respondents from Saadatu Rimi College of Education Kumbotso Kano State. The copies of questionnaire returned in all the colleges of education were three hundred and seventy (370). The percentages were equally tabulated, both valid and cumulative.

Table 4.2: Discussion of the Bio-Data of Respondents

Gender	Frequency	Percentage
Male	270	73
Female	100	27
Status of Respondents		
Management Staff	24	6
Teaching Staff	262	71
Senior non-teaching staff union leaders	36	10
Students Representative	48	13
Qualifications of Respondent		
PhD	57	15
Masters	74	20
Degree	95	26
Diploma/NCE	98	27
Others	46	12
Years of working experience		
20 years and above	53	16
15--- 20 years	95	30
6---- 10 years	110	34
1---- 5 years	64	20

Table 4.2 shows that 269 respondents representing 72.7% were male while 101 respondents, representing 27.3% were female. This means that male had the higher population among the respondents in this study. Secondly the status of respondents are: 24 out of 370 respondents (6.5% of the respondents) were management staff, while 262 respondents representing 70.8% were teaching staff; senior non-teaching staff union leaders have 38 respondents which is equivalent to10.3% and the students' representatives had the remaining 46 respondents with 12.4 %. This indicated that teaching staff had more respondents than others in terms of percentages and frequency.

Thirdly, the qualification of respondents shows that 27 respondents representing 7.3% have PhD, 158 respondents have master degree with 42.7% and 127 respondent's representing 34.3% have degree, 12 respondents representing 3.2%, have Diploma/NCE, while the remaining 46 respondents representing 12.5% have other qualifications.

Finally, the table shows years of experience to be 6—10 years are the majority of the respondents with 42.7%, followed by 15—20 years (20.5%) while 1—5 years had 64 respondents representing 17.2% and respondents that had 20years and above were 72 representing 19.5% respectively. These demographic data showed that there was many experienced staff in colleges of education in North-West Geo-political Zone, Nigeria. 20 years and above are the minority as shown by the table followed by 1—5years of experience

4.3 Analysis of Respondents' Demographic Variable

This section is a tabular presentation of the responses of the respondents in frequency and percentages and their descriptive analysis

4.3.1 Opinions of respondents on the Provision of Infrastructural Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

This section contains the opinions of respondents on the provision of Infrastructural Facilities in Colleges of Education in North-West Geo-political Zone, in Nigeria. Items 1-10 in the questionnaire are related to this section. Responses of all respondents were collected, analyzed and presented in a table. Thus, table 4.3 gives the details of responses of respondents.

Table 4.3.1 Opinion of Respondents on Provision of Infrastructural Facilities in Colleges of Education in North-West Geo-Political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Lecture hall/classroom are adequately provided in the college	76	20.5	201	61.6	8	2.2	54	14.6	4	1.1
2	Laboratories and workshops are adequately provided in the college	46	12.4	241	65.1	18	4.9	60	16.2	5	1.4
3	Office accommodation are equipped with facilities and equipment are adequately provided in the college	35	9.5	231	62.4	13	3.5	72	19.5	19	5.1
4	Regular electricity supply are adequately provided in the college	32	8.6	103	27.8	32	8.6	183	49.5	20	5.4
5	Provision of regular tap water supply is adequately provided in the college	31	8.4	136	36.8	28	7.6	140	37.8	35	9.5
6	Provision of stand by generator for the college community are adequately provided in the college	35	9.5	78	21.1	31	8.4	190	51.4	36	9.7
7	Provision of road network within and outside the college is adequately provided in the college	39	10.5	148	40	28	7.6	122	33	33	8.9
8	Apparatus for practical are adequately provided in the college	37	10	201	54.3	30	8.1	77	20.8	25	6.8
9	Building of classrooms are adequately provided in the college	53	14.3	218	58.9	18	4.9	62	16.8	19	5.1

Table 4.3 is on provision of infrastructural facilities, the table shows that item one, lecture hall/classroom are adequately provided, 278 respondents representing 82 percent agreed that lecture hall/classrooms are adequately provided, 8 respondents representing 2 percent were neutral while 58 respondents representing 16 percent disagreed that lecture hall/classrooms are adequately provided. This shows that lecture hall/classrooms are adequately provided in colleges of education in North-West Geo-Political Zone, Nigeria.

Likewise on the second item and subsequent items majority of the respondents agreed that, laboratories and workshops are adequately provided in the colleges 287 respondents representing 78 percent agreed that laboratories and workshops are adequately provided, 18 respondents

representing 5 percent were neutral while 65 respondents representing 17 percent disagreed. This shows clearly that, laboratories and workshops are adequately provided in the colleges.

Item three which solicited for the respondents' opinion on the provision of offices accommodation shows that offices and equipments are adequately provided in the colleges. This is seen as 266 respondents representing 72 percent agreed, 13 respondents representing 4 percent were neutral while 94 respondents with 24 percent disagreed that offices accommodation that are equipped with facilities are adequately provided in the colleges in North-West Geo-Political Zone, Nigeria. Looking at the table critically one can conclude that, office accommodations that are equipped with facilities and equipment in are adequately provided in colleges of education in North-West Geo-Political Zone, Nigeria.

Item four which concerned with the opinions of respondents on regular electricity supply and adequacy of the provision in the colleges showed that 135 respondents representing 36 percent agreed that there is regular power supply, 32 respondents representing 9 percent were neutral while 203 respondents representing 55 percent disagreed. As such, regular electricity supply was not adequately provided in colleges of education in North-West Geo-Political Zone, Nigeria.

Items five was concerned with the opinions of respondents on the provision of regular tap water in the colleges 167 respondents representing 45. Percent agreed that there is regular supply of adequate tap water in the colleges within the Zone, 28 respondents representing 8 percent were neutral while 175 respondents representing 47 percent disagreed. This implies that tap water was inadequately provided in the colleges. Item six which concerned with the opinions of respondents on the provision of stand by generators, 113 respondents representing 31 percent agreed that stand by generators are adequately provided in the colleges, 31 respondents representing 8 percent were neutral while 226 respondents representing 61 percent disagreed.

This shows that the provision of stand by generators is not adequately provided in the colleges. seven which is on provision of good road network within and outside the colleges, 187 respondents representing 50 percent agreed that good road network are adequately provided within and outside the colleges, 28 respondent, representing 8 percent were neutral while 155 respondents representing 42 percent disagreed. Result from the table shows that good road network are adequately provided in the colleges. Item eight on provision of apparatus for practical by students shows that 238 respondents representing 64 percent agreed that apparatus for practical are adequately provided, 30 respondents representing 8 percent were neutral while 102 respondents representing 28 percent disagreed. This means that apparatus for practical are adequately provided in the colleges. Item nine on the building of classes in colleges of education within the Zone also shows that 271 respondents representing 73 percent agreed that classes are adequately provided in the colleges, 18 respondents representing 5 percent were neutral while 81 respondents representing 22 percent disagreed that classes were adequately provided in the colleges. This shows that classrooms were adequately provided. Item ten which concerned with the adequacy of necessary facilities in the administrative blocks in colleges within the Zone shows 261 respondents representing 71 percent agreed that such facilities were adequately provided, 21 respondents representing 6 percent were neutral while 88 respondents representing 23 percent disagreed. This shows that necessary facilities were adequately provided.

The analysis of the data collected further showed that majority of the respondents agreed that infrastructural facilities were adequately provided in colleges of education in North-West Geo-political zone, Nigeria. With the exception of electricity, tap water and standby generators Since the majority of the respondents agreed with the above statement success in all ramifications in teaching and learning is expected.

Table 4.4 Opinions of Respondents on Maintenance of Infrastructural Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Lecture hall/classroom are adequately maintain in the college	59	15.9	219	59.2	18	4.9	65	17.6	9	2.4
2	Laboratories and workshops are adequately maintain in the college	39	10.5	225	60.8	30	8.1	67	18.1	9	2.4
3	Office accommodation are equipped with facilities and equipment are adequately maintain in the college	36	9.7	228	61.6	22	5.9	70	18.9	14	3.8
4	Regular electricity supply are adequately maintain in the college	31	8.1	92	24.9	34	9.2	186	50.3	27	7.3
5	Provision of regular tap water supply is adequately maintain in the college	25	6.8	131	35.4	31	8.4	158	42.7	25	6.8
6	Provision of stand by generator for the college community are adequately maintain in the college	27	7.3	95	25.7	23	6.2	192	51.9	33	8.9
7	Provision of road network within and outside the college is adequately maintain in the college	38	10.3	158	42.7	27	7.3	122	33	25	6.8
8	Apparatus for practical are adequately maintain in the college	44	11.9	198	53.5	41	11.1	74	20	13	3.5
9	Building of classrooms are adequately maintain in the college	49	13.2	213	57.6	21	5.7	64	17.3	23	6.2
10	Administrative block is well equipped with all the necessary facilities in the college are maintain	46	12.4	215	58.1	20	5.4	67	18.1	22	5.9

Table 4.4 above revealed that lecture hall/classrooms are adequately maintained, as 278 respondents representing 75. percent agreed, 18 respondents representing 5 percent were neutral while 74 respondents representing 20 percent were of the opinion that they were not maintained. For lecture hall/classrooms to be considered as being maintained and equipped with chairs, tables, public address system and cross ventilation etc it must have a sizeable

dimension that can accommodate students for a convenient lecture. The contribution of a lecture hall/classroom for effective teaching and learning cannot be over emphasized. It is indispensable in the process of teaching and learning and serving.

The result in Table 4.4 also showed that lecture hall and classroom were adequately maintained for effective usage by students and staff in the respective Colleges of Education in North-West Geo-Political Zone, Nigeria.

Table 4.4 confirmed the adequacy of provision of laboratories and workshops in the respective colleges of education while Table 4.3.2 indicated the numbers of respondents that agreed to the statement however, 264 respondents representing 72 percent agreed that laboratories and workshops are adequately maintained, 30 respondents representing 8. percent were neutral while 76 respondents representing 20. percent disagreed. Furthermore, some boards, chairs and tables were depreciating in terms of quality and need change for their usages. As observed during the research period, some board and tables were adequately maintained in some colleges, as confirmed by large numbers of respondents. Colleges are dynamic systems, there is need for constant provision of new and maintenance of laboratories and workshops, due to the fact that they may be depreciating when left in a state of disrepair Table 4.4 shows the percentage and frequency distribution of provision of offices, accommodations with facilities and equipment and they were adequately provided, in Table 4.3.2, it clearly shows that office accommodation facilities and equipment are maintained, due to the fact that 264 respondents representing 71.3 percent agreed that they were maintained, 84 respondents representing 22.7 percent disagreed and only 22 respondents representing 6 percent were undecided. This means that there was adequate maintenance of office facilities and equipment in the respective colleges of education in the zone.

While items four to six also showed the disagreement, in Table 4.3.1 majority of the respondents disagreed on the issue of provision of regular electricity, provision of regular tap water, provision of standby generator, provision of good road network while provision of apparatus for practical were not adequately made in the same way. In Table 4.3.2 all agreed that there was poor or even no maintenance of these items. In Table 4.3.1 majority of respondents agreed to items eight to ten on adequate provision of buildings and administrative block. In Table 4.4 all agreed that there was adequate maintenance of those items in question with high frequency and percentages.

Looking at the analysis, majority of the respondents were of the opinion that there is adequate provision and maintenance of infrastructural facilities in colleges of education in North-West Geo-Political Zone, Nigeria

Table 4.5 Opinions of Respondents on the Provision of Teaching Facilities in

Colleges of Education in North-west Geo-political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Laboratory equipment are adequately provided in the college	43	11.6	213	57.6	38	10.3	58	15.7	18	4.9
2	Projector are adequately provided in the college	28	7.6	202	54.6	39	10.5	79	21.4	22	5.9
3	Camera pictures are well provided in the college	26	7	157	42.4	49	13.2	118	31.9	20	5.4
4	Television sets are adequately provided in the college	29	7.8	144	38.9	46	12.4	128	34.6	23	6.2
5	Posters are well provided in the college	22	5.9	147	39.7	49	13.2	136	36.8	16	4.3
6	Slides are adequately provided in the college	21	5.7	82	22.2	61	16.5	182	49.2	24	6.5
7	Radio sets are well provided in the college	32	8.6	157	42.4	43	11.6	108	29.2	30	8.1
8	Buses for excursion are well provided in the college	77	20.8	185	50	36	9.7	50	13.5	22	5.9
9	Public address system are adequately provided in the college	42	11.4	192	51.9	46	12.4	67	18.1	23	6.2
10	Computers are adequately provided in the college	42	11.4	194	52.4	46	12.4	65	17.6	23	6.2
11	Community resources are well provided in the college	34	9.2	152	41.1	69	18.6	73	19.7	42	11.4
12	Tape recorders are adequately provided in the college	40	10.8	146	39.5	100	27	62	16.8	22	5.9
13	Globes/World maps are well provided in the college	37	10	169	45.7	71	19.2	62	16.8	31	8.4
14	Diagrams rooms are adequately provided in the college	32	8.6	182	49.2	64	17.3	59	15.9	33	8.9
15	Stationeries are well provided in the college	44	11.9	180	48.6	50	13.5	56	15.1	40	10.8
16	Audio Visual Center is adequately provided in the college	40	10.8	118	31.9	44	11.9	127	34.3	41	11.1
17	Language laboratory is well provided in the college	44	11.9	175	47.3	54	14.6	68	18.4	29	7.8

The table which captured items on serial numbers 1 – 17 showed a total agreement on the part of respondents that most of the items were adequately provided. The following could be examine, item one on laboratories and workshops show that they are adequately provided because 256 respondents representing 69. percent agreed that there were adequate laboratories and workshops, while 76 respondents representing 21 percent disagreed on the adequate provision of laboratories and workshops and 38 respondents, representing 10 percent undecided on the statement. Looking at this distribution there is adequate

provision of laboratories and workshops because majority of the respondents confirmed it, there is adequate provision of laboratories and workshops by this number of respondents. It is the only mechanism that enables students to pass examination and become competent and effective teachers at the end of their programme. Item two concerned with adequate provision of projectors in the colleges, showed 230 respondents representing 68 percent agreed that projectors are adequately provided, 39 respondents representing 11 percent were neutral while 101 respondents representing 21 percent disagreed. It means that projectors were adequately provided in the colleges concerned. Item three on the provision of camera and pictures in the colleges, also showed 183 respondents representing 49 percent agreed that camera pictures were adequately provided, 49 respondents representing 14 percent were neutral while 138 respondents representing 37percent disagreed. The result indicated that camera pictures were adequately provided. Item four on adequate provision of television sets in the colleges had 173 respondents representing 47 percent agreed that television sets were adequately provided, 46 respondents representing 12 percent were neutral, while 151 respondents representing 41 disagreed. This implies that television sets were adequately provided in the colleges within the zone. Item five on the provision of posters in the colleges too showed 169 respondents representing 46 percent agreed that posters are adequately provided in the colleges, 49 respondents representing 13 percent were undecided while 152 respondents representing 41 percent disagreed. This shows that posters were well provided in the colleges. Item six on the provision of slides in the colleges, 103 respondents representing 28 percent agreed that slides were adequately provided, 61 respondents representing 16 percent were neutral while 206 respondents representing 56 percent disagreed that slides were adequately provided in the colleges. This result shows that slides

were not adequately provided in the colleges under study. Item seven was on the provision of radio sets in the colleges; 189 respondents representing 51 percent agreed that radio sets were adequately provided in the colleges, 43 respondents representing 12 percent were neutral while 138 respondents representing 37 disagreed. This means that radio sets were adequately provided in the colleges under study. Item eight on the provision of buses for students' excursion showed that 262 respondents representing 71 percent agreed that buses were adequately provided for excursion, 36 respondents representing 10 percent were neutral while 72 respondents representing 19 percent disagreed. This indicated that buses were adequately provided for students' excursion. Item nine was on the provision of public address system in the colleges; and 234 respondents representing 63 percent agreed that public address system were adequately provided, 46 respondents representing 13 percent were neutral while 100 respondents representing 24 percent disagreed. The result shows that public address systems were adequately provided. Item ten was on provision of computers for learning in the colleges. 236 respondents representing 64 percent agreed that computers were adequately provided, 46 respondents representing 12 percent were neutral while 88 respondents representing 24 percent disagreed. This means that computers were adequately provided in the colleges. Item eleven assessed the provision of community resources in the colleges; and 186 respondents representing 50 percent agreed that community resources were adequately provided, 69 respondents representing 18 percent were neutral, while 115 respondents representing 32 percent disagreed. This shows that community resources were adequately provided in the colleges. Item twelve was on the provision of tape recorders where 186 respondents representing 50 percent agreed that tape recorders were adequately provided, 100 respondents representing 27 percent were neutral

while 84 respondents representing 23 disagreed. This means that tape recorders were adequately provided in the colleges. Item thirteen looked at the provision of globes and world maps; 206 respondents representing 56 percent agreed that globes and world maps were adequately provided in the colleges, 71 respondents representing 19 percent were neutral while 93 respondents representing 25 percent disagreed. This shows that globes and world maps were adequately provided in the colleges. Item fourteen dealt with the provision of diagram room; here 214 respondents representing 58 agreed that diagram rooms were adequately provided, 64 respondents representing 17 percent were neutral while 92 respondents representing 25 percent disagreed. It means that diagram rooms were adequately provided in the colleges.

Item fifteen was on provision of stationeries'; and 224 respondents representing 61 percent agreed that stationeries' were adequately provided, 50 respondents representing 13 percent were neutral while 96 respondents representing 26 percent disagreed. This shows that stationeries' were adequately provided in the colleges. Item sixteen considered the provision of audio visual centers; where 158 respondents representing 43 percent agreed that audio visual centers were adequately provided, 44 respondents representing 12 percent were neutral while 168 respondents representing 45 percent disagreed. This shows that audio visual centers were not adequately provided in the colleges. Item seventeen assessed the provision of language laboratory, and 219 respondents representing 58 percent agreed that language laboratory was adequately provided, 54 respondents representing 15 percent were undecided while 97 respondents representing 27percent disagreed. This means that language laboratory was adequately provided

Table 4.6 Opinion of Respondents on Maintenance of Teaching Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

S/N		SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Laboratory equipment are adequately maintain in the college	47	12.7	209	56.5	42	11.4	64	17.3	8	2.2
2	Projector are adequately maintain in the college	39	10.5	187	50.5	51	13.8	77	20.8	16	4.3
3	Camera pictures are well maintain in the college	28	7.6	179	48.4	53	14.3	88	23.8	22	5.9
4	Television sets are adequately maintain in the college	30	8.1	181	48.9	62	16.8	77	20.8	20	5.4
5	Posters are well maintain in the college	19	5.1	159	43	71	19.2	104	28.1	17	4.6
6	Slides are adequately maintain in the college	19	5.1	89	24.1	75	20.3	152	41.1	35	9.5
7	Radio sets are well maintain in the college	25	6.8	150	40.5	68	18.4	101	27.3	26	7
8	Buses for excursion are well maintain in the college	53	14.3	182	49.2	38	10.3	70	18.9	27	7.3
9	Public address system are adequately maintain in the college	39	10.5	206	55.7	36	9.7	61	16.5	28	7.6
10	Computers are adequately maintain in the college	52	14.1	197	53.2	43	11.6	64	17.3	14	3.8
11	Community resources are well maintain in the college	32	8.6	167	45.1	81	21.9	68	18.4	22	5.9
12	Tape recorders are adequately maintain in the college	29	7.8	163	44.1	56	15.1	84	22.7	38	10.3
13	Globes/World maps are well maintain in the college	33	8.9	180	48.6	54	14.6	74	20	29	7.8
14	Diagrams rooms are adequately maintain in the college	41	11.1	181	48.9	58	15.7	69	18.6	21	5.7
15	Stationeries are well maintain in the college	50	13.5	172	46.5	60	16.2	72	19.5	16	4.3
16	Audio Visual Center is adequately maintain in the college	38	10.3	129	34.9	56	15.1	113	30.5	34	9.2
17	Language laboratory is well maintain in the college	48	13	183	49.5	55	14.9	57	15.4	27	7.3

The table captured items under serial number 1 – 17 where statements showed a total agreement on the part of respondents that most of the items were adequately

maintained. The following can be examine , item one was on laboratories and workshops are adequately maintained, 256 respondents representing 69 percent agreed that there were adequately maintained laboratories and workshops while 72 respondents representing 20 percent disagreed to the view that there is adequate maintenance of laboratories and workshops and 42 respondents' representing11 percent were undecided on the statement. Looking at this distribution it is clear that there was adequate maintenance of laboratories and workshops because majority of the respondents confirmed it. there is adequate provision of laboratories and workshops as indicated by the number of respondents. It is also the only mechanism that enables students to pass examination and become competent and effective teachers at the end of their programme. Item two concerned with adequate provision of projectors in the colleges was perceived by 235 respondents representing 61 percent as agreed i.e. that projectors are adequately maintained, 51 respondents representing 14 percent were neutral while 93 respondents representing 25 percent disagreed.

It means that projectors were adequately maintained in the colleges concerned. For item three on the maintenance of camera pictures in the colleges, 207 respondents representing 56 percent agreed that camera pictures were adequately maintained, 53 respondents representing 14 percent were neutral while 110 respondents representing 30 percent disagreed. The result indicated that camera pictures were adequately maintained. Also, Item four on adequate maintenance of television sets in the colleges, 211 respondents representing 58 percent agreed that television sets were adequately provided, 62 respondents representing 16 percent were neutral, while 97 respondents representing 26 disagreed. This implies that television sets were adequately maintained in the colleges within the zone. Item five on the maintenance of posters in the colleges equally had 178 respondents representing

48 percent who agreed that posters are adequately maintained in the colleges, 71 respondents representing 19 percent were undecided while 121 respondents representing 33 percent disagreed. This shows that posters were well maintained in the colleges. But Item six on the maintenance of slides in the colleges had 108 respondents representing 29 percent who agreed that slides were adequately maintained, 75 respondents representing 20 percent were neutral while 187 respondents representing 51 percent disagreed that slides were adequately maintained in the colleges. This result shows that slides were not adequately maintained in the colleges under study. Item seven on the maintenance of radio sets in the college had 175 respondents representing 47 percent agreed that radio sets were adequately maintained in the colleges, 68 respondents representing 18 percent were neutral while 127 respondents representing 35 disagreed. This means that radio sets were adequately maintained in the colleges under study. Then Item eight on the maintenance of buses for students' excursion, which had 235 respondents representing 64 percent agreed that buses were adequately maintained, 38 respondents representing 10 percent were neutral while 97 respondents representing 26 percent disagreed.

This indicated that buses were adequately maintained for students' excursion. Likewise, Item nine which is on the maintenance of public address system in the colleges had 245 respondents representing 66 percent that agreed that public address system were adequately maintained, 36 respondents representing 10 percent were neutral while 89 respondents representing 24 percent disagreed. The result shows that public address systems were adequately maintained. Item ten on the maintenance of computers for learning in the colleges, 249 respondents representing 67 percent agreed that computers were adequately maintained, 43 respondents representing 12 percent were neutral while 78 respondents

representing 21 percent disagreed. This means that computers were adequately maintained in the colleges. Item eleven too on the maintenance of community resources in the colleges had 199 respondents representing 54 percent that agreed that community resources were adequately maintained, 81 respondents representing 22 percent were neutral, while 90 respondents representing 24 percent disagreed. This shows that community resources were adequately maintained in the colleges. For Item twelve on the maintenance of tape recorders, 192 respondents representing 52 percent agreed that tape recorders were adequately maintained, 56 respondents representing 15 percent were neutral while 122 respondents representing 33 percent disagreed. This means that tape recorders were adequately maintained in the colleges. Item thirteen on the maintenance of globes and world maps, 213 respondents representing 58 percent agreed that globes and world maps were adequately maintained in the colleges, 54 respondents representing 15 percent were neutral while 103 respondents representing 27 percent disagreed.

This shows that globes and world maps were adequately maintained in the colleges. For item fourteen on the maintenance of diagram rooms, 222 respondents representing 60 percent agreed that diagram rooms were adequately maintained, 58 respondents representing 16 percent were neutral while 90 respondents representing 24 percent disagreed. It means that diagram rooms were adequately maintained in the colleges. The item on the maintenance of stationeries,222 respondents representing 60 percent agreed that stationeries' were adequately maintained, 60 respondents representing 16 percent were neutral while 88 respondents representing 24 percent disagreed. This shows that stationeries were adequately maintained in the colleges. Item sixteen on the maintenance of audio visual centers had 17 respondents representing 39 percent agreed that audio visual centers were

adequately maintained, 56 respondents representing 15 percent were neutral while 167 respondents representing 45 percent disagreed. This shows that audio visual centers were not adequately maintained in the colleges. Item seventeen is on the maintenance of language laboratory and 231 respondents representing 63 percent agreed that language laboratory was adequately maintained, 55 respondents representing 15 percent undecided while 84 respondents representing 22 percent disagreed. This means that language laboratory was adequately maintained.

Table 4.7 Opinions of Respondents on Provision of Learning Facilities in College Education in west Geo political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Relevant books in the library are adequately provided in the college	74	20	205	55.4	26	7	57	15.4	8	2.2
2	White and black boards are well provided in the college	65	17.6	220	59.5	17	4.6	55	14.9	13	3.5
3	Chairs and tables are adequately provided in the college	69	18.6	215	58.1	15	4.1	55	14.9	16	4.3
4	Internet facilities are well provided in the college	44	11.9	175	47.3	24	6.5	100	27	27	7.3
5	e-book library is adequately provided in the college	43	11.6	183	49.5	34	9.2	86	23.2	24	6.5
6	Departmental libraries are well provided in the college	46	12.4	103	27.8	25	6.8	157	42.4	39	10.5
7	Seats in the library are adequately provided in the college	60	16.2	185	50	36	9.7	57	15.4	32	8.6
8	e-journals are well provided in the college	39	10.5	162	43.8	64	17.3	75	20.3	30	8.1
9	Still pictures are adequately provided in the college	36	9.7	99	26.8	70	18.9	131	35.4	34	9.2
10	Fanned boards are adequately provided in the college	36	9.7	112	30.3	66	17.8	124	33.5	32	8.6
11	Bulletin boards are well provided in the college	51	13.8	173	46.8	44	11.9	68	18.4	34	9.2

Table 4.7 is on provision of learning facilities. The table shows that item one on relevant of books in the library had 279 respondents representing 70 percent agreed that

relevant books in the library were adequately provided, 26 respondents representing 10 percent were neutral while 65 respondents representing 20 percent disagreed. This shows that relevant books were adequately provided in the libraries of colleges of education in North-West Geo-Political Zone, Nigeria. Since stakeholders in education need to inculcate adequate reading culture among students, there is the need for proper orientation and enlightenment for students on the adequacy of books for use in the library. Likewise the second item, which has to do with the provision of white and black boards, had 285 respondents representing 77 percent agreed that the boards were well provided, 17 respondents representing 5 percent were neutral while 68 respondents representing 18 percent disagreed that white and black boards were not well provided, this shows clearly that white and black boards were adequately provided by looking at the total frequency and percentages of each respondent. In item three which solicited for the respondent's opinion on the provision of chairs and tables in the respective colleges, majority of the respondents agreed that chairs and tables were adequate in the colleges with 284 respondents representing 77 percent, while 15 respondents representing 4 percent were neutral while 71 respondents representing 19 percent disagreed. one can conclude that majority of the respondents agreed that there are adequate learning facilities in colleges of education in North-West Geo-Political Zone, Nigeria.

Item four on the opinion of respondents on whether internet facilities are well provided in the colleges with 219 respondents representing 59 percent who agreed, 24 respondents representing 7 were neutral while 127 respondents representing 34 percent disagreed with the statement. Item five on the opinions of respondents on the provision of E-library in the colleges showed that 226 respondents representing 61 percent agreed that E-

library was adequately provided in the colleges, 34 respondents representing 9 percent were neutral while 110 respondents representing 30 percent disagreed that E-library was not adequately provided in the colleges. But for item six on the state of departmental library in the colleges, 149 respondents representing 40 percent agreed that departmental libraries were adequately provided, 25 respondents representing 7 percent were neutral while 196 respondents representing 53 percent disagreed. The result shows that departmental library was not adequately provided because most departments do not have libraries. Item seven on the opinions of respondents on the adequacy of seats in the library with 245 respondents representing 66. percent who agreed that seats were adequately provided in the colleges, 36 respondents representing 10 percent were neutral while 89 respondents representing 24 percent disagreed that seats were adequate in the library. The result shows that seats were adequately provided in the libraries in colleges within the zone. Item eight the opinions of respondents on the provision of E-journals in colleges within the zone and 201 respondents representing 54 percent agreed that E-journals were adequately provided, 64 respondents representing 17 percent were neutral while 105 respondents representing 29 percent disagreed that E-journals were adequate. The result indicated that E-journals were adequately provided for learning in the colleges in the zone. On the provision of still pictures in colleges, 235 respondents representing 37percent agreed that still pictures were adequately provided in the colleges, 70 respondents representing 20 percent were neutral while 164 respondents representing 45percent disagreed that still pictures were adequate in the colleges. It means that still pictures were adequately provided

. Item nine on the opinion of respondents on the provision of fanned boards, 148 respondents representing 40 percent agreed that fanned boards were adequately provided, 66

respondents representing 20 percent were neutral while 156 respondents representing 40. percent disagreed that fanned boards were adequately provided. Item ten on the opinion of respondents on the provision of bulletin boards, where 224 respondents representing 61 percent agreed that bulletin boards were adequately provided, 44 respondents representing 12 percent were neutral while 102 respondents representing 27percent disagreed. The result shows that bulletin boards were adequately provided. The analysis of the data collected revealed that with the exception of items six and nine that were perceived to be inadequate, all the other items were said to be adequately provided in colleges of education in North-West Geo-political zone

4.8 Opinions of Respondents on Maintenance of Learning Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

S/N	STATEMENT	SA	A	UND	DA	SDA

		F	%	F	%	F	%	F	%	F	%
1	Relevant books in the library are adequately maintain in the college	66	17.8	178	48.1	27	7.3	70	18.9	29	7.8
2	White and black boards are well maintain in the college	55	14.9	191	51.6	23	6.2	80	21.6	21	5.7
3	Chairs and tables are adequately maintain in the college	46	12.6	213	57.6	22	5.9	66	17.8	23	6.2
4	Internet facilities are well maintain in the college	47	12.7	163	44.1	46	12.4	88	23.8	26	7
5	e-book library is adequately maintain in the college	42	11.4	194	52.4	36	9.7	73	19.7	25	6.8
6	Departmental libraries are well maintain in the college	46	12.4	115	31.1	38	10.3	125	33.8	46	12.4
7	Seats in the library are adequately maintain in the college	53	14.3	196	53	30	8.1	53	14.3	38	0.3
8	e-journals are well maintain in the college	40	10.8	166	44.9	55	14.9	79	21.4	30	8.1
9	Still pictures are adequately maintain in the college	50	13.5	98	26.5	52	14.1	138	37.3	32	8.6
10	Fanned boards are adequately maintain in the college	65	17.6	128	34.6	49	13.2	110	29.7	18	4.9
11	Bulletin boards are well maintain in the college	53	14.3	178	48.1	41	11.1	75	20.3	23	6.2

Table 4.8 is on maintenance of learning facilities. The table shows that item one on maintenance of books in the library got 244 respondents representing 66 percent who agreed that relevant books in the library were adequately maintained, 27 respondents representing 7 percent were neutral while 99 respondents representing 27 percent disagreed. This shows that the books were adequately maintained in the library of colleges of education in north-west geo-political zone, Nigeria. Also on the second item, which has to do with the maintenance of white and black boards, 246 respondents representing 66 percent agreed that the boards were well maintained, 23 respondents representing 6 percent were neutral while 101 respondents representing 27 percent disagreed to the statement that white and black boards were well maintained. This shows clearly that white and black boards were adequately maintained by looking at the total frequency and percentages of each respondent.

In item three which solicited for the respondents' opinions on the maintenance of chairs and tables in the respective colleges, majority of the respondents agreed that chairs and tables were maintained in the colleges. This is so because 284 respondents representing 77 percent agreed, 15 respondents representing 4 percent were neutral while 71 respondents representing 19 percent disagreed. Without fear of contradiction, one can conclude that majority of the respondents agreed that there were adequate learning facilities in colleges of education in North-west Geo-political Zone, Nigeria.

Item statements four sought the opinion of respondents on whether internet facilities are well maintained in the college. 259 respondents representing 70 percent agreed, 22 respondents representing 6 percent were neutral while 89 respondents representing 24 percent disagreed with the statement. Item statement five then sough the opinions of respondents on the maintenance of E-library in the colleges, and 210 respondents representing 56.8 percent agreed that E-library was adequately maintained in the colleges, 46 respondents representing 12 percent were neutral while 114 respondents representing 31 percent disagreed that E-library was adequately maintained in the colleges.

Item six is on the state of departmental libraries in the colleges, where 236 respondents representing 64 percent agreed that departmental libraries were adequately maintained, 36 respondents representing 10 percent were neutral while 98 respondents representing 26 percent disagreed. The result shows that departmental libraries were adequately maintained because most departments have libraries. Item seven assessed the opinions of respondents on the maintenance of seats in the library. 246 respondents representing 67 percent agreed that seats were adequately maintained in the colleges, 30 respondents representing 8 percent were neutral while 91 respondents representing 25

percent disagreed that seats were adequately maintained in the library. The result shows that seats were adequately maintained in libraries of colleges within the zone. Item eight is on the opinions of respondents on the maintenance of E-journals in colleges within the zone; 206 respondents representing 56 percent agreed that E-journals were adequately maintained, 55 respondents representing 15 percent were neutral while 109 respondents representing 29 percent disagreed that E-journals were adequately maintained. The result indicated that E-journals were adequately maintained for learning in the colleges in the zone. On the maintenance of still pictures in the colleges, 148 respondents representing 40 percent agreed that still pictures were adequately maintained in the colleges, 52 respondents representing 14percent were neutral while 170 respondents representing 46 percent disagreed that still pictures were adequately maintained in the colleges. It means that still pictures were adequately maintained.

Item nine on the opinion of respondents on the maintenance of fanned boards;193 respondents representing 52.2 percent agreed that fanned boards were adequately maintained, 49 respondents representing 13 percent were neutral while 128 respondents representing 35 percent disagreed that fanned boards were adequately maintained. Item ten then sough the opinion of respondents on the maintenance of bulletin boards, and 231 respondents representing 62 percent agreed that bulletin boards were adequately maintained, 41 respondents representing 11.1 percent were neutral while 98 respondents representing 26 percent disagreed. The result shows that bulletin boards were adequately maintained. The analysis of the data collected revealed that with the exception of items six and nine that were inadequate, all the other items were adequately maintained in the colleges of education in North-West Geo-political zone

Table 4.9 Opinions of Respondents on Provision of Welfare Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Staff quarters are adequately provide in the college	52	14.1	176	47.6	39	10.5	73	19.7	30	8.1
2	Hostel accommodation are adequately provided in the college	42	11.4	190	51.4	33	8.9	79	21.4	26	7
3	Health care services are adequately provided in the college	42	11.4	219	59.2	30	8.1	48	13	31	8.4
4	Fire extinguishers are adequately provided in the college	43	11.6	196	53	36	9.7	66	17.8	29	9.7
5	Cafeterias canteen are adequately provided in the college	39	10.5	172	46.5	37	10	86	23.2	36	9.7
6	Inter and intra college transportation are well provide in the college	45	12.2	139	37.6	47	12.7	106	28.6	33	8.9
7	Staff toilets within offices are adequately provided in the college	50	13.5	160	43.2	35	9.5	86	23.2	39	10.5
8	Students toilets in the hostel are provided in the college	44	11.9	163	44.1	33	8.9	98	26.5	32	8.6
9	Resting rooms with enough seats for staff are adequately provided in the college	32	8.6	157	42.4	38	10.3	108	29.2	35	9.5
10	Break periods for staff and students are provided in the college	36	9.7	180	48.6	48	13	81	21.9	25	6.8
11	Security service at all places within school premises are provided in the college	56	15.1	180	48.6	35	9.5	65	17.6	34	9.2
12	Health insurance services are adequately provided in the college	32	8.6	181	48.9	48	13	81	21.9	28	7.6
13	Washing detergent are provided in the college	29	7.8	128	34.6	62	16.8	113	30.5	38	10.3
14	Drugs in the clinic are adequately provided in the college	23	6.2	169	45.7	60	16.2	90	24.3	28	7.6
15	Dormitories' shops are adequately provided in the college	48	13	183	49.5	52	14.1	68	18.4	19	5.1
16	Annual leave is adequately provided in the college	54	14.6	189	51.1	39	10.5	66	17.8	22	5.9
17	Maternity leave is adequately provided in the college	54	14.6	196	53	43	11.6	58	15.7	19	5.1

Table 4.9 analyses the opinions of respondents on the item statements presented drew and analyses on opinions of respondents on maintenance of welfare facilities. Table 4.3.7 above revealed the frequency distribution of provision of welfare facilities; for instance, items one to three which were on staff quarters, hostel accommodation and health care service facilities which were adequately provided. This can be seen where 228 respondents representing 62 percent agreed that staff quarters were adequately provided, 39 respondents representing 10 percent were neutral while 103 respondents representing 28 percent disagreed. Likewise, hostel accommodation and health care service facilities were

adequately provided and to justify the statement 232 respondents representing 63 percent agreed, 101 respondents representing 28 percent disagreed and 33 respondents representing .9 percent were undecided, as regards hostel accommodation. But for health care facilities, 261 respondents representing 71 percent agreed, 30 respondents representing 8 percent were undecided while 79 respondents representing 21 percent disagreed. Looking at the majority opinion one can conclude that, staff quarters, student hostels and health care service facilities are adequately provided.

In subsequent items which starts the statement that fire extinguishers were adequately provided. Looking at the number of respondents that agreed that 239 respondents (65percent) agreed with the statement, 36 respondents representing 10 percent undecided while 95 respondents (25 percent) agreed that fire extinguisher were adequately provided. It shows that majority agreed, therefore it can be concluded that fire extinguishers were adequately provided. In item five on the provision of cafeteria canteens, 211 respondents (57 percent) agreed that there were adequate provision of cafeteria, canteens in the colleges, and 37 respondents representing 10 percent were undecided while 122 respondents representing 33 disagreed. For inter and intra college transportation, 184 respondents representing 50 percent agreed that they are adequately provided, 47 respondents representing 13 percent undecided while 139 respondents representing 37 percent disagreed.

Sequentially, staffs toilets within offices are adequately provided in the colleges because 210 respondents with 57 percent agreed that staff toilets were provided within staff offices 35 respondents with 9 percent were undecided and 115 respondents with 34 percent disagreed. Looking at the majority opinion one can be justified to say that most of the staff had toilets in their respective offices; and on subsequent items like students' toilets, hostels

and classes they were adequately provided. Looking at the number of respondents that agreed, that is 207 respondents (56 percent) agreed with the statement, 33 respondents representing .9 percent undecided while 130 respondents (35 percent) disagreed with the statement that there were adequate provision of toilets in students hostel accommodation.

Conclusively, items nine, ten, thirteen, fourteen and fifteen on resting room, break period, security service, health insurance services, washing detergent, dormitories shops and drugs were perceived to be adequately provided in the colleges. For resting room, 189 respondents representing 51 percent agreed that resting rooms were adequately provided, 38 respondents representing 10 percent were undecided while 143 respondents representing 39 percent disagreed. For break period, 216 respondents representing 58 percent agreed that break periods were adequately provided, 48 respondents representing 13 percent were undecided while 106 respondents representing 29 disagreed. For the provision of security services, 236 respondents representing 64 percent agreed that security was adequately provided in the colleges, 35 respondents representing 9 percent were undecided while 99 respondents representing 27 percent disagreed. For health services, 213 respondents representing 57 percent agreed, 48 respondents representing 13 percent were undecided while 109 respondents representing 30 percent disagreed. On the provision of washing detergent in colleges, 157 respondents representing 42 percent agreed that detergent was adequately provided for washing, 62 respondents representing 17 percent were undecided while 151 respondents representing 41 disagreed. For dormitory shops, 192 respondents representing 52 percent agreed that dormitory shops were adequately provided, 60 respondents representing 16 percent were undecided while 118 respondents representing 32 percent disagreed. On the provision of drugs in the college clinics, 231 respondents representing 63 percent agreed that

drugs were adequately provided in the colleges, 52 respondents representing 14 percent were undecided while 87 respondents representing 23 percent disagreed. For the provision of maternity leave in the colleges, 250 respondents representing 67 percent agreed that, 43 respondents representing 12percent were undecided while 77 respondents representing 21 percent disagreed

Table 4.10 Opinions of Respondents on Maintenance of Welfare Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

S/N		SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Staff quarters are adequately maintain in the college	46	12.4	158	42.7	42	11.4	95	25.7	29	7.8
2	Hostel accommodation are adequately maintain in the college	39	10.5	173	46.8	44	11.9	92	24.9	22	5.9
3	Health care services are adequately maintain in the college	48	13	211	57	33	8.9	68	18.4	10	2.7

4	Fire extinguishers are adequately maintain in the college	40	10.8	170	45.9	44	11.9	96	25.9	20	5.4
5	Cafeterias canteen are adequately maintain in the college	30	8.1	162	43.8	48	13	106	28.6	24	6.5
6	Inter and intra college transportation are well maintain in the college	40	10.8	150	40.5	37	10	118	31.9	25	6.8
7	Staff toilets within offices are adequately maintain in the college	33	8.9	179	48.4	35	9.5	89	24.1	34	9.2
8	Students toilets in the hostel are maintain in the college	29	7.8	166	44.6	37	10	104	28.1	34	9.2
9	Resting rooms with enough seats for staff are adequately maintain in the college	40	10.8	163	44.1	37	10	99	26.8	31	8.4
10	Break periods for staff and students are maintain in the college	36	9.7	175	47.3	45	12.2	82	22.2	32	8.6
11	Security service at all places within school premises are maintain in the college	41	11.1	183	49.5	48	13	69	18.6	29	7.8
12	Health insurance services are adequately maintain in the college	45	12.2	174	47	51	13.8	68	18.4	32	8.6
13	Washing detergent are maintain in the college	48	13	118	31.9	74	20	109	29.5	21	5.7
14	Drugs in the clinic are adequately maintain in the college	49	13.2	149	40.3	59	15.9	87	23.5	26	7
15	Dormitories' shops are adequately maintain in the college	45	12.2	183	49.5	53	14.3	64	17.3	25	6.8
16	Annual leave is adequately maintain in the college	49	13.2	189	51.1	45	12.2	68	18.4	19	5.1
17	Maternity leave is adequately maintain in the college	51	13.8	193	52.2	47	12.7	59	15.9	20	5.4

Table 4.10 gave an in-depth insight in to the analysis of respondents 204 respondents representing 65 percent agreed that staff quarters were adequately maintained, 42 respondents representing 11 percent were undecided whereas 124 respondents representing 24 percent disagreed. This shows that staff quarters were adequately maintained. Likewise 212 respondents representing 57 percent agreed that there was adequate maintenance of hostel accommodation, 44 respondents representing 12 percent were undecided while 114 respondents representing 31percent disagreed.

The frequency of agreement on item 5.8 showed that the respondents agreed that health care service facilities were maintained. This is clearly seen in the table by the high

percentage scores on the items on maintenance of health care service facilities. 25 respondents representing 70 percent agreed that there was adequate maintenance while 78 respondents representing 21 percent were of the opinion that there was no adequate maintenance of health care service facilities; only 33 respondents representing .9 percent in the colleges were undecided.

Item four on adequate maintenance of fire extinguishers showed the where responses of the respondents were 210 respondents representing 57 percent were of the opinion that there was adequate maintenance of fire extinguisher, 116 respondents representing 31 percent disagreed that there was proper maintenance of the fire extinguisher and 44 respondents representing 12 percent were undecided on the item statement.

Item five is on whether cafeterias, canteen were adequately maintained; the opinion of the majority of the respondents confirmed that there was adequate maintenance of cafeterias and canteen because 192 respondents representing 52 percent agreed that there was adequate maintenance of cafeterias and canteen, while 130 respondents representing 35 percent disagreed with the statement. And 48 respondents representing 13 percent were undecided at all with the statement. This analysis showed that colleges of education in North-West Geo-political Zone, Nigeria should adequately maintained cafeterias and canteen to ease the staff and students in solving their biological needs.

Item six was on maintenance of inter and intra college transportation was adequate maintenance. The table showed that majority agreed that there was maintenance of inter and intra college transportation for instance in the table frequency of the respondents showed that 190 respondents representing 51 percent agreed that there was maintenance of inter and intra transportation while 143 respondents representing 39 percent agreed that there was no

adequate maintenance of inter and intra College transportation and 37 respondents representing 10 percent were completed undecided. The analysis was for both provision and maintenance and both were adequate.

On the staff toilet within offices in table 4.6 gave an in-depth insight of the analysis where 159 respondents representing 57 percent agreed that staff toilet within offices were maintained, through regular sweeping and cleaning whereas 123 respondents representing 33 percent disagreed and 35 respondents representing 10 percent were undecided. This showed that staff toilet within offices were adequately maintained. It is not enough to only prevent diseases in the colleges there must be facilities to improve the general health and hygiene. On students' toilets in the hostel and around classes, the total respondents clearly indicated that the toilets for students were not maintained. 195 respondents representing 53 percent that there is maintenance of student toilet at hostel and around their classes while 138 respondents representing 37 percent disagreed and 37 respondents representing 10 percent were undecided, this showed the degree of frequency with which colleges of education apply non-chalet attitude in maintaining toilet facilities for students and staff.

Item nine was on resting room with enough seats for staff. According to the responses of the respondents in the table, 203 respondents representing 55 percent were of the opinion that there was maintenance of the resting room for the staff while 130 respondents representing 35. percent disagreed and said that there was no proper maintenance of the resting room with enough seat for the staff and 37 respondents representing 10 percent were undecided on the item statement. This implied that generally, resting room for staff are adequately provided but without enough facilities and maintenance.

On item ten dealing with break period for staff and students, the opinion on the majority of respondents confirmed that there was room for break period for staff and students during lecture time. For instance, 211 respondents representing 57 percent agreed that there is consistence in maintaining this period, while 114 respondents representing 31 percent disagreed with the statement that there is break period for both staff and students in respect of colleges of education in North-West Geo-political zone Nigeria; and about 45 respondents representing 12 percent were undecided on the statement. This analysis showed that colleges of education in North-West Geo-Political Zone, Nigeria need to have time for break for both staff members and students so that work will not be continuous throughout the day.

Item eleven was on adequate maintenance of security services at all places within colleges' premises. The table showed that majority agreed that there was maintenance of security services in the college premises, the frequency of the respondents showed 224 respondents representing 66 percent agreed that there was maintenance of security services in the colleges, while 98 respondents representing 21 percent disagreed that there was adequate maintenance of security services and 48 respondents representing 13 percent were undecided. The analysis was for both provision and maintenance. The table also showed that health insurance service was adequately provided and maintained in most of the colleges of education. About 219 respondents representing 59 percent agreed that there was maintenance of health insurance services, while 100 respondents representing 27 percent disagreed and opined that there was no adequate maintenance of health insurance services and 51 respondents representing 14 percent were undecided on the statement. Health insurance services for improving general health and for this reason should be implemented and be maintained. In general washing detergents were provided and maintained i.e 166

respondents representing 45 percent agreed that provision of washing detergent was adequately maintained while 130 respondents representing 35 percent disagreed that washing detergents were adequately maintained and 74 respondents representing 20 percent were undecided.

In item fifteen which was on drugs in clinic to prevent diseases and injury in the college system, because there must be facilities for improving general health and for this reason clinics should be maintained. Proper construction, sunlight and frequent cleaning with sufficient drugs are the factors to consider. The table gave an in-depth insight of the analysis, as 228 respondents representing 62 percent agreed that there was maintenance of drugs in clinic, while 89 respondents representing 24 percent disagreed and opined that there was no proper maintenance of drugs in the clinic and another 53 respondents representing 14 percent were undecided. In conclusion therefore drugs in clinic were adequately provided.

For item sixteen which was on maintenance of annual leave among the staff in the colleges, the table showed that the greater number of respondents i.e. 238 representing 64.percent agreed that there is adequate maintenance of annual leave among staff while 87 respondents representing 24 percent disagreed that there was no maintenance of annual leave among the staff in colleges of education and 45 respondents representing 12 percent were undecided about the statement.

Item seventeen was on maintenance of maternity leave among female staff in the colleges. The frequency on the item showed that 244 frequency representing 66 percent agree that there is maintenance of maternity leave among the female staff while 79 respondents representing 21 percent disagreed and another 47 respondents representing 13 percent were undecided

Table 4.11 Opinions of Respondents on Provision of Recreation and Game Facilities in Colleges of Education in North-west Geo-political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Standard football field is well provided in the college	54	14.6	192	51.9	28	7.6	79	21.4	17	4.6
2	Standard basketball field is well provided in the college	44	11.9	194	52.4	30	8.1	82	22.2	20	5.4
3	Standard volleyball field is well provided in the college	40	10.8	188	50.8	44	11.9	78	21.1	20	5.4
4	Standard swimming pool is adequately provided in the college	24	6.5	79	21.4	29	7.8	172	46.5	66	17.8
5	Game coaches are provided in the college	39	10.5	188	50.8	30	8.1	91	24.6	22	5.9
6	Table tennis equipment are adequately provided in the college	37	10	170	45.9	47	12.7	87	23.5	29	7.8
7	First aid equipment are well provided in the college	44	11.9	178	48.1	50	13.5	72	19.5	26	7
8	Long jump facilities are adequately provided in the college	46	12.4	77	20.8	66	17.8	150	40.5	31	8.4
9	Discus facilities are well provided in the college	35	9.5	65	17.6	62	16.8	161	43.5	47	12.7
10	Multi-purpose field with synthetic floor are adequately provided in the college	25	6.8	84	22.7	54	14.6	167	45.1	40	10.8
11	Athlete dressing rooms are well provided in the college	29	7.8	143	38.6	51	13.8	105	28.4	42	11.4
12	Referee dressing room is well provided in the college	38	10.3	155	41.9	48	13	96	25.9	33	8.9
13	Technical room is adequately provided in the college	46	12.4	154	41.6	55	14.9	84	22.7	31	8.4
14	Store room is well provided in the college	47	12.7	176	47.6	46	12.4	71	19.2	30	8.1
15	Ticket office is adequately provided in the college	46	12.4	152	41.1	51	13.8	88	23.8	33	8.9
16	Warehouse is adequately provided in the college	29	7.8	170	45.9	59	15.9	83	22.4	33	8.9
17	Wire-net fencing is provided in the college	29	7.8	166	44.6	59	15.9	83	22.4	33	8.9
18	Bathroom is well provided in the college	30	8.1	160	43.2	55	14.9	100	27	25	6.8
19	Press room is adequately provided in the college	33	8.9	161	43.5	51	13.8	88	23.8	37	10

Table 4.11 carries respondents' opinions serial number, item statement, provision of the item statement, and the second table on the maintenance of the same item statement with frequencies and percentages. In the analysis of the item statement on the provision of recreation and games facilities had. 246 respondents (66.percent) agreed that there is adequate standard football field in the respective colleges of education, while 96 respondents (26 percent) disagreed with the statement and about 28 respondents representing 8 percent were undecided on the statement. On item two on the table which said that standard basket ball field was adequately provided, 238 respondents agreed with the statement with

64.percent and at the same time 102 respondents (28 percent) disputed the statement), that there was no adequate basket ball field and 30 respondents (8. percent) were undecided as to whether there is adequate basket ball field.

Item three on standard volley ball field, 228 respondents (62 percent) agreed that there is volley ball field while 98 respondents with 26. percent disagreed that there inadequate volley ball field and 44 respondents (12 percent) were undecided on the statement. Looking at these three statements on adequacy, this show that most of the colleges have no standard field for football, volley ball and basket ball according to the respondents' opinions

In the same table and item four which is on standard swimming pool, about 103 respondents agreed with 28 percent that there is adequate swimming pool, while 138 respondents with 54 percent disagreed with the statement that there is no adequate standard swimming pool, any in colleges of education in North-West Geo-political Zone, Nigeria and 29 respondents with 8 percent had undecided on the statement.In the same vein, item five which said that game coaches under these item statements showed that 227 respondents (61 percent) agreed that there were adequate game coaches in colleges of education in North-West Geo-political Zone, while 113 respondents representing 31 disputed the opinion that there were adequate game coaches in colleges of education and 30 respondents (8. percent) chose undecided on the statement.

According to the rating of table tennis equipment they were adequately provided, thus 207 respondents representing 56 percent agreed with this submission, while 116 respondents representing 31 disagreed and 47 respondents representing 13 percent were undecided. On the provision of first aid equipment, 222 respondents representing 60 percent agreed that first aid equipment were adequately provided while 98 respondents representing

26 percent disagreed and 50 respondents representing 14 percent were undecided. For long jump facilities, 123 respondents representing 33 percent agreed that long jump facilities were adequately provided, 181 respondents representing 49 percent said that long jump facilities were not adequately provided and 66 respondents representing 18 percent were undecided. For high jump take off boards, officials hammer throwing circle multipurpose field with synthetic floor, athlete dressing rooms, technical rooms respectively; all the respondents disagreed that there is adequate provision of these recreation and games facilities in colleges of education in North-West Geo-political Zone Nigeria. This analysis generally showed that colleges of education were the ones responsible for ensuring that all necessary facilities were provided through close supervision, as in the case of the above table where majority of respondents disagreed that adequate recreation and games facilities were provided in the colleges of education in North-West Geo-political zone.Opinions of respondents on maintenance of recreation and games facilities in colleges of education in North-West Geo-political Zone Nigeria that is, on the provision and maintenance of recreation and games facilities in colleges of education in North-West Geo-political zone, Nigeria is presented in Table 4.12 shows details of the result

Table 4.12: Opinion of respondents on maintenance of recreation and game facilities in colleges of education in North-west Geo-political Zone, Nigeria

S/N	STATEMENT	SA		A		UND		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1	Standard football field is well maintain in the college	52	14.1	189	51.1	27	7.3	79	21.4	23	6.2
2	Standard basketball field is well maintain in the college	43	11.6	197	53.2	39	10.5	78	21.1	13	3.5
3	Standard volleyball field is well maintain in the college	33	8.9	191	51.6	39	10.5	88	23.8	19	5.1
4	Standard swimming pool is adequately maintain in the college	25	6.8	55	14.9	43	11.6	189	51.1	58	15.7
5	Game coaches are maintain in the college	33	8.9	173	46.8	48	13	90	24.3	26	7
6	Table tennis equipment are adequately maintain in the college	41	11.1	179	48.4	32	8.6	79	21.4	39	10.5
7	First aid equipment are well maintain in the college	44	11.9	181	48.9	32	8.6	73	19.7	40	10.8
8	Long jump facilities are adequately maintain in the college	39	10.5	84	22.7	44	11.9	161	43.5	42	11.4
9	Discus facilities are well maintain in the	32	8.6	73	19.7	46	12.4	167	45.1	52	14.1

	college										
10	Multi-purpose field with synthetic floor are adequately maintain in the college	47	12.7	68	18.4	49	13.2	161	43.5	45	12.2
11	Athlete dressing rooms are well maintain in the college	33	8.9	136	36.8	57	15.4	98	26.5	46	12.4
12	Referee dressing room is well maintain in the college	43	11.6	154	41.6	54	14.6	77	20.8	42	11.4
13	Technical room is adequately maintain in the college	44	11.9	155	41.9	54	14.6	72	19.5	44	11.9
14	Store room is well provided in the college	45	12.2	165	44.6	52	14.1	69	18.6	39	10.5
15	Ticket office is adequately maintain in the college	41	11.1	161	43.5	56	15.1	76	20.5	36	9.7
16	Warehouse is adequately maintain in the college	30	8.1	165	44.6	56	15.1	86	23.2	33	8.9
17	Wire-net fencing is maintain in the college	41	11.1	163	44.1	49	13.2	84	22.7	33	8.9
18	Bathroom is well maintain in the college	36	9.7	166	44.9	44	11.9	81	21.9	43	11.6
19	Press room is adequately maintain in the college	32	8.6	175	47.3	53	14.3	83	22.4	27	7.3

From Table 4.12 result show that for item one standard football field, 241 respondents -with 65 percent agreed that, football fields were maintained by the colleges management, while 102 respondents with 28 percent disagreed that there was adequate maintenance of the football fields and 27 respondents with 7 percent were undecided. By looking at the total number of respondents whose agreed that there was proper maintenance of football field in colleges of education in North-West Geo-Political Zone Nigeria, the management and government should make effort to continue to upgrade and maintain football fields to encourage recreation and games most especially football for health and exchange of friendship among other colleges in the country. The subsequent item which said that standard basket ball fields had 240 respondents with 65 percent agreeing that there is maintenance of basket ball courts, while 91 respondents with 25 percent disagreed and supported that there was no adequate maintenance of the field and 39 respondents with 10 percent were undecided. Going by the analysis of the item, it clearly showed that there is adequate maintenance of the basket ball court in the respective colleges of education in

North-West Geo-political Zone, so college managements should make it workable and attractive to encourage basket ball game Item three which is on standard volley ball court the opinion of respondents were calculated; 224 respondents agreed that there is maintenance of the volley ball court while 107 respondents with 29 percent disagreed that there was no maintenance of volley ball court in colleges of education in North-West Geo-political zone Nigeria and only 39 respondents did not say anything (undecided). A good number of the respondents who were the majority agreed that there is maintenance of the volley ball court as well as recreation and games in the colleges. Department of Physical and Health Education and Sport Committee should take notice of providing necessary recreation and games facilities and the available one should be maintained.

According to the table item four was on standard swimming pool and the opinions of respondents were calculated. 80 respondents representing 22 percent agreed that there was maintenance of the swimming pool. Another 247 respondents with 66.8 percent agreed that, there was no maintenance of the swimming pool in colleges of education in North-West Geo-political Zone and 43 respondents representing 12 percent were undecided. Thus majority of respondents agreed that there was no maintenance of the swimming pool and recreation facilities in colleges of education.

Looking at the rating analysis, the next set of items were in table tennis equipment, first aid equipment, long jump high jump take off board, hammer throwing circle, multipurpose field with synthetic floor, referee dressing rooms, technical room, store room, ware house, ticket office, wire net fencing, bath rooms, press room and spectator's room. Respondents all agreed that they were not adequately maintained and all the facilities need servicing, repairs

and overhauling as a way of maintaining them. This can affect the quality of education in the college of education in North-West Geo-political zone

4.4 Hypotheses Testing

Ten hypotheses were formulated and tested for this study. The hypotheses were based on data collected on the terms related to the topic – "Assessment of provision and maintenance of school plant in colleges of education in North-West Geo-political zone, Nigeria". The testing was on all items or variables related to provision and maintenance of school plant in colleges of education in North-West Zone.

Also the testing of null hypotheses (Ho) focused mainly on the assessment of provision and maintenance of school plant. The one way analysis of variance (ANOVA), post Hoc and Scheffe's test were employed in testing the null hypotheses. The level of significance set for the study is 0.05 ($P < 0.05$). This means that when the probability value is lower than the level of significance set for the study, the hypothesis is rejected. But if on the other hand the probability value is higher than the level of significance, the hypothesis is retained. Where the hypothesis was rejected, Schaffer's test was used to determine the differences in respondents' opinions.

Null Hypothesis One:

H01There is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff, union leaders and students' representatives regarding the adequacy of provision of infrastructural facilities in the college campuses in North-West Geo-political zone, Nigeria. The data collected in respect of the item on provision of infrastructural facilities in colleges of education in North-West Geo-Political Zone Nigeria (items 1 – 11) of the questionnaire were put together to analyze the opinions pertaining to the adequacy of provision

of infrastructural facilities. The one-way analysis of variance (ANOVA) was used because of the multiple level of independent variables. The opinions of the management staff, teaching staff, senior non teaching staff, union leaders and students' representatives were used because of their advantage position about the utilization of infrastructural facilities in the colleges. The test is summarized in Table 4.13

Table 4.13 Summary of One Way Analysis of Variance (ANOVA) on the Provision of Infrastructural Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	**Sum of squares**	**Df**	**Mean square**	**F Calculated**	**Pro**
Between Groups	53.876	3	17.959		
Within groups	16061.054	370	43.883	0.746.	.409
Total	**16114.930**	**373**			

The test indicated that there is no significance difference in the opinions of respondents with F calculated 0.746 at 3df 373 at 0.05 level of significance. F calculated 0.746 is greater than P value of .409. This means that there is no significance difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and student's representative regarding the provision of infrastructural facilities on the campuses of the colleges. Therefore, the null HO_1 is retained, meaning that there is no significant difference in the opinions of the respondents on the provision of infrastructural facilities in colleges of education in North-West Geo-political zone.

Null Hypothesis Two:

H02:There is no significant difference in the opinions of respondents on the level of maintenance of infrastructural facilities in colleges of education in North-West Geo-political

Zone, Nigeria. The items that formed the bases for this hypothesis are 12 – 22 of the questionnaire. The result of the opinions of respondents is converted to data which is presented in Table 4.14. The one-way analysis of variance (ANOVA) was used due to the multiple level of the independent variables.

Table 4.14: Summary of one way ANALYSIS of variance (ANOVA) on the Maintenance of Infrastructural Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean square	F calculated	Prob.	
Between Groups	161.203	3	53.734			
Within Groups	13855.340	370	37.856	1.419	0.237	4.95
Total	**14016.543**	**373**				

Table 4.14 above indicated that there is no significant difference in the opinions of respondents used for the study. The F. calculated value is 1.419 at 3df 373 at 0.05 level of significance. F. calculated 1.419 is greater than P value of 0.237. This means that there is no significant difference in the opinions of respondents in the maintenance of infrastructural facilities in colleges of education in North-West Geo-political Zone, Nigeria. Therefore, the null hypothesis was retained.

Null Hypothesis Three:

H03: There is no significant difference in the opinions of respondents on the adequacy of provision of teaching and learning facilities in colleges of education in North-West Geo-political Zone, Nigeria. In order to gather data used in answering the research question for this hypothesis, seventeen item statements were made and subjected to respondents' opinions using the

questionnaire. Items 1 – 17 of the questionnaire were administered to management staff, teaching staff, senior non-teaching staff union leaders and students' representatives in the sampled colleges. The data collected was presented in Table 4.15 where one-way analysis of variance (ANOVA) was used due to the multiple levels of the independent variables involved in the study. The target population (respondent(s)) was used because they are custodians to the various functions in the colleges.

Table 4.15 Summary of One Way Analysis of Variance (ANOVA) on the Provision of Teaching Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean Square	F calculated	Prob.
Between Groups	206.494	3	68.831		
Within Groups	43694.925	370	119.385	.777	0.631
Total	**43901.419**	**373**			

Table 4.15 indicated a no significant difference in the opinions of respondents on provision of teaching and learning facilities in the colleges. From table 4.4.3 the F. calculated 0.777 at 3df 373 at 0.05level of significance. F-calculated 0.577 is greater than P 0.631. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and student's representatives regarding the provision of teaching and learning facilities on the college campuses. Therefore, the null hypothesis is retained and it read: there is no significant difference in the opinions of respondents on the provision of teaching and learning facilities.

Null Hypothesis Four:

H04: There is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students representatives regarding the level of maintenance of teaching facilities in colleges of education in North-West Geo-political Zone, Nigeria. The data collected in respect of adequacy of maintenance of teaching and learning

facilities cover items 1 – 34 of the questionnaire. The one-way analysis of variance (ANOVA) was used because of the multiple levels of independent variables. The category of respondents used was the management staff, teaching staff, senior non teaching staff union leaders, and students' representatives of the sampled colleges of education, due to their vantage position in the day to day activities of the teaching and learning process. The result is tabulated in Table 4.16

Table 4.16: Summary of One Way Analysis of Variance (ANOVA) on the Maintenance of Teaching Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean square	F calculated	Prob.
Between Groups	174.695	3	58.232		
Within Groups	40163.794	370	109.737	1.5.31	.662
Total	**40338.489**	**373**			

Table 4.16 shows no significant difference in the opinions of the respondents. From the table above, F calculated 1.531 at 3df 373 at 0.05 significance, F calculated 1.531 is more than P value 0.662. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students representatives regarding the adequacy of maintenance of teaching facilities in the college campuses. Therefore, the null hypothesis (Ho) is retained. That is to say there is no significant difference in the opinions of respondents regarding the maintenance of teaching and learning facilities in colleges of education in the North-West Geo-political Zone

Null Hypothesis Five

H05: There is no significant difference in the opinions of management staff, teaching staff, senior non–teaching staff union leaders and students' representatives regarding the

adequacy of provision of learning facilities in colleges of education in North-West Geo-political Zone, Nigeria. The management staff, teaching staff, senior non-teaching staff union leaders and students representatives of the sampled colleges were used as respondents for generating data for the testing of hypothesis 5 (Ho5). The opinions gathered were converted to data. One-way analysis of variance (ANOVA) was used due to the multiple levels involved. The result of the test is presented in Table 4.17

Table 4.17: Summary of One Way Analysis of Variance (ANOVA) on the Provision of Learning Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	**Sum of squares**	**Df**	**Mean square**	**F calculated**	**Prob.**	
Between Groups	239.254	3	79.751			
Within Groups	21482.327	366	58.695	1.359	.255	4.95
Total	**21721.581**	**369**				

Table 4.17 above F-calculated 1.359 at 3df 373 at 0.05 level of significance, the F calculated 1.359 is greater than the probability level of significance P value of 0.255. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students representatives regarding the adequacy of provision of learning facilities in the colleges' campuses. Therefore, the null hypothesis is retained.

Null Hypothesis Six:

H06: There is no significant difference in the opinions of respondent regarding the adequacy of maintenance of learning facilities on. the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students representatives were sought in order to collect data for testing hypothesis 6 (HO_6). The opinions were tested using one-way analysis of

variance (ANOVA) due to the multiple levels of independent variables involved. The result of the test is presented in Table 4.18.

Table 4.18 Summary of One Way Analysis of Variance (ANOVA) on the Maintenance of Learning Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean Square	F calculated	Prob.
Between Groups	150.164	3	50.055		
Within Groups	23902.326	366	65.307	.766	.513
Total	**24052.489**	**369**			

The result showed that there is no significant difference in the opinions of respondents regarding the adequacy of maintenance of welfare facilities in college campuses. This is because the F-calculated which is 0 .766 is greater than P value .513 This shows that F-calculated that is greater than P value at 0.05 alpha. Thus, the null hypothesis is (HO_6) is retained. This means that there is no significant difference in the opinions of respondents on the level of maintenance of learning facilities in colleges of education in North-West Geo-political Zone, Nigeria.

Null Hypothesis Seven:

H07: There is no significant difference in the opinions of respondents on the adequacy of provision of welfare facilities in the colleges' campuses. To gather data for HO_7, management staff, teaching staff, senior non- teaching staff union leaders and students representatives of the sampled colleges was used as respondents. The result of their opinions were converted to data and presented in Table 4.19 using the one-way analysis of variance (ANOVA) due to the multiple levels of the independent variables.

Table 4.19: Summary of One Way Analysis of Variance (ANOVA) on the Provision of SWelfare Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean square	F calculated	Prob.
Between Groups	506.339	3	168.780		
Within Groups	44080.093	370	120.437	1.401	.242
Total	**445586.482**	**373**			

In Table 4.19, F calculated 1.401 at 3df 373 at 0.05 level of significances, the critical value 4.95 is more than both F calculated 1.401 is more than P value 0.242. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and student's representatives regarding the adequacy of provision of welfare facilities on the college campuses, therefore, the null hypothesis which states that, there is no significant difference in the opinions of respondents on the adequacy of provision of welfare facilities.

Null Hypothesis Eight:

H08:There is no significant difference in the opinions of respondents regarding the adequacy of maintenance of facilities in colleges of education in North-West Geo-political Zone, Nigeria. To collect data for Ho8, management staff, teaching staff, senior non-teaching staff union leaders and student's representative of the sample colleges for the study. The result their opinions were converted to data and presented in Table4.20 using the one-way analysis of variance (ANOVA) due to the multiple independent variables

Table 4.20: Summary of One Way Analysis of Variance (ANOVA) on the Maintenance of Welfare Facilities on the College of Education in North-West Geo-political Zone, Nigeria

Status	Sum of	Df	Mean	F	Prob.

	squares		Square	calculated	
Between Groups	859.984	3	286.661		
Within Groups	42568.787	370	116.308	2.465	.062
Total	**43428.770**	**373**			

Table 4.20 above F calculated 2.465 at 3df 373 at 0.05 level of significance, the critical value 4.95 is more than F calculated 2.465 is more than P value 0.062. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students representatives regarding the adequacy of welfare facilities in the college campuses. Thus null hypothesis (H_o8) of this study is also retained. The mean difference is significant at the 0.05 level

From Table 4.20 it can be deduced that the mean difference is not significant at the observed level 0.05 for the study. It also indicated that the respondents were not significantly different.

Null Hypothesis Nine:

H09: There is no significant difference in the opinion of respondents regarding the adequacy of provision of recreation and games facilities in colleges of education in North-West Geo-political Zone, Nigeria

Table 4.21: Summary of One Way Analysis of Variance (ANOVA) on the Provision of Recreation and Game Facilities in the Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean square	F calculated	Prob.
Between Groups	584.244	3	194.748		
Within Groups	53010.537	370	144.838	1.345	.260
Total	**53594.781**	**373**			

Table 4.21 indicated no significant difference in the opinions of the respondents. The F-calculated 1.345 is greater than P value .260 that the observed level of significance which is 0.05 (P M 0.05). Therefore, the null hypothesis (HO_9) is retained, meaning that there is no significant difference in the opinions of respondents on the adequacy of provision of recreation and games facilities in the college campuses in North-West Geo-political zone, Nigeria.

Null Hypothesis Ten:

H010: There is no significant difference in the opinions of respondents on the level of maintenance of recreation and games facilities in colleges of education in North-West Geo-political Zone, Nigeria. The opinions of the respondents were converted to data and used to test Ho10. The one-way analysis of variance (ANOVA) was used due to the multiple levels of the independent variable involved. The result of the test is presented in table 4.22

Table 4.22: Summary of One Way Analysis of Variance (ANOVA) on the Maintenance of Recreation and Games Facilities in Colleges of Education in North-West Geo-political Zone, Nigeria

Status	Sum of squares	Df	Mean squares	F calculated	Prob.
Between Groups	604.232	3	201.411		
Within Groups	63151.430	370	172.544	1.167	.322
Total	**63755.430**	**373**			

Table 4.22 indicated that there is no significant difference in the opinions of respondents. The F calculated 1.167at 3df 373 at 0.05 level of significance, the F calculated 1.167 is greater than. P value 0.322. This means that there is no significant difference in the opinions of management staff, teaching staff, senior non-teaching staff union leaders and students' representatives regarding the levels of maintenance of recreation and games facilities in the colleges of education in North-West Geo-political Zone, Nigeria. Therefore, the null hypothesis is retained, that is to say there is no significant difference on the provisions of respondents regarding the level of maintenance of recreation and games facilities in the colleges of education in North-West Geo-political Zone, Nigeria.

Table 4.22 showed that there is no significant difference in the opinions of the respondents used for the study at the level of 0.05

4.23 Summary of Hypotheses Testing

Ten null hypotheses were tested and the summary presented in Table 4.5 showed that, all the 10 null hypotheses were retained indicating that there is no significant difference in the opinions of respondents on all the hypotheses for the study

Table 4.23 Summary of Hypotheses

Hypotheses	Statistical Method involved	Level of Sig.	Df 3	F-cal	P	F-crit	Conclusion
There is no significant difference in the opinion of respondents in the provision of infrastructural facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	.409	.746	4.95	Retained
There is no significant difference in the opinion of respondents in the maintenance of infrastructural facilities in colleges of education	ANOVA Multiple Test	0.05	3	1.419	.237	4.95	Retained

in North-West Geo-Political Zone, Nigeria							
There is no significant difference in the opinion of respondents in the provision of teaching facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	.577	.631	4.95	Retained
There is no significant difference in the opinion of respondents in the maintenance of teaching facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	.531	.662	4.95	Retained
There is no significant difference in the opinion of respondents in the provision of learning facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	1.359	.255	4.95	Retained
There is no significant difference in the opinion of respondents in the maintenance of learning facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	.766	.513	4.95	Retained
There is no significant difference in the opinion of respondents in the provision of welfare facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	1.401	.242	4.95	Retained
There is no significant difference in the opinion of respondents in the maintenance of welfare facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	2.465	.062	4.95	Retained
There is no significant difference in the opinion of respondents in the provision of recreation and games facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	1.345	.260	4.95	Retained
There is no significant difference in the opinion of respondents in the maintenance of recreation and games facilities in colleges of education in North-West Geo-Political Zone, Nigeria	ANOVA Multiple Test	0.05	3	1.167	.322	4.95	Retained

Summary of Major Findings

The following is the summary of the major findings:

1. Analysis of the provision of infrastructural facilities showed that infrastructural facilities are adequately provided in the colleges of education in North-West Geo-Political Zone, Nigeria. Therefore, success in all ramifications in teaching and learning will be expected.
2. Infrastructural facilities in colleges of education in North-West Geo-Political Zone, Nigeria are adequately maintained.

3. Teaching facilities were adequately provided with the exception of Audio—Visual Centre's and slides that were inadequately provided in colleges of education in North-West Geo-Political Zone, Nigeria.
4. Findings on the maintenance of teaching facilities revealed that, Audio-Visual Centre's and Slides were inadequately maintained, but all other items were adequately maintained.
5. On the provision of learning facilities, the analysis of the data collected revealed that departmental library and still picture were inadequate, but all other items were adequately provided in colleges of education in North-West Geo-Political Zone, Nigeria

The findings on maintenance of learning facilities revealed that, Departmental library and still picture were inadequately maintained; all other items on maintenance of learning facilities were adequately maintained.

1. The findings on provision of welfare facilities shows that above 50% of the respondents agreed that welfare facilities were adequately provided in colleges of education in North-West Geo-political Zone, Nigeria
2. There is adequate maintenance of welfare facilities in colleges of education in North-West Geo-political Zone, Nigeria
3. In provision of recreation and games facilities too, looking at the rating analysis, the following items; table tennis equipment, first aid equipment, long jump high jump take off board, hammer throwing circle, multipurpose field with synthetic floor, referee dressing rooms, technical room, store room, ware house, ticket office, wire net, ticket office, wire net fencing, bath rooms, press room and spectators' room, were not adequately provided

4. Findings on maintenance of recreation and games facilities revealed that they were not adequately maintained. All the facilities need servicing, repairs and overhauling as a way of maintaining them. This can affect the quality of education in the college of education in North-West Geo-political zone, Nigeria

4.4 Discussions of the Findings

Opinion of respondents on the provision and maintenance of facilities: lecture hall /classrooms are adequately provided and maintained with 82percrnt agreed that lecture hall/ classrooms are adequately provided and maintained while 16 percent disagreed. This shows that lecture hall/ classrooms are adequately provided in colleges of education in North- West Geo-political Zone, Nigeria. Likewise laboratories and workshops with 77 percent agreed that laboratories and workshops are adequately provided while 18 percent disagreed. This shows clearly that, laboratories and workshops are adequately provided in the colleges.

Accordingly, provision and maintenance of offices accommodation shows that offices and equipment are adequately provided in colleges with 72 percent of the respondents agreed while 25 percent disagreed that offices accommodation that are equipped with facilities are adequately provided in the colleges of education in North-West Geo- Political Zone, Nigeria. Looking at the percentages' above one can conclude those offices accommodations that are equipped with facilities and equipment are adequately provided in colleges of education in North-West Geo-Political Zone Nigeria. Item four which concerned with the opinion of respondents on regular electricity supply and adequacy of provision and maintenance in the colleges showed that 36 percent agreed that there is regular power supply while 55 percent disagreed. As such, regular electricity supply was not adequately provided and maintained in colleges of education in North-West Geo-Political Zone, Nigeria.

Item five was concerned with the opinions of respondents on the provision and maintenance of regular supply of adequate tap water in the colleges within the Zone, 175 respondents representing 47 percent disagreed while 167 respondents representing 45 percent agreed. This implies that tap water was inadequately provided and maintained in the colleges. Item six which concerned with the opinion of respondents on the provision of stand by generators 31 percent of the respondents agreed that standby generator are adequately provided in the colleges while 61percent of the respondents disagreed. This shows that the provision and maintenance of standby generator is not adequately provided and maintained in the colleges.

Item seven which is on provision of good road network within and outside the colleges 187 respondents representing 50 percent agreed that there is good road network within and outside the colleges while 42 percent disagreed. Result from the discussion shows that good road network is adequately provided in the colleges. Item eight on the opinion of respondent provision and maintenance of apparatus for practical are adequately provided and maintained, 128 respondents representing 64 percent agreed that apparatus for practical are adequately provided and maintained while 28 percent disagreed. Item nine on the opinion of respondents on the provision and maintenance of building classes in the colleges within the Zone shows that 73 percent agreed that classes are adequately provided in the colleges while 22 percent disagreed that classes were not adequately provided in the colleges. Going by the percentages classes were adequately provided and maintained .Item ten which concerned with the opinion of respondents on the adequacy of necessary facilities in the administrative blocks in colleges within the Zone, 70 percent agreed that such facilities were adequately provided while 24 percent disagreed. Going by the percentages shows that necessary facilities were adequately provided.

The findings showed that all other items under provision of infrastructural facilities were adequately provided and maintained with exception of electricity, tap water and standby generators.

Discussion of findings on the opinion of respondents on the provision and maintenance of teaching facilities showed a total agreement on the part of respondents that most of the items were adequately provided and maintained with exception of slides and audio-visual centers, on the provision of slides in the colleges where by 103 respondents representing 28 percent agreed that slides were adequately provided and maintained while 206 respondents representing 56 percent disagreed that slides were adequately provided and maintained in the colleges. Going by the percentages that slide were not adequately provided and maintained in the colleges under study. Item sixteen consider the provision of audio- visual centers where 158 respondents representing 43 percent agreed that audio-visual centers were adequately provided and maintained while 168 respondents representing 45 percent disagreed. This shows that audio-visual centers were not adequately provided in the colleges. Item seventeen assessed the opinion of respondents on the provision and maintenance of language laboratories where 219 respondents representing 58 percent agreed that language laboratories were adequately provided and maintained while 97 respondent representing 26 percent disagreed. This means that language laboratories were adequately provided and maintained.

Thirdly, discussion of findings on the opinion of respondents on provision and maintenance of learning facilities: Item one on the opinion of respondent on relevant of books in the library where 279 respondents representing 70 percent agreed that relevant books in the library were adequately provided and maintained while 65 respondents representing 18percent disagreed, going by the percentages this shows that relevant books were adequately provided and

maintained in the colleges libraries. Likewise the second item which has to do with the opinion of respondents on the provision of white and black boards with 285 respondents representing 77 percent agreed that the boards were well provided and maintained while 18 percent representing 68 respondents disagreed that white and black boards were not well provided and maintained, going by the percentages white and black boards were adequately provided and maintained. Item three which solicited for the respondents' opinion on the provision of chairs and tables in the respective colleges, majority of the respondents agreed that chairs and table were adequate in colleges with 77 percent while 71 respondents representing 19 percent disagreed. This shows that there are adequate learning facilities in colleges of education in North-west Geo-Political Zone, Nigeria. Item four on the opinion of respondents on whether internet facilities are well provided in the colleges with 219 respondents representing 59percent agreed while 127 respondents representing 34percent disagreed with the statement. Item five on the opinion of respondents on the provision and maintenance of E-library in the colleges showed that 226 respondents representing 61 percent agreed that E-library was adequately provided in colleges whiles 110 respondents representing 30 percent disagreed that E-library were not adequately provided in the colleges.

Item six on the state of departmental library in the college's 149 respondents representing 40 percent agreed that departmental libraries were adequately provided while 196 respondents representing 53 percent disagreed. Going by the percentages shows those departmental libraries were not adequately provided because most of the department do not have library. Item seven on the opinion of respondents representing 66 percent agreed that seats were adequately provided in the colleges while 89 respondent representing 24 percent disagreed that seats were adequate in the library. On the provision of still pictures in college 135 respondents representing 36 percent

agreed that still picture were adequately provided in the colleges while 164 respondents representing 45 percent disagreed that still picture were adequate in the colleges going by the percentages still picture were in adequately provided and maintained. Item nine on the opinion of respondents on the provision of fanned boards with 148 respondents representing 40 percent agreed that fanned boards were adequate while 156 respondents representing 42 percent disagreed that fanned boards were adequately provided. Item ten on the opinion of respondents on the provision of bulletin boards were 224 respondents representing 61 percent agreed that bulletin boards were adequately provided while 102 respondents representing 28 percent disagreed.

The discussion of findings on the opinion of respondents on the provision and maintenance of learning facilities revealed that with the exception of departmental libraries, still picture and fanned boards were perceived to be inadequate, but all the other items were adequately provided in the colleges of education in North-West Geo-Political Zone, Nigeria

Fourthly, discussion of the finding on the opinion of respondents on provision and maintenance of welfare facilities for instance, item one to three which were on staff quarters, hostel accommodation and health care service facilities which were adequately provided where 228 respondents representing 62 percent agreed that staff quarters were adequately provided while 103 respondents representing 28 percent disagreed. Likewise, hostel accommodation and health care service facilities were adequately provided with 232 respondents representing 63 percent agreed while 101 respondents representing 28percent disagreed, but for health care facilities 261 respondents representing 71 percent agreed while 79 respondents representing 21 percent disagreed. Going by the percentages the majority opinion conclude that staff quarters, students hostel and health care service facilities are adequately provided and maintained. Subsequently

fire extinguisher were adequately provided and maintained with 239 respondents representing 65 percent agreed while 95 respondents representing 26 percent disagreed that fire extinguisher were adequately provided and maintained, this shows that majority agreed therefore fire extinguisher were adequately provided and maintained. Item five on provision of cafeteria canteens with 211 respondent representing 57 percent agreed that there are adequate provision and maintenance of cafeteria canteens in the colleges while 122 respondents representing 33 percent disagreed. For inter and intra college transportation 184 respondents representing 50 percent agreed while 139 respondents representing 37 percent disagreed. Sequentially, staff toilets within offices are adequately provided and maintained in the colleges with 210 respondents representing 57 percent agreed that staff toilets are adequately provided and maintained within staff offices while 115 respondents representing 34 percent disagreed, going by the percentages there are adequate toilets in their respective offices. Conclusively, items nine, ten, thirteen, fourteen and fifteen on resting room, break period security service, health insurance service, washing detergent, dormitory shops and drugs were perceived to be adequately provided in the colleges for resting room 189 respondents representing 51 percent agreed that resting rooms were adequately provided while143 respondents representing 39 percent disagreed, for break period 216 respondents representing 56 percent agreed that break period were adequately provided and maintained while 106 respondents representing 29 percent disagreed. For the provision of security services 236 respondents representing 64 percent agreed that security was adequately provided and maintained while 99 respondents representing 27 percent disagreed. For health services 213 respondents representing 57 percents agreed while 109 respondents representing 29 percent disagreed. On the provision of washing detergent in colleges 157 respondent representing 42 percent agreed that detergent was adequately provided

and maintained while 151 respondents representing 41 percent disagreed. For dormitory shops 192 respondents representing 52 percent agreed that dormitory shops were adequately provided and maintained while 118 respondents representing 32 percent disagreed, on the provision of drugs in the college clinics 231 respondent representing 62 percent agreed that drugs were adequately provided and maintained in the colleges while87 respondent representing 23 percent disagreed. For the provision of maternity leave in the colleges 280 respondents representing 68percent agreed while 77 respondents representing 21 percent disagreed.

Finally, discussion of the findings on the respondent's opinions on the provision and maintenance of recreation and games facilities in colleges of education in North-West Geo-Political Zone, Nigeria, Item on the provision of standard football field, 246 respondents representing 66 percent agreed that there are adequate standard football field in the respective colleges of education while 96 respondents representing 26 percent disagreed. Standard basket ball field is adequately provided with 238 respondents representing 64 percent agreed while 102respondents representing 28 percent disagreed that there are adequate basket ball field. Item three on standard volley ball field with 228 respondent representing 62 percent agreed that there are adequate volley ball field while 98 respondents representing 26 percent disagreed that there are adequate volley ball field. Going by the percentages shows that most of the colleges have standard fields for football, volley ball and basket ball respectively. Item four which was on standard swimming pool with 103respondent representing 28percent agreed that there are adequate swimming pool while 138 respondents representing 54 percent disagreed that there is no swimming pool in any colleges of education in North- West Geo-Political Zone Nigeria. Item five which said that game coaches showed that 227 respondents representing 61 percent agreed that there is adequate game coaches in colleges of education while 113 respondents

representing 30 percent disputed the opinion that there is adequate game coaches in colleges of education. Item six on the opinion of respondents on provision and maintenance of table tennis equipment 56percent agreed that table tennis equipment were adequately provided and maintained while 31 percent disagreed. On the provision of first aid equipment 222 respondent representing 60 percent agreed that first aid equipment were adequately provided and maintained while 98 respondents representing 26 percent disagreed. For long jump facilities 123 respondents representing 33 percent agreed that long jump facilities were adequately provided and maintained while 181respondents representing 49 percent disagreed that long jump facilities were adequately provided and maintained, for high jump, take off boards, hammer throwing circle, multipurpose field with synthetic floor, athlete dressing rooms technical rooms respectively; all the respondents disagreed that there is adequate provision and maintenance of these recreation and games facilities in the colleges of education in North-West Geo-Political Zone, Nigeria. This discussion showed that colleges of education were the ones responsible for ensuring that all necessary facilities were provided through close supervision as in the case of the above facilities majority of respondents disagreed that adequate recreation and games facilities were provided in the colleges of education in North-West Geo-Political Zone Nigeria

Comparison between Urban and Rural Colleges of Education

As far as this study is concerned urban colleges are the colleges of education that are mostly situated at the state capital and in ancient city and most likely owned by the federal government, while rural colleges of education are the colleges of education that are located out skirt of the state capital and not in the ancient city and mostly owned by the state government.

In terms of provision and maintenance of facilities they derived their source from the same intervention body (TETFUND), the same cash allocation was given to both urban and rural colleges of education, apart from the normal intervention there is special intervention but depend on the leader (provost) initiative and sources of internally generated revenue. But never the less, urban colleges have advantages in term of provision and maintenance of facilities compared to rural colleges of education, in terms of electricity supply urban colleges of education have accesses of linking the college with the dedicated line because the funds to do so compared to the rural colleges of education because the proprietors' are no longer financing the colleges they paid only salaries. No funds coming from the proprietors' for maintenance and provision of facilities with exception of Saadatu Rimi College of Education Kumbotso.

In terms of good road network there were adequate provisions and maintenance in urban colleges of education than in the rural colleges of education. Water supply is adequately provided in the urban than in the rural colleges of education. In terms of welfare facilities are more adequately provided in the urban colleges than in the rural colleges of educations i.e. salaries variation a chief lecturer in the urban college's received two times of what a chief lecturer would received in the rural colleges of education, conclusively accessibility to Internet facilities urban colleges of education have adequate accessibility compared to rural colleges of education

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, summary, conclusions and recommendations are presented. Suggestions and recommendations were drawn according to the research findings. The main objective of the research was to assess the provision and maintenance of facilities in colleges of education in North-West Geo-political Zone, Nigeria.

5.2 Summary

This study covers five chapters, chapter one is the introduction to the study, the background to the study, statement of the problem, objectives, hypotheses, research questions. Scope and limitation of the study were equally stated in chapter one.Chapter two reviewed relevant literature in order to establish a theoretical base for the study, thus, areas reviewed include theoretical framework, physical facilities/fixed asset, provision and maintenance of infrastructural facilities in schools, school building safety, and maintenance of facilities in Colleges of Education. Other aspect reviewed also includes maintenance of plant in Nigeria colleges of education, Concept of teaching, instructional/learning resources, provision and maintenance of laboratory workshops, facilities and so on. The relevance of environmental theory to educational facilities management, relevance of environmental theory and its relationship to physical facilities planning and management, empirical studies relevant to the study were also examined and the chapter was summarized.

Chapter three focused on the research methodology used. Descriptive survey method was chosen for the study. Six out of the twelve colleges of education in North-West Geo-political Zone, Nigeria (as at the time of the study) were sampled. Roscoe (1969) was adopted in selecting the six sampled colleges. The population of the study was 370 respondents from the sampled colleges which was selected and was given accordingly for management staff, teaching staff, senior non-teaching staff union leaders and students' representatives. Relevant tables were

presented, pilot test; the instrument a questionnaire was designed and used for data collection, validity and reliability were also tested and presented.

Chapter four presented, analyzed and discussed data collected from respondents in sampled colleges for the study. The presentation and analysis of data started with the bio data of respondents (management staff, teaching staff, senior non-teaching staff union leaders and students' representatives) which were analyzed in frequencies and percentages then tabulated. Analysis of variance (ANOVA) was used to determine the level of significant difference recorded in the opinions of respondents. The ten null hypotheses formulated in chapter one and tested in chapter four were all retained

In addition the findings and discussion of the data were presented to establish relationship between the variables under study. Frequencies and percentages were used to obtain results. A simple statistical analysis was used in result presentation of the research. The data collected was statistically analyzed by using simple frequency and percentages method. Lastly chapter five comprises the summary, conclusion and recommendation, suggestion for further studies and contribution to knowledge.

5.3 Conclusions

The research was on assessment of provision and maintenance of facilities in colleges of education in North-West Geo-political Zone Nigeria. From the result of this study, it can be concluded that provision of the necessary infrastructural facilities like teaching facilities,

learning facilities, welfare facilities, recreation and game facilities are vital instrument for academic performance and goals achievement. That all the above facilities need to be adequately provided and maintained towards research publications, committee services, quality of NCE teachers, school discipline and students academic performance which are the indicators of academic goals achievement of Colleges of Education in North-West Geo-political Zone and Nigeria in particular.

Finally, this study has come out with these conclusions based on statistical analysis:

1. the analysis of the data collected showed that majority of the respondents agreed that infrastructural facilities were adequately provided, since the majority of the respondents agreed, success in all ramification in teaching and learning is expected.

   there is adequate maintenance of infrastructural facilities
2. teaching facilities were adequately provided with the exception of Audio-Visual Centers and Slides
3. audio-visual centers and Slides were inadequately maintained, but all other items were adequately maintained under maintenance of teaching facilities
4. departmental library and still pictures were inadequately provided, but all other items under provision of learning facilities were adequately provided
5. all other learning facilities are adequately maintained with exception of departmental library and still pictures that, were inadequately maintained
6. welfare facilities are adequately provided
7. welfare facilities are well maintained
8. recreation and Games facilities are inadequately provided and the existing ones are sub standard

9. Recreation and Games facilities were sub standard and inadequately maintained.

5.4 Recommendations

In view of the findings on assessment of provision and maintenance of facilities in colleges of education in North-West Geo-political Zone Nigeria, the following recommendations were made:

1. Provision of infrastructural facilities in colleges of education should be a joint responsibility of everyone like government and non-governmental agencies, lecturers' philanthropists should be adequately involved in the provision of necessary infrastructural facilities.
2. Maintenance culture like preventive, corrective commit ship type, situational approach should be put in place in order to encourage maintenance status of the available infrastructural facilities in colleges of education.
3. Government should provided adequate audio-visual centers' and additional funds for field trip especially in the rural colleges of education to increased the adequacy of teaching facilities
4. The college management should provide adequate departmental library and regular maintenance of library facilities for effective teaching and learning to take place.
5. It is recommended that more welfare facilities such as soft loan, car loan, salary
6. advance and counseling services should be provided to reduce suffering of most staff and students.
7. The concerned authority should act promptly in the provision of recreation and games facilities in colleges of education in North-West Geo-political Zone, Nigeria
8. The college management should provide adequate maintenance of recreation and

games facilities in colleges of education in North-West Geo-political Zone, Nigeria

9. Management should provide independent means of funds generation that would be used in providing facilities out repairs and maintenance of College facilities that are not managed.

Conclusively, a suggestion is hereby given to all college stakeholders to create a favorable environment to encourage teaching and learning.

The study revealed and established some principle factors that are significantly affecting performance in the provision and maintenance of facilities in colleges of education in North-West Geo-political Zone, among which are funding, corruption, organizational structure, political factors, ownership types, and security. The study concluded that it is only when adequate fund is provided and fully utilized in the provision and maintenance of facilities that the stakeholders will enjoy the initial investment in the colleges and the consequent accruing benefits of the colleges will be achieved

5.5 Suggestions for Further Studies

For further research, the following areas are suggested by the researcher:

1. Assessment of provision and maintenance of teaching and learning facilities in Polytechnics in North-West Geo-Political Zone
2. Assessment of provision and maintained of infrastructural facilities in federal Universities in Northern Nigeria
3. Assessment of provision and maintenance of Welfare facilities and recreational facilities in colleges of education in North-Central Geo-political Zone

5.6 Contribution to Knowledge

The outcome of the study 'Assessment of provision and maintenance of facilities in colleges of education in North-West Geo-political Zone, Nigeria, had generated vital information on how the North-West Geo-political Zone populace view the issue of provision and maintenance of facilities toward attainment of goals and objectives of the colleges. The following are:

1. the study was in line with the objectives and significance of the study, been able to bring into a number of alternative modern strategies of college plant maintenance. The strategies are meant to ensure that all the school plants are put in functional state throughout the year. These strategies include: psychological build up of the school market (staff and students, periodic inspection and classification of damaged infrastructures; community system participation approach, and financial maintenance cost internally.
2. The study had afforded major stakeholders within the colleges in the North-West Zone (respondents to bear their minds on the vital issue that revolve around educational facilities and their provision and maintenance.
3. Suggestions were made for more proactive approach that would facilitate effective and optimum popular participation toward overall development of teacher education in North-West Geo-political Zone and Nigeria in particular

REFERENCES

Abdulkareem, A. Y(2003). *An Analysis of School Plant Maintenance Practice in Kwara State Secondary School* Journal of Education 1(5)

Abimbade, A. (2000). *Principle and Practice of Educational Technology:* Ibadan International Publisher limited.

Adeboyeje R.A (2000). *Management of School Physical Facilities in Ondo and Ikale Local Government Areas of Ondo State: Nigeria,* Unpublished PhD Thesis University of Ife

Adeboyeje R.A (1999). A Practical Approach to effective Utilization and Maintenance of Physical Facilities in Secondary Schools: in J.O Fadipe and E.f Oluchukwu (eds). *Educational planning and Administration in Nigeria in the 21st Century* .pp 88-103

Aderoumu & Ehiametalor, E.T (1985). *Introduction to Administration of Schools in Nigeria:* Evans Brothers Nigeria Publishers, Ibadan

Adesina,S.(1981). *Some Aspect of School Management: Ibadan & Lagos :* Education Industries Limited

Adesina,S. (1999). *Introduction to Educational Planning:* Ile-Ife; University of Ife Press Ltd

Adesina,S. & Fagbamiye, E.O.(2000). *Educational Administration:* Ibadan, University press Ltd

Adeyemi, J.K, & Igbineweka V.O. (2000). Sitting Space Utilization in Nigeria Universities: A Case Study of University of Binin" *Journal of Teacher Education* 4 (1)

AfricanDevelopment. Beyond and passed towards Alternatives: Maputo Available at http://www. Codestria.org//links/Conferences/ general assembly 11/ papers/bako/pd/ accessed January 2000

Aghenta,J. A (1993). *Principles and Practice of Educational Planning focus on Developing Countries*: Binin city NSEP Publications.

Agun, J.I.(2000). Incorporating Communication Technology into Teacher Education programme: Paper presented at Annual Convention of the National Association for Educational Media and Technology, *Africa Journal of Information Technology* (AJT) N0 1599.

Agun, I &Imogie, I.(1982). *Fundamentals of Educational Technology*: Ibadan Oluseyi press Ltd.

Aguokogbuo, C.N (2005). Prescribing Non-Projected Curriculum Materials for Primary School: in *Journal of Curriculum and Media Technology research* (JOCUMETER)VOL.1.N0 1 Number: Enugu: pearls and Gold; 8 3-95

Ahmed, M.O. (2010). Funding and Infrastructural Facilities of Secondary Schools in Oyo State, Nigeria *Journal of Educational Foundation and Management*

Ajaye, K. (1995). *Reflections on the Nigeria Education system; a College Provost Perspective.* Osiele consult publication, Series

Ajayi, J. A (2007). *Issues in school management,* Lagos: Bolabay Publisher

Akindele, I.(2010). Issues in Sand which Approach for Training and Improving Teachers in Nigeria: in Journal of Education Research and Development *A Journal of the Faculty of Education,* Ahmadu Bello University Zaria 5 (2) p/6-23.

Akindutire,I.O. (2004). *Administration of Higher Education:* Lagos Sunray press, Nigeria.

Akinsolu, R. A. (2004). Provision and Management of Facilities in Nigerian Primary Schools: In E,O. Fagbemiye, J.B. Babalola, M. Fabunmi and Ayeni (Eds) *Management of Primary and Secondary Education in Nigeria.* Ibadan NAEAP Publications.

Akuezuilo, E.O. & Agu, N (1993). *Research and statistics in Education and Social Sciences:* Awka: Nuel Centi Publishers and Academic Press Ltd

Alamu, G. (2010). A Welcome Address by the National Chairman Association of Nigerian Languages Teacher: (ANLAT) at College of Education Kontagora; 10^{th} –14^{th} May 2010

Alcorn,M.D. (1999) .*Better Teaching in Secondary Schools,* 3^{rd} Ed. New York, Holt Reinehart

Alhassan, J. (2008). "*Provision of Recreational open space for Ilorin*: Unpublished M SC Thesis Department of Uban and regional Planning, A.B.U Zaria

Ali, A. (2008). "Improving Educational Standards in Nigeria: perspectives challenges and Strategies" Being a Keynote paper presented at the 2008 National Conference Organized by the Department of Art and Social Science Education, Faculty of Education, University of Jos.26^{th} ---30^{th} October

Aliyu M.S (2012). *Analysis of Management of Funds Allocated to Federal University in Nigeria:* (2005—2009) Unpublished PhD Thesis of Ahmadu Bello Universities

Alo, E. (1995). University Based Applied Research and Innovation in Nigeria: in Osita,M. Ogbu, Banji, O. Oyeyinka, and Hassan Mlawa (ed) Technology policy and practice in Africa: (online) the International Development Research Centre Available at http//www.Idrc.ca./en/eu/Doropic Ltm (accessed on 8^{th} January 2008.

Altan, L. I.(2006). Information Technology and Challenges to Teachers: *Benue State University, Journal for Education* VOL.7 May,2006

Aminu, J.(1987). Resources for Higher Education: Number, Cost and Common Sense, Guest of Honoree Address in Resources management in the University system Zaria proceedings of NUC/CVC/BC International Seminar: Number

Anderson, R.(2000). The School as an organ: Teaching Aid in M.R. McChire (ed). *National Society for the Study of Education Year Book*, part 1 Chicago: University of Chicago press

Anderson, W.(1999). (ed) *The age of protest"* California Good year Publishing Company.

Anigbo,J. (2008). The success of the Universal Basic Education (UBE) in Nigeria: http//adonn instablog.com.Retrieved 23/01/2009.

Arzika, M.(2000). *National Telecommunication policy*: Internet website, http://www.acc.gov.ng telecommunication policy.htm

Aska, N. (2001). *Research Methodology in the Behavioral Science:* Lagos Printed by Emma's Products Limited Egbada Bako,S.(2005) University Research and Development in Nigeria: Time for a paradigmatic shift (online) paper prepared for 11 General Assembly of CODESR in on, Rethinking

Ayanniyi, R. B. (2006). Management of Primary School Facilities and Cultivation of Maintenance Culture. *Journal of Educational Management and Planning* Volume12, Number One.

Ayeni, A. O.& Atanda, A.I. (2004).Maintaining School Facilities for Achievement of Universal Basic Education (UBE) Objectives in Management of Primary and Secondary Education in Nigeria.

Bako,S.(2005). *University Research and Development in Nigeria: Time for a paradigmatic* shift(online) paper prepared for 11 General Assembly of CODESR in on, Rethinking

Bello,M.O. (2011). *Public- private partnership, Infrastructural development and academic goals achievement of Nigerian Universities.* A seminar paper presented at university of Ilorin 25/6/2011

Bello,Y.J.Y. (1999). *Basic Principles of Teaching Education in Africa:* A. Wiley Series. Spectrum Books PMBS612 Ibadan

Best J N & Kahn J V (1995). *Research in Education:* (Seventh Edition) New Delhi

Blair, G.M. Jones R.S. & Simpson, R.H.(1975). *Educational Psychology* 4th Ed. New York Macmillan Publishing Co.

Blount, N. S, & Klausmeirer, H.J (1999). *Teaching in Secondary school:* 3rd Ed New York Harper and Row publishers

Borg W.R. & Gall, S M G (1989) .*Educational Research:* An Introduction fifth edition New York+

Bower,J.H & Burkelt, .W. (1999). *Effects of Maintenance of School Physical Facilities and Environment on Students, Learning Education*: Faculty planners, 27 (1); 28—2

Brown, (1999). *Instructional Materials and Methods:* New York McGraw. Hill Book Campany

Burton, T.L.(1971). *Experiments in Recreation Research* Geoge Allen and Cinwini London.

Cambridge Advance learners Dictionary (New) 2003 Cambridge: University Press

Castaldi B (1994), *Educational facilities Planning Management and Modernization* Needham Heights, MA Ally Bacon.

Center for Facilities Management, (2010). The FM Sector and its status in the word countries Report 21. 2010.A research publication of centre for facilities management Readamia research pubisher retrieve from www.cfm, dtu.dk/up load centre/man.cfm10100% Nordic pdf.

Clawson,M & Knetch,J.L.(1966) . *Economic of outdoor Recreation* Johns: Hopkins University Press Baltumore

Chika, J. A.I & Egenti: M N (2010). Quality Teacher Quality Education: A Key to Achieve Educational Goal in *Journal of Education Management and Planning* (JEMP)1 (1) 1-9 Ahmadu Bello University Zaria

Daily Trust (2009). *Nigeria; Salvaging Nigerian University* March, 19 Retrieved on March22/04/20

Durosaro, D. O. (1981) "Towards reducing educational cost through plan plant Maintenance in Nigerian School: Ilorin *Journal of Education,* Vol.9.page68-7

Durosaro D.O. (2000). *School Plant Planning Administrative Effectiveness in some selected Secondary Schools* in Oyo Township: M.Ed Thesis University of Ibadan

Edem, D.A. (2007). I*ntroduction to Educational Administration in Nigeria,* Ibadan: Spectrum Books Ltd

Enaohwo,J.O. & O.A. Eferakaya (1999). *Educational Administration:* Ibadan, paper Back Publishers,

Encarta, Encyclopedia (2007). Information (Internet) Microsoft. Available at htt://encary ;msm/(accessed 6th January 2008

Ezuocha,P.A (1985). *School Management and Supervision,* Owerri; New African Publishing Company

Fabunmi, M. (2004). *Perspective in Educational Planning:* Ibadan, Awemark Industrial

Printers

Facilities centre.com, (2010). Facilities centre.com (2010) Facilities management terms and definition, (online) Available:www.facilities centre.com contract term conditions/ index.php. (january 25th ,2011)

Fadipe, O.(2001). *Modern strategies of School Plant :*A publication of the National Institute of Educational Planning and Administration: Ibadan: NPS Education publisher Ltd

Federal Republic of Nigeria (1991). *Higher Education in the Nineties and beyond:* (Longe Commission Reports), Lagos Federal Government Press

Federal Government of Nigeria (2004).*National policy in Education* Lagos: NERDC

Fowle, F (1988). Survey Research methods burg park clalif, saje publisher Gana, A.T. (1995) N*igerian Higher Education system in the Balance University System* Bews5/

Gay, J.R. (1992). *Educational Research Competences for Analysis and Applications:* Merill publishing Company

Gidado, B. K, (2000). *Environmental Factors Relating to Students Academic Performance in Bauchi State Secondary Schools:* unpublished M.Ed. Thesis A B U Zaria

Gupta,C.B.(1979). *An introduction to statistical method:* sahibabat Dist, gha Ghazi, abad,MP,India. Vikes publishing house pvild.

Gwani, J. A.(2010). "Re-engineering Education for sustainable National Development in Nigeria: Being a lead paper presented at the 6th Annual National Conference of the School of Education, Federal College of Education Kontagora,4th May

Hassan, M. Chindo, M.(2008). The Role of Information and Communication Technology in Educational Development in Northern Nigeria. A Paper Presented at National Conference of Faculty of Education and Arts IBB University Lapai on 25-28 February, 2008.

Ibrahim, A. (2008). Information and Communication Technology for Encashment of Educational Development in Northern Nigeria: International Institute for Communication and Development UCD (2007)

Ibrahim, Y. (2010). *Impact of School plant provision on the Management of Teaching and Learning in Secondary Schools in Taraba State,* Ahmadu Bello University Zaria Unpublished M.Ed Thesis.

Ijeoma, M.E. (1997)."Maintaining Excellence in Higher Education under Conditions Economic: Crises" *Journal of the National Institute for Educational Planning and Administration* (NIEPA) Publication Volume 1 (2)

Innih, G. (1978). Address to Proprietors of Secondary Schools in Kwara State Government Policy on Private Schools, Nigerian Herald March, 15th .

International Facilities Management Association. (2009). Strategic Facility Planning, A white paper on strategic facility planning. (online) Availab www..org/tools/file/SFPWhite paper pdf (January,25th ,2011)

Jedo,S.O. (2007). , *Management in Education,:* printed and published by Codat Publications, Ibadan

Jega, M. (2009). 'Nigeria; Salvaging Nigeria Universities: Daily Trust htt:// all Africa. Com/Stories

Jones, G. (1990). *Human Behavior Improving Performance at Work*. Preston Publishing Co.Inc,Reston, Virginia

Kerlinger, F.N. (1986). *Foundations of Behavioral Research,* New York: Holt Rinehart andWinston Inc

Keith, E. (20009). Performance based facility management.(online) Available: www.ijfmnet/ index.phd/ijfm/article/view PDFinterstitral 11/14 (January,25th 2011

Knezevick, J.S. (1969) .*Administration of Public Education:* 2nd ed New York McGraw.Hill.

Lucy, T. (1998). *Management Information system:* London, DPT Publication Ltd

Madu, E, L.& Adeniran Tin (2000). *Information Technology; Uses and Preservation* Centers Oyo Odumeta press and publshers,

Maina, B. (2009). *School Plant Administration:* Unpublished Manuscript Ahmadu Bello University

Manya S.B. (1999, July 15th). *Falling Standard of Education:* The Kaduna State Example, New Nigeria

Mohammad L. I, (2011). *Perceptions of Stakeholders on the Impact of Policy Implementation achievement of stated objectives of Secondary Education in Nigeria*, Unpublished Ph.D thesis of A B U Zaria, Nigeria

Muhammad, W.H. (2006) .The School Administration Role in the management and maintenance of school facilities: in *Journal of Educational management and planning* (JEMP) Ahmadu Bello University Zaria

Musa M. I. (2014). *Evaluation of Availability and Maintenance of Facilities in Tertiary Institutions in Kaduna State,* Nigeria Unpublished M.Ed Dissertation A B U, Zaria, Nigeria

Murfwang, M. M. (2006). *Minimum standard for planning of Basic Education* Infrastructure Department of Planning and Information management Universal Basic Education Commission

National Commission for Colleges of Education (NCCE) *News letter Vol N0 1 Kaduna* December, 1992

National Commission for Colleges of Education (2009). Minimum standard, Abuja, NCCE *Journal of Education and Psychological Measurement,*

National Educational Research and Development Council Federal Government of Nigeria (2004).National policy in Education Lagos:

National Universities Commission (NUC) Universities Funding from1990-2008 file in Aliyu 2012, Unpublished PhD Thesis of Ahmadu Bello University Zaria

National University Commission (NUC) Total Student Enrolment by University,2009

Nigeria Digest of Education statistics, 2006-2010, Federal Ministry of Education Abuja, Nigeria

Nnamdi, J. S. (2001). *Principles and Practice of Education in Nigeria*: Longman

Nwadiani, M. (1999). Dystrophies in Higher Education Nigeria Experience: *Higher Education Review 31 (3) 17-26*

Nwanko, J.J.(1999). Educational Administration and Supervision ACE series Nigeria:. Heinemann Educational Books Ltd

Nwokolo, O.C (2005). Instructional Materials Utilization in the Teaching- Learning of Biology in the Secondary School: in *Journal of Curriculum and Media Technology Research* (JCUMETER) VOL,1 N1. Number, Enugu; pearls and Gold:18-24

Nwurgu, B.G. (2004). *Educational Research Basic Issues methodology:* Ibadan Nigeria: Wisdom Publishers Ltd, State Hospital Road, Ring Road.

Nwagwu, N. A. (1999) .*Primary School Administration,* Lagos, Macmillan Nigeria Publishers

Obanya, P. (2014). General Method of Teaching: Macmillan Nigeria publshers Ltd P O Box 264 Yaba Lagos

Obanya, P. (2000). Administration and Leadership in Education: in Ndu, Andocho, L.O and Okeke B.S (eds) *Dynamic of Educational Administration and management:* The Nigeria perspective Onisha Meks Publishers Lt

Ochuba, V.O. (2005). Strategies for Improving the quality of Education in Nigerian Universities: In Nwagwu, N.A.Ehiametalor E,T.Ogunu, M.A and Nwadian, M.ON(eds). Current Issues in Education Management in Nigeria. A publication of Nigeria Association for Educational Administration and planners (NAEAP)

Odebiyi, A I. Aina O,I & Ishola S A (1996). Varsities' World Bank credit facilities; How sustainable is the Programme: *NUC Project News* Vol 3 N0 1. P 10 Retrieved on 8 May 2010

Odediran,N.O. (2010). An Address presented by the Provost, Federal College of Education, Kontagora, during the Maiden visit to the college Tuesday, 16th February, 2010

Ogbonnaya, N.O. (2005*). Foundation of Educational finance*: (second edition), Nsukka, Hallman Publishers

Ogu, E. (2008) .*Challenges facing Nigeria Universities*: http.//.nigerword.com articles Retrieved On 04/03/2009

Ogundele, M. O.(2001) .Utilization of Internally generated funds for school plants development of secondary schools in Offa L .G .A. unpublished M.Ed Dissertation University of Ilorin, Nigeria

Ogundele, M.O.(2006). Efficacy of system approach for school plant provision and Maintenance. *Ilorin Researchers* 5(4) 42

Ogundele, M.O. (2012). Recreational facilities and students' academic performance of secondary schools in kwara state, Nigeria. *Journal of vocational education and technology education*. 9 (1)49

Ogunsaju, S.(2006). *School Management and Supervision:* Nigeria. Ilorin Crystal Press

Ojibara, N.B.(2010). *Stakeholders' perception on the provision and management of welfare and academic services in Colleges of Education in Nigeria:* An UnpublishedSeminar presented for the award of P.hD in Educational Administration and Planning. Ahmadu Bello University Zaria,16/06/2010

Ojedele, P.K. (2000). Maintaining School Plant for Educational effectiveness and efficiency in a depressed economy: in Olagboye A.A. and Fadipe J.O (eds) *Management of Nigeria Education: Project Monitoring and School plant maintenance*, Ondo NIEPA pp83—89

Ojo, A. (1978) .Recreation and Tourism patterns and Trends in: Oguntoyinbo, J. et Geography Nigeria n Development, Heineman Ltd. Ibadan.

Okebukola P(2000) .*The status of University Education in Nigeria:* A report presented to the National sumit of Higher Education Abuja March

Okeke N. A. (2000). *Administering Education in Nigeria, problems and prospects:* Ibadan Heineman Education Books Nigeria Ltd

Okpakwu S.O. (2004). Proposal for Training and orientation of personnel in Educational Planning and management in Benue state University: in *Journal of Educational Foundation* Marked

Okojie,E.S.(2009). Gender sensitive Analysis of the 2007 Budgets for Nigeria, Ghana, Nigeria and Mali: Abuja Commissioned by the Centre for Democracy and Development (CDD)

Oladipo, S.A.(2001). Maintenance of School Plant: A vital strategy of achieving efficiency in Universal Basic Education: scheme African *Journal of Educational Management*

lagbo, A. D (1999). Educational Facilities and students performance in West African School Certificate Examination: *International Journal of Educational Management*, Vol.1 N0 1

Olagboye, A.A.(2004). "Indicators of Educational system performance: in A.A. Olagboye and J.O. Fdipe (eds), *Management of Nigeria Education Project Monitoring and School Plant maintenance*, Ibadan Daily Grphics

Olagboye, A. A.(2000). *Introduction to Education Management in Nigeria*: Ibadan, Daily Graphics Nigerian) Ltd

Olagbo, A.D. (1987) Educational Facilities and Students performances in West Africa School Certificate Examination. *International Journal of Educational Management*, (1) (1)

Ogedele, J. I. (1998) *Fundamentals of Management Information System.* Spectrum Book Limited

Olaitan, S.O & Agusiobo, O.N (1991). *Principle of teaching practice:* University of Nigeria Nsukka, Tolin Wilong and sons Ltd

Olaloko,S. (1991). *School Plant Maintenance practice:* A case study of University of Ilorin, Unpublished Ph.D dissertation to University of Ilorin

Olanike, S.N. Kehinde, O.J and Debo, A.(2010). Effect of Staff in Tertiary Institutions: in

the *Journal of National Association for Science, Humanities and Education Research*, NASHER Journal Vol.8 N0 1, June 2010

Oluchukwo, E.E. (2005). The Impact of teacher s and students participation towards school in Jos North Local government Area of Plateau State SEPA Vol.1 N01 pp105—114

Olutola, A.D (1989). Educational Facilities and Students performance in West African School Certificate: *International Journal of Monitoring Manual,* July (2003

Onanogbo, O. (1990). *Information and Technology for Communication:* Enugu:ABC Books and Equipment Ltd

Onyekakeyah (2005). *University Education and challenges:* The Guardian, Newspaper Google Retrieved on 26th September, 2005

Ovwigho, M.Y. (1999). *The Theory and practice of Educational Planning in Nigeria:* Kaduna Think publishing Company limit

Owoeye, J.S.(2000). *The Effect of Interaction of location facilities and class size on Academic Achievement of secondary student*: in Ekiti state Nigeria. Unpublished PhD Theses University of Ibadan, Ibadan

Owuamanam, D.O. (2005). *Threat to Academic Integrity in Nigerian Universities.* Lead Paper Presented at Conference of the National Association of Educational Researchers and Evaluations, University of Ado-Ekiti, June 13-17.

Oxford Advanced Learners Dictionary (6th Edition, 2000)a, N. B .(2000) The Roles of School Plant in Educational Productivity: in E.O. Fagbamiye and D.O Durosaro (eds) *Physical Facilities and productivity in Education*, Ilorin, Haytee Accurately, Jos: LECAPS Publishers

Oyedeji, N. B.(2012). The Roles of School Plant in Educational Productivity: in E.O. Fagbamiye and D.O Durosaro (eds) *Physical Facilities and productivity in Education,* Ilorin, Haytee Accurately, Jos: LECAPS Publishers

Oyedele, J.I (1998). *Fundamental of management Information system:* Spectrum Book Limited

Ozigi, A. O (1999). *A Hand book on School Administration and Management:* London MacMillan Ltd

Park, K.(2000). *Textbooks' of Preventive and Social Medicine* 16th ed.MB Banarsi Bhanot Publishers, India

Peretomode, A. (2000). *Introduction to Educational Administration Planning and supervision:* Toja Educational Research and Publishers

Rapport, A. (1995). *Introduction to Information Science, compiled and* (ed) by Tafko Saracevic New bYork RR Bowkar

Ratcliffer, J. (2000). *An Introduction to town and country planning:* Hutchison London

Roscoe, (1969). *Fundamental Research Statistics for behavioral science:* 2nd Edition, NewYork HOE Rinehart and Winston

Sadiq, H.A (2010), Re-Engineering the Education Industry to address contemporary Issues and Sustainable national development: Being a lead paper presented at the opening ceremony of the 6th Annual national conference organized by school of Education Federal College of Education Kontagora 4th May 2010.

Sangowosi, F.O (2003). *Problems of accessing scholarly publication by Nigeria Scientist*: stud pofthe University of Ibadan 00329.pl127.dol:10.117710165551503290020 5 Availabl at htt://its.sagepub.com./egi

Sani,D.M.(2007). *Relationship among School plant construction, utilization, Maintenance and School effectiveness in Kebbi State Secondary School, Nigeria* Unpublished Ph.D Dissertation, University of Ilorin, Nigeria`

Schiffers, M. (1980). *Essential of health living:* New York. John Wiley and sons Ltd

Seely, I. H.(1999) .*Outdoor Recreation and the Urban Environment:* The MacMillan Press Ltd London

Sheingold H.W. (1992). *Step by Step to Better School Facilities:* New York. Harper and show Publishers

Sanusi, L. S.(2011). An Interview with Press in Lagos Wednesday,26th July,2011

Umar, M.D. (1998). *The effect of school physical facilities and location on academic Achievement of primary students: A Qualitative study of Nigerian L.G.A* of Bauch state unpublished M,Ed Thesis University of Jos

United Nation Education Sciencetipic and Cultural organization (1994) Educational Development in Africa: Africa Students

Vickerriliy, S.M. (1999). Architecture and Human Behavior Towards increased Understanding of functional relationship. *Educational Technology*: VOL.12.N0 8.

Wosilat M. A. (1984). *Planning for Recreational Facilities on Nigeria University Campuses proposal for A B U Main Campus: unpublished* M SC Thesis Department of Urban and Regional Planning Faculty of Environmental Design, Ahmadu Bello University Zaria

Yusufu, M, A.(2008), *School Plant Planning and Secondary School Students' Learning Outcome* in South West Nigeria. ,PhD dissertation University of Ado Ekiti

APPENDIXB

QUESTIONNAIRE ON ASSESSMENT OF PROVISION AND MAINTENANCE OF SCHOOL PLANT IN COLLEGES OF EDUCATION IN NORTH--WEST GEOPOLITICAL ZONE, NIGERIA (2010------2014)

Department of Education Foundation and Curriculum,

Faculty of Education,

Ahmadu Bello University, Zaria

Dear Respondent,

REQUEST LETTER

I wish to request for your assistance in collecting necessary data on a research topic: **Assessment of Provision and Maintenance of School Plant in Colleges of Education in North- West Geopolitical Zone of Nigeria.** Therefore, your contribution in bringing out your honest opinion as one of the management staff, academic staff, union leader and students representative will surely enable the researcher arrive at a reasonable conclusion of the work.

Thus, all responses would be treated with most confidentiality required. In the end your cooperation is assumed to improve the provision and maintenance of school plant in colleges of education in North West Geopolitical Zone of Nigeria.

Thank you for your anticipated cooperation

Thanks yours

Adamu Mohammad

PhD Educ/468/2011--2012

Section A:

General Information: please tick in the appropriate box (√) that suit your opinion

1. State: (a) Kaduna state ( ) (b) Kano State ( ) (c) Zamfara State ( )
2. Institutions: (a) FCE (Technical Gusau) ( ) , (b) FCE Kano ( ) (c) FCE Zaria ( ) (d) COE Gidanwaya(e)COE Kumbotso ( ) (f) COE Maru ( )

3. Status: (a) Management staff ( ) , (b) Academic staff ( ), (c), Union leader ( ), (d) Student Representative ( )
4. Gender: (a) Male ( ), (b) Female ( )
5. Qualification: (a) NCE/Diploma ( ), (b) Degree ( ), (c) Master ( ) (d) PhD ( ) (e) Other ( )
6. Years of working experience: (a) 1-5 years ( ) (b) 6-10 years ( ) (c) 15-20 years ( ), 20years and above ( )

Section B: **Provision of Infrastructural Facilities**

Infrastructural Facilities were provided in 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

Key to the questionnaire

SA = Strongly Agree A= Agree UND= Undecided D= Disagree SD= Strongly Disagree

		SA	A	UND	DA	SDA
1	Lecture hall/classrooms are adequately provided in the college					
2	Laboratories and Workshops are adequately provided in the college					
3	Offices accommodation are equipped with facilities and equipment and adequately provided in the college					
4	Regular electricity supply are adequately provided in the college					
5	Provision of regular tap water supply is adequately provided in the college					
6	Provision of stand by generator for the college community is adequately provided in the college in the college					
7	Provision of good road network within and outside the college is adequately provided in the college					
8	Apparatus for practical's are adequately provided in the college					
9	Building of classes are adequately provided in the college					
10	Administrative block is well equipped with all the necessary					

Section C: Maintenance of Infrastructural Facilities

Infrastructural facilities were maintained in 2010/2011, 2011/2012, 2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA				A				UND				DA				SD			
11	Lecture hall/classrooms are adequately maintained in the college																				
12	Laboratories and Workshops are adequately maintained in the college																				
13	Offices accommodation are equipped with facilities and equipment and adequately maintained in the college																				
14	Regular electricity supply are adequately maintained in the college																				
15	Regular supply of tap water is adequately maintained in the college																				
16	Stand by generator for the college community is adequately maintained in the college																				
17	Provision of good road network within and outside the college is adequately maintained in the college																				
18	Apparatus for practical's are adequately maintained in the college																				
19	Building of classes are adequately and maintained in the college																				
20	Administrative block is well equipped with all the necessary facilities and maintained in the college																				

Section D: Provision of teaching facilities

Teaching Facilities were provided 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA				A				UND				DA				SD			
21.	Laboratory equipments are adequately provided in the																				

	college																			
22.	Projectors are adequately provided in the college																			
23.	Camera pictures are well provided in the college																			
24.	Television set (s) are adequately provided in the college																			
25.	Posters are well provided in the college																			
26.	Sliders are adequately provided in the college																			
27.	Radio set (s) are well provided in the college																			
28.	Buses for excursion are well provided in the college																			
29.	Public address system are adequately provided in the college																			
30.	Computers are adequately provided in the college																			

30	Computers are adequately provided in the college																			
31.	Community resources are well provided in the college																			
32.	Tape recorders are adequately provided in the college																			
33.	Globes/ world maps are well provided in the college																			
34.	Diagrams room are adequately provided in the college																			
35.	Stationeries' are well provided in the college																			
36.	Audio Visual Center is adequately provided in the																			

	college																				
37.	Language laboratory is well provided in the college																				

Section E: Maintenance of Teaching Facilities

Teaching Facilities were Maintained in 2010/2011, 2011/2012,2012/2013 and 2013/2014 Academic Sessions

S/N	**Items**	**SA**				**A**				**UND**				**DA**				**SD**			
38.	Laboratory equipment are adequately maintained in the college																				
39.	Projectors are adequately maintained in the college																				
40.	Camera pictures are well maintained in the college																				
41.	Television set (s) are adequately provided in the college																				
42.	Posters are well maintained in the college																				
43.	Sliders are adequately maintained in the college																				
	Radio set (s) are well maintained in the college																				
45.	Buses for excursion are well maintained in the college																				
46.	Public address system are adequately maintained in the college																				
47.	Computers are adequately maintained in the college																				
48.	Community resources are well maintained in the college																				
49.	Tape recorders are adequately maintained in the																				

	college																			
50.	Globes/ world maps are well maintained in the college																			
51.	Diagrams room are adequately maintained in the college																			
52.	Stationeries' are well maintained in the college																			
53.	Audio Visual Center is adequately maintained in the college																			
54.	Language laboratory is well maintained in the college																			

Section F: Provision of learning facilities
Learning Facilities were provided in 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

S/N	Items	**SA**				**A**				**UND**				**DA**				**SDA**			
41	Relevant books in the library are adequately provided in the college																				
42	White and black boards are well provided in the college																				
43	Chairs and tables are adequately provided in the college																				
44	Internet facilities are well provided in the college																				
45	E- book library is adequately provided in the college																				
46	Departmental libraries are well provided in the college																				
47	Seats in library are adequately provided in the college																				

48	E- journals are well provided in the college																				
49	Still pictures are adequately provided in the college																				
50	Fanned boards are adequately provided in the college																				
51	Bulletin boards are well provided in the college																				

Section G: Maintenance of learning facilities

Learning facilities were maintained in 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA				A				UND				DA				SDA			
52	Relevant books in the library are adequately maintained in the college																				
53	White and black boards are well maintained in the college																				
54	Chairs and tables are adequately maintained in the college																				
55	Internet facilities are well maintained in the college																				
56	E- book library is adequately maintainedin the college																				
57	Departmental libraries are well maintained in the college																				
58	Seats in library are adequately maintained in the college																				
59	E- journals are well maintained in the college																				
60	Still pictures are adequately maintained in the college																				
61	Fanned boards are adequately maintained in the college																				
62	Bulletin boards are well maintained in the college																				

Section H: provision of welfare facilities

Welfare Facilities were provided in 2010/2011, 2011/2012, 2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA				A				UND				DA				SDA		
63	Staff Quarters are adequately provided in the college																			
64	Hostel accommodation are adequately provided in the college																			
65	Health care facilities service are adequately provided in the college																			
66	Fire extinguishers are adequately provided in the college																			
67	Cafeterias Canteen are adequately provided in the college																			
68	Inter and intra college transportation are well maintained in the college																			
69	Staff toilet within offices are adequately provided in the college																			
70	Students toilet at hostel and around classes are provided in the college																			
71	Resting room with enough seat for staff are adequately provided in the college																			
72	Break period for staff and students are provided in the college																			

73	Security service at all places within school premises are provided in the college																			
74	Health insurance services are adequately providedin the college																			
75	Washing deter gent are provided in the college																			
76	Dormitories' shops are adequately provided in the college																			
77	Drugs in the clinic are adequately provided in the college																			
78	Annual leave is adequately provided in the college																			
79	Maternity leave is adequately provided in the college																			

Section I: Maintenance of welfare facilities
Welfare facilities were maintained in 2010/2011, 2011/2012, 2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA	A	UND	DA	SDA

80	Staff Quarters are adequately maintained in the college																							
81	Hostel accommodation are adequately maintained in the college																							
82	Health care facilities service are adequately maintained in the college																							
83	Fire extinguishers are adequately maintained in the college																							
84	Cafeterias Canteen are well maintained																							
85	Inter and intra college transportation are well maintained in the college																							
86	Staff toilet within offices are adequately maintained in the college																							
87	Students toilet at hostel and around classes are well maintained in the college																							
88	Resting room with enough seat for staff are adequately maintained in the college																							
89	Break period for staff and students are well maintained in the college																							
90	Security service at all places within school premises are adequately maintained in the college																							
91	Health insurance services are adequately maintained in the college																							

92	Washing deter gent are well maintained in the college																				
93	Dormitories' shops are adequately maintained in the college																				
94	Drugs in the clinic are adequately maintained in the college																				
95	Annual leave is well maintained in the college																				
96	Maternity leave is adequately maintained in the college																				

Section J: Provision of recreation and games facilities
Recreation and games Facilities were provided in 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

	Items	**SA**	**A**	**UND**	**DA**	**SDA**

97	Standard football field is well provided in the college																				
98	Standard basketball field is adequately provided in the college																				
99	Standard volley ball field is well provided in the college																				
100	Standard swimming pool is adequately provided in the college																				
101	Games coaches are provided in the college																				
102	Tables tennis equipment are adequately provided in the college																				
103	First aid equipment are well provided in the college																				
104	Long jump facilities are adequately provided in the college																				
105	Discus facilities are well provided in the college																				
106	Multi—purpose field with synthetic floor are adequately provided in the college																				
107	Athlete dressing rooms are well provided in the college																				

108	Referee dressing room is well provided in the college																				
109	Technical room is adequately provided in the college																				
110	Store room is well provided in the college																				
111	Ticker office is adequately provided in the college																				
112	Ware house is adequately provided in the college																				
113	Wire—net fencing is provided in the college																				
114	Bathroom is well provided in the college																				
8115	Press room is adequately provided in the college																				

Section K: Maintenance of recreation and games facilities

Recreation and games facilities were maintained in 2010/2011,2011/2012,2012/2013 and 2013/2014 Academic Sessions

S/N	Items	SA				A				UND				DA				SDA			
116	Standard football field is adequately maintained in the college																				
117	Standard basketball field is adequately maintained in the college																				
118	Standard volley ball field is well maintained in the college																				
119	Standard swimming pool is adequately maintained in the college																				
120	Games coaches are adequately maintained in the college																				
121	Tables tennis equipment are adequately maintained in the college																				
122	First aid equipment are well maintained in the college																				
123	Long jump facilities are adequately maintained in the college																				
124	Discus facilities are well maintained in the college																				
125	Multi—purpose field with synthetic floor adequately maintained in the college																				
126	Athlete dressing rooms are well																				

	maintained in the college																			
127	Referee dressing room are well maintained in the college																			
128	Technical room is adequately maintained in the college																			
129	Store room is well maintained in the college																			
130	Ticket office is adequately maintained in the college																			
131	Ware house is well maintained in the college																			
132	Wire—net fencing is adequately maintained in the college																			
133	Bathroom is well maintained in the college																			
134	Press room is adequately maintained in the college																			

Reliability Statistics

Cronbach's Alpha	N of Items
.975	148

States in the zone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kaduna	120	32.4	32.4	32.4
	Kano	157	42.4	42.4	74.9
	Zamfara	93	25.1	25.1	100.0
	Total	370	100.0	100.0	

Institutions in the zone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FCE ZARIA	77	20.8	20.8	20.8
	COE GIDAN WAYA	43	11.6	11.6	32.4
	FCE KANO	69	18.6	18.6	51.1
	SA'ADATU RIMI KOMBOTSO	88	23.8	23.8	74.9
	FCE GUSAU	51	13.8	13.8	88.6
	COE MARU	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

Hypothesis One

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	53.876	3	17.959	.409	.746
Within Groups	16061.054	366	43.883		
Total	16114.930	369			

ANOVA

Hypothesis Two

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	161.203	3	53.734	1.419	.237
Within Groups	13855.340	366	37.856		
Total	14016.543	369			

ANOVA

Hypothesis Three

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	206.494	3	68.831	.577	.631
Within Groups	43694.925	366	119.385		
Total	43901.419	369			

ANOVA

Hypothesis Four

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	174.695	3	58.232	.531	.662
Within Groups	40163.794	366	109.737		
Total	40338.489	369			

ANOVA

Hypothesis Five

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	239.254	3	79.751	1.359	.255
Within Groups	21482.327	366	58.695		
Total	21721.581	369			

ANOVA

Hypothesis Six

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	150.164	3	50.055	.766	.513
Within Groups	23902.326	366	65.307		
Total	24052.489	369			

ANOVA

Hypothesis Seven

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	506.339	3	168.780	1.401	.242
Within Groups	44080.093	366	120.437		
Total	44586.432	369			

ANOVA

Hypothesis Eight

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	859.984	3	286.661	2.465	.062
Within Groups	42568.787	366	116.308		
Total	43428.770	369			

ANOVA

Hypothesis Nine

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	584.244	3	194.748	1.345	.260
Within Groups	53010.537	366	144.838		
Total	53594.781	369			

ANOVA

Hypothesis Ten

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	604.232	3	201.411	1.167	.322
Within Groups	63151.197	366	172.544		
Total	63755.430	369			

Provision of Infrastructural Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	1.1	1.1	1.1

	Disagree	54	14.6	14.6	15.7
	Undecided	8	2.2	2.2	17.8
	Agree	228	61.6	61.6	79.5
	Strongly Agree	76	20.5	20.5	100.0
	Total	370	100.0	100.0	

A2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	1.4	1.4	1.4
	2.00	60	16.2	16.2	17.6
	3.00	18	4.9	4.9	22.4
	4.00	241	65.1	65.1	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

A3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1

	2.00	72	19.5	19.5	24.6
	3.00	13	3.5	3.5	28.1
	4.00	231	62.4	62.4	90.5
	5.00	35	9.5	9.5	100.0
	Total	370	100.0	100.0	

A4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	183	49.5	49.5	54.9
	3.00	32	8.6	8.6	63.5
	4.00	103	27.8	27.8	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

A5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	35	9.5	9.5	9.5
	2.00	140	37.8	37.8	47.3
	3.00	28	7.6	7.6	54.9
	4.00	136	36.8	36.8	91.6
	5.00	31	8.4	8.4	100.0
	Total	370	100.0	100.0	

A6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	36	9.7	9.7	9.7
	2.00	190	51.4	51.4	61.1
	3.00	31	8.4	8.4	69.5
	4.00	78	21.1	21.1	90.5
	5.00	35	9.5	9.5	100.0
	Total	370	100.0	100.0	

A7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	122	33.0	33.0	41.9
	3.00	28	7.6	7.6	49.5
	4.00	148	40.0	40.0	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

A8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	77	20.8	20.8	27.6
	3.00	30	8.1	8.1	35.7
	4.00	201	54.3	54.3	90.0
	5.00	37	10.0	10.0	100.0
	Total	370	100.0	100.0	

A9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1
	2.00	62	16.8	16.8	21.9
	3.00	18	4.9	4.9	26.8
	4.00	218	58.9	58.9	85.7
	5.00	53	14.3	14.3	100.0
	Total	370	100.0	100.0	

A10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	28	7.6	7.6	7.6
	2.00	60	16.2	16.2	23.8
	3.00	21	5.7	5.7	29.5
	4.00	212	57.3	57.3	86.8
	5.00	49	13.2	13.2	100.0
	Total	370	100.0	100.0	

Maintenance of Infrastructural Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.4	2.4	2.4
	Disagree	65	17.6	17.6	20.0
	Undecided	18	4.9	4.9	24.9
	Agree	219	59.2	59.2	84.1
	Strongly Agree	59	15.9	15.9	100.0
	Total	370	100.0	100.0	

B2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	9	2.4	2.4	2.4
	2.00	67	18.1	18.1	20.5
	3.00	30	8.1	8.1	28.6
	4.00	225	60.8	60.8	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

B3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14	3.8	3.8	3.8
	2.00	70	18.9	18.9	22.7
	3.00	22	5.9	5.9	28.6
	4.00	228	61.6	61.6	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

B4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	27	7.3	7.3	7.3
	2.00	186	50.3	50.3	57.6
	3.00	34	9.2	9.2	66.8
	4.00	92	24.9	24.9	91.6
	5.00	31	8.4	8.4	100.0
	Total	370	100.0	100.0	

B5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	158	42.7	42.7	49.5
	3.00	31	8.4	8.4	57.8
	4.00	131	35.4	35.4	93.2
	5.00	25	6.8	6.8	100.0
	Total	370	100.0	100.0	

B6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	192	51.9	51.9	60.8
	3.00	23	6.2	6.2	67.0
	4.00	95	25.7	25.7	92.7
	5.00	27	7.3	7.3	100.0
	Total	370	100.0	100.0	

B7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	122	33.0	33.0	39.7
	3.00	27	7.3	7.3	47.0
	4.00	158	42.7	42.7	89.7
	5.00	38	10.3	10.3	100.0
	Total	370	100.0	100.0	

B8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13	3.5	3.5	3.5
	2.00	74	20.0	20.0	23.5
	3.00	41	11.1	11.1	34.6
	4.00	198	53.5	53.5	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

B9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	64	17.3	17.3	23.5
	3.00	21	5.7	5.7	29.2
	4.00	213	57.6	57.6	86.8
	5.00	49	13.2	13.2	100.0
	Total	370	100.0	100.0	

B10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	67	18.1	18.1	24.1
	3.00	20	5.4	5.4	29.5
	4.00	215	58.1	58.1	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

Provision of Teaching Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	18	4.9	4.9	4.9
	Disagree	58	15.7	15.7	20.5
	Undecided	38	10.3	10.3	30.8
	Agree	213	57.6	57.6	88.4
	Strongly Agree	43	11.6	11.6	100.0
	Total	370	100.0	100.0	

C2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	79	21.4	21.4	27.3
	3.00	39	10.5	10.5	37.8
	4.00	202	54.6	54.6	92.4
	5.00	28	7.6	7.6	100.0
	Total	370	100.0	100.0	

C3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	118	31.9	31.9	37.3
	3.00	49	13.2	13.2	50.5
	4.00	157	42.4	42.4	93.0
	5.00	26	7.0	7.0	100.0
	Total	370	100.0	100.0	

C4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	128	34.6	34.6	40.8
	3.00	46	12.4	12.4	53.2
	4.00	144	38.9	38.9	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

C5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	16	4.3	4.3	4.3
	2.00	136	36.8	36.8	41.1
	3.00	49	13.2	13.2	54.3
	4.00	147	39.7	39.7	94.1
	5.00	22	5.9	5.9	100.0
	Total	370	100.0	100.0	

C6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	24	6.5	6.5	6.5
	2.00	182	49.2	49.2	55.7
	3.00	61	16.5	16.5	72.2
	4.00	82	22.2	22.2	94.3
	5.00	21	5.7	5.7	100.0
	Total	370	100.0	100.0	

C7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	30	8.1	8.1	8.1
	2.00	108	29.2	29.2	37.3
	3.00	43	11.6	11.6	48.9
	4.00	157	42.4	42.4	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

C8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	50	13.5	13.5	19.5
	3.00	36	9.7	9.7	29.2
	4.00	185	50.0	50.0	79.2
	5.00	77	20.8	20.8	100.0
	Total	370	100.0	100.0	

C9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	67	18.1	18.1	24.3
	3.00	46	12.4	12.4	36.8
	4.00	192	51.9	51.9	88.6
	5.00	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

C10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	65	17.6	17.6	23.8
	3.00	46	12.4	12.4	36.2
	4.00	194	52.4	52.4	88.6
	5.00	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

C11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	62	16.8	16.8	22.7
	3.00	100	27.0	27.0	49.7
	4.00	146	39.5	39.5	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

C12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	42	11.4	11.4	11.4
	2.00	73	19.7	19.7	31.1
	3.00	69	18.6	18.6	49.7
	4.00	152	41.1	41.1	90.8
	5.00	34	9.2	9.2	100.0
	Total	370	100.0	100.0	

C13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	31	8.4	8.4	8.4
	2.00	62	16.8	16.8	25.1
	3.00	71	19.2	19.2	44.3
	4.00	169	45.7	45.7	90.0
	5.00	37	10.0	10.0	100.0
	Total	370	100.0	100.0	

C14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	59	15.9	15.9	24.9
	3.00	64	17.3	17.3	42.2
	4.00	182	49.2	49.2	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

C15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	40	10.8	10.8	10.8
	2.00	56	15.1	15.1	25.9
	3.00	50	13.5	13.5	39.5
	4.00	180	48.6	48.6	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

C16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	41	11.1	11.1	11.1
	2.00	127	34.3	34.3	45.4
	3.00	44	11.9	11.9	57.3
	4.00	118	31.9	31.9	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

C17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	7.8	7.8	7.8
	2.00	68	18.4	18.4	26.2
	3.00	54	14.6	14.6	40.8
	4.00	175	47.3	47.3	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

Maintenance of Teaching Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.2	2.2	2.2
	Disagree	64	17.3	17.3	19.5
	Undecided	42	11.4	11.4	30.8
	Agree	209	56.5	56.5	87.3
	Strongly Agree	47	12.7	12.7	100.0
	Total	370	100.0	100.0	

D2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	16	4.3	4.3	4.3
	2.00	77	20.8	20.8	25.1
	3.00	51	13.8	13.8	38.9
	4.00	187	50.5	50.5	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

D3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	88	23.8	23.8	29.7
	3.00	53	14.3	14.3	44.1
	4.00	179	48.4	48.4	92.4
	5.00	28	7.6	7.6	100.0
	Total	370	100.0	100.0	

D4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	77	20.8	20.8	26.2
	3.00	62	16.8	16.8	43.0
	4.00	181	48.9	48.9	91.9
	5.00	30	8.1	8.1	100.0
	Total	370	100.0	100.0	

D5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	17	4.6	4.6	4.6
	2.00	104	28.1	28.1	32.7
	3.00	71	19.2	19.2	51.9
	4.00	159	43.0	43.0	94.9
	5.00	19	5.1	5.1	100.0
	Total	370	100.0	100.0	

D6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	35	9.5	9.5	9.5
	2.00	152	41.1	41.1	50.5
	3.00	75	20.3	20.3	70.8
	4.00	89	24.1	24.1	94.9
	5.00	19	5.1	5.1	100.0
	Total	370	100.0	100.0	

D7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	101	27.3	27.3	34.3
	3.00	68	18.4	18.4	52.7
	4.00	150	40.5	40.5	93.2
	5.00	25	6.8	6.8	100.0
	Total	370	100.0	100.0	

D8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	27	7.3	7.3	7.3
	2.00	70	18.9	18.9	26.2
	3.00	38	10.3	10.3	36.5
	4.00	182	49.2	49.2	85.7
	5.00	53	14.3	14.3	100.0
	Total	370	100.0	100.0	

D9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	28	7.6	7.6	7.6
	2.00	61	16.5	16.5	24.1
	3.00	36	9.7	9.7	33.8
	4.00	206	55.7	55.7	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

D10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14	3.8	3.8	3.8
	2.00	64	17.3	17.3	21.1
	3.00	43	11.6	11.6	32.7
	4.00	197	53.2	53.2	85.9
	5.00	52	14.1	14.1	100.0
	Total	370	100.0	100.0	

D11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	68	18.4	18.4	24.3
	3.00	81	21.9	21.9	46.2
	4.00	167	45.1	45.1	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

D12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	38	10.3	10.3	10.3
	2.00	84	22.7	22.7	33.0
	3.00	56	15.1	15.1	48.1
	4.00	163	44.1	44.1	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

D13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	7.8	7.8	7.8
	2.00	74	20.0	20.0	27.8
	3.00	54	14.6	14.6	42.4
	4.00	180	48.6	48.6	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

D14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	5.7	5.7	5.7
	2.00	69	18.6	18.6	24.3
	3.00	58	15.7	15.7	40.0
	4.00	181	48.9	48.9	88.9
	5.00	41	11.1	11.1	100.0
	Total	370	100.0	100.0	

D15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	16	4.3	4.3	4.3
	2.00	72	19.5	19.5	23.8
	3.00	60	16.2	16.2	40.0
	4.00	172	46.5	46.5	86.5
	5.00	50	13.5	13.5	100.0
	Total	370	100.0	100.0	

D16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	113	30.5	30.5	39.7
	3.00	56	15.1	15.1	54.9
	4.00	129	34.9	34.9	89.7
	5.00	38	10.3	10.3	100.0
	Total	370	100.0	100.0	

D17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	27	7.3	7.3	7.3
	2.00	57	15.4	15.4	22.7
	3.00	55	14.9	14.9	37.6
	4.00	183	49.5	49.5	87.0
	5.00	48	13.0	13.0	100.0
	Total	370	100.0	100.0	

Provision of Learning Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.2	2.2	2.2
	Disagree	57	15.4	15.4	17.6
	Undecided	26	7.0	7.0	24.6
	Agree	205	55.4	55.4	80.0
	Strongly Agree	74	20.0	20.0	100.0
	Total	370	100.0	100.0	

E2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13	3.5	3.5	3.5
	2.00	55	14.9	14.9	18.4
	3.00	17	4.6	4.6	23.0
	4.00	220	59.5	59.5	82.4
	5.00	65	17.6	17.6	100.0
	Total	370	100.0	100.0	

E3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	16	4.3	4.3	4.3
	2.00	55	14.9	14.9	19.2
	3.00	15	4.1	4.1	23.2
	4.00	215	58.1	58.1	81.4
	5.00	69	18.6	18.6	100.0
	Total	370	100.0	100.0	

E4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	27	7.3	7.3	7.3
	2.00	100	27.0	27.0	34.3
	3.00	24	6.5	6.5	40.8
	4.00	175	47.3	47.3	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

E5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	24	6.5	6.5	6.5
	2.00	86	23.2	23.2	29.7
	3.00	34	9.2	9.2	38.9
	4.00	183	49.5	49.5	88.4
	5.00	43	11.6	11.6	100.0
	Total	370	100.0	100.0	

E6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	39	10.5	10.5	10.5
	2.00	157	42.4	42.4	53.0
	3.00	25	6.8	6.8	59.7
	4.00	103	27.8	27.8	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

E7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	8.6	8.6	8.6
	2.00	57	15.4	15.4	24.1
	3.00	36	9.7	9.7	33.8
	4.00	185	50.0	50.0	83.8
	5.00	60	16.2	16.2	100.0
	Total	370	100.0	100.0	

E8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	30	8.1	8.1	8.1
	2.00	75	20.3	20.3	28.4
	3.00	64	17.3	17.3	45.7
	4.00	162	43.8	43.8	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

E9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	131	35.4	35.4	44.6
	3.00	70	18.9	18.9	63.5
	4.00	99	26.8	26.8	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

E10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	8.6	8.6	8.6
	2.00	124	33.5	33.5	42.2
	3.00	66	17.8	17.8	60.0
	4.00	112	30.3	30.3	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

E11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	68	18.4	18.4	27.6
	3.00	44	11.9	11.9	39.5
	4.00	173	46.8	46.8	86.2
	5.00	51	13.8	13.8	100.0
	Total	370	100.0	100.0	

Maintenance of Learning Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	29	7.8	7.8	7.8
	Disagree	70	18.9	18.9	26.8
	Undecided	27	7.3	7.3	34.1
	Agree	178	48.1	48.1	82.2
	Strongly Agree	66	17.8	17.8	100.0
	Total	370	100.0	100.0	

F2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	5.7	5.7	5.7
	2.00	80	21.6	21.6	27.3
	3.00	23	6.2	6.2	33.5
	4.00	191	51.6	51.6	85.1
	5.00	55	14.9	14.9	100.0
	Total	370	100.0	100.0	

F3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	66	17.8	17.8	24.1
	3.00	22	5.9	5.9	30.0
	4.00	213	57.6	57.6	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

F4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	88	23.8	23.8	30.8
	3.00	46	12.4	12.4	43.2
	4.00	163	44.1	44.1	87.3
	5.00	47	12.7	12.7	100.0
	Total	370	100.0	100.0	

F5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	73	19.7	19.7	26.5
	3.00	36	9.7	9.7	36.2
	4.00	194	52.4	52.4	88.6
	5.00	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

F6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	46	12.4	12.4	12.4
	2.00	125	33.8	33.8	46.2
	3.00	38	10.3	10.3	56.5
	4.00	115	31.1	31.1	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

F7

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	1.00	38	10.3	10.3	10.3
	2.00	53	14.3	14.3	24.6
	3.00	30	8.1	8.1	32.7
	4.00	196	53.0	53.0	85.7
	5.00	53	14.3	14.3	100.0
	Total	370	100.0	100.0	

F8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	30	8.1	8.1	8.1
	2.00	79	21.4	21.4	29.5
	3.00	55	14.9	14.9	44.3
	4.00	166	44.9	44.9	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

F9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	8.6	8.6	8.6
	2.00	138	37.3	37.3	45.9
	3.00	52	14.1	14.1	60.0
	4.00	98	26.5	26.5	86.5
	5.00	50	13.5	13.5	100.0
	Total	370	100.0	100.0	

F10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	18	4.9	4.9	4.9
	2.00	110	29.7	29.7	34.6
	3.00	49	13.2	13.2	47.8
	4.00	128	34.6	34.6	82.4
	5.00	65	17.6	17.6	100.0
	Total	370	100.0	100.0	

F11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	23	6.2	6.2	6.2
	2.00	75	20.3	20.3	26.5
	3.00	41	11.1	11.1	37.6
	4.00	178	48.1	48.1	85.7
	5.00	53	14.3	14.3	100.0
	Total	370	100.0	100.0	

Provision of Welfare Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	30	8.1	8.1	8.1
	Disagree	73	19.7	19.7	27.8
	Undecided	39	10.5	10.5	38.4
	Agree	176	47.6	47.6	85.9
	Strongly Agree	52	14.1	14.1	100.0
	Total	370	100.0	100.0	

G2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	79	21.4	21.4	28.4
	3.00	33	8.9	8.9	37.3
	4.00	190	51.4	51.4	88.6
	5.00	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

G3

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	1.00	31	8.4	8.4	8.4
	2.00	48	13.0	13.0	21.4
	3.00	30	8.1	8.1	29.5
	4.00	219	59.2	59.2	88.6
	5.00	42	11.4	11.4	100.0
	Total	370	100.0	100.0	

G4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	7.8	7.8	7.8
	2.00	66	17.8	17.8	25.7
	3.00	36	9.7	9.7	35.4
	4.00	196	53.0	53.0	88.4
	5.00	43	11.6	11.6	100.0
	Total	370	100.0	100.0	

G5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	36	9.7	9.7	9.7
	2.00	86	23.2	23.2	33.0
	3.00	37	10.0	10.0	43.0
	4.00	172	46.5	46.5	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

G6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	106	28.6	28.6	37.6
	3.00	47	12.7	12.7	50.3
	4.00	139	37.6	37.6	87.8
	5.00	45	12.2	12.2	100.0
	Total	370	100.0	100.0	

G7

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	1.00	39	10.5	10.5	10.5
	2.00	86	23.2	23.2	33.8
	3.00	35	9.5	9.5	43.2
	4.00	160	43.2	43.2	86.5
	5.00	50	13.5	13.5	100.0
	Total	370	100.0	100.0	

G8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	8.6	8.6	8.6
	2.00	98	26.5	26.5	35.1
	3.00	33	8.9	8.9	44.1
	4.00	163	44.1	44.1	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

G9

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	1.00	35	9.5	9.5	9.5
	2.00	108	29.2	29.2	38.6
	3.00	38	10.3	10.3	48.9
	4.00	157	42.4	42.4	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

G10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	81	21.9	21.9	28.6
	3.00	48	13.0	13.0	41.6
	4.00	180	48.6	48.6	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

G11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	65	17.6	17.6	26.8
	3.00	35	9.5	9.5	36.2
	4.00	180	48.6	48.6	84.9
	5.00	56	15.1	15.1	100.0
	Total	370	100.0	100.0	

G12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	28	7.6	7.6	7.6
	2.00	81	21.9	21.9	29.5
	3.00	48	13.0	13.0	42.4
	4.00	181	48.9	48.9	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

G13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	38	10.3	10.3	10.3
	2.00	113	30.5	30.5	40.8
	3.00	62	16.8	16.8	57.6
	4.00	128	34.6	34.6	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

G14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	28	7.6	7.6	7.6
	2.00	90	24.3	24.3	31.9
	3.00	60	16.2	16.2	48.1
	4.00	169	45.7	45.7	93.8
	5.00	23	6.2	6.2	100.0
	Total	370	100.0	100.0	

G15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1
	2.00	68	18.4	18.4	23.5
	3.00	52	14.1	14.1	37.6
	4.00	183	49.5	49.5	87.0
	5.00	48	13.0	13.0	100.0
	Total	370	100.0	100.0	

G16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	66	17.8	17.8	23.8
	3.00	39	10.5	10.5	34.3
	4.00	189	51.1	51.1	85.4
	5.00	54	14.6	14.6	100.0
	Total	370	100.0	100.0	

G17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1
	2.00	58	15.7	15.7	20.8
	3.00	43	11.6	11.6	32.4
	4.00	196	53.0	53.0	85.4
	5.00	54	14.6	14.6	100.0
	Total	370	100.0	100.0	

Maintenance of Welfare Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	29	7.8	7.8	7.8
	Disagree	95	25.7	25.7	33.5
	Undecided	42	11.4	11.4	44.9
	Agree	158	42.7	42.7	87.6
	Strongly Agree	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

H2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	92	24.9	24.9	30.8
	3.00	44	11.9	11.9	42.7
	4.00	173	46.8	46.8	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

H3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	10	2.7	2.7	2.7
	2.00	68	18.4	18.4	21.1
	3.00	33	8.9	8.9	30.0
	4.00	211	57.0	57.0	87.0
	5.00	48	13.0	13.0	100.0
	Total	370	100.0	100.0	

H4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	96	25.9	25.9	31.4
	3.00	44	11.9	11.9	43.2
	4.00	170	45.9	45.9	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

H5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	24	6.5	6.5	6.5
	2.00	106	28.6	28.6	35.1
	3.00	48	13.0	13.0	48.1
	4.00	162	43.8	43.8	91.9
	5.00	30	8.1	8.1	100.0
	Total	370	100.0	100.0	

H6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	118	31.9	31.9	38.6
	3.00	37	10.0	10.0	48.6
	4.00	150	40.5	40.5	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

H7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	89	24.1	24.1	33.2
	3.00	35	9.5	9.5	42.7
	4.00	179	48.4	48.4	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

H8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	9.2	9.2	9.2
	2.00	104	28.1	28.1	37.3
	3.00	37	10.0	10.0	47.3
	4.00	166	44.9	44.9	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

H9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	31	8.4	8.4	8.4
	2.00	99	26.8	26.8	35.1
	3.00	37	10.0	10.0	45.1
	4.00	163	44.1	44.1	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

H10

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	1.00	32	8.6	8.6	8.6
	2.00	82	22.2	22.2	30.8
	3.00	45	12.2	12.2	43.0
	4.00	175	47.3	47.3	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

H11

H 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	7.8	7.8	7.8
	2.00	69	18.6	18.6	26.5
	3.00	48	13.0	13.0	39.5
	4.00	183	49.5	49.5	88.9
	5.00	41	11.1	11.1	100.0
	Total	370	100.0	100.0	

H12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	8.6	8.6	8.6
	2.00	68	18.4	18.4	27.0
	3.00	51	13.8	13.8	40.8
	4.00	174	47.0	47.0	87.8
	5.00	45	12.2	12.2	100.0
	Total	370	100.0	100.0	

H13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	21	5.7	5.7	5.7
	2.00	109	29.5	29.5	35.1
	3.00	74	20.0	20.0	55.1
	4.00	118	31.9	31.9	87.0
	5.00	48	13.0	13.0	100.0
	Total	370	100.0	100.0	

H14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	87	23.5	23.5	30.5
	3.00	59	15.9	15.9	46.5
	4.00	149	40.3	40.3	86.8
	5.00	49	13.2	13.2	100.0
	Total	370	100.0	100.0	

H15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	64	17.3	17.3	24.1
	3.00	53	14.3	14.3	38.4
	4.00	183	49.5	49.5	87.8
	5.00	45	12.2	12.2	100.0
	Total	370	100.0	100.0	

H16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1
	2.00	68	18.4	18.4	23.5
	3.00	45	12.2	12.2	35.7
	4.00	189	51.1	51.1	86.8
	5.00	49	13.2	13.2	100.0
	Total	370	100.0	100.0	

H17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	59	15.9	15.9	21.4
	3.00	47	12.7	12.7	34.1
	4.00	193	52.2	52.2	86.2
	5.00	51	13.8	13.8	100.0
	Total	370	100.0	100.0	

Provision of Recreation & Game Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	17	4.6	4.6	4.6
	Disagree	79	21.4	21.4	25.9
	Undecided	28	7.6	7.6	33.5
	Agree	192	51.9	51.9	85.4
	Strongly Agree	54	14.6	14.6	100.0
	Total	370	100.0	100.0	

I2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	82	22.2	22.2	27.6
	3.00	30	8.1	8.1	35.7
	4.00	194	52.4	52.4	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

I3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	20	5.4	5.4	5.4
	2.00	78	21.1	21.1	26.5
	3.00	44	11.9	11.9	38.4
	4.00	188	50.8	50.8	89.2
	5.00	40	10.8	10.8	100.0
	Total	370	100.0	100.0	

I4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	66	17.8	17.8	17.8
	2.00	172	46.5	46.5	64.3
	3.00	29	7.8	7.8	72.2
	4.00	79	21.4	21.4	93.5
	5.00	24	6.5	6.5	100.0
	Total	370	100.0	100.0	

I5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	22	5.9	5.9	5.9
	2.00	91	24.6	24.6	30.5
	3.00	30	8.1	8.1	38.6
	4.00	188	50.8	50.8	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

I6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	7.8	7.8	7.8
	2.00	87	23.5	23.5	31.4
	3.00	47	12.7	12.7	44.1
	4.00	170	45.9	45.9	90.0
	5.00	37	10.0	10.0	100.0
	Total	370	100.0	100.0	

I7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	72	19.5	19.5	26.5
	3.00	50	13.5	13.5	40.0
	4.00	178	48.1	48.1	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

I8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	31	8.4	8.4	8.4
	2.00	150	40.5	40.5	48.9
	3.00	66	17.8	17.8	66.8
	4.00	77	20.8	20.8	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

I9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	47	12.7	12.7	12.7
	2.00	161	43.5	43.5	56.2
	3.00	62	16.8	16.8	73.0
	4.00	65	17.6	17.6	90.5
	5.00	35	9.5	9.5	100.0
	Total	370	100.0	100.0	

I10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	40	10.8	10.8	10.8
	2.00	167	45.1	45.1	55.9
	3.00	54	14.6	14.6	70.5
	4.00	84	22.7	22.7	93.2
	5.00	25	6.8	6.8	100.0
	Total	370	100.0	100.0	

I11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	42	11.4	11.4	11.4
	2.00	105	28.4	28.4	39.7
	3.00	51	13.8	13.8	53.5
	4.00	143	38.6	38.6	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

I12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	96	25.9	25.9	34.9
	3.00	48	13.0	13.0	47.8
	4.00	155	41.9	41.9	89.7
	5.00	38	10.3	10.3	100.0
	Total	370	100.0	100.0	

I13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	31	8.4	8.4	8.4
	2.00	84	22.7	22.7	31.1
	3.00	55	14.9	14.9	45.9
	4.00	154	41.6	41.6	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

I14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	30	8.1	8.1	8.1
	2.00	71	19.2	19.2	27.3
	3.00	46	12.4	12.4	39.7
	4.00	176	47.6	47.6	87.3
	5.00	47	12.7	12.7	100.0
	Total	370	100.0	100.0	

I15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	88	23.8	23.8	32.7
	3.00	51	13.8	13.8	46.5
	4.00	152	41.1	41.1	87.6
	5.00	46	12.4	12.4	100.0
	Total	370	100.0	100.0	

I16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	83	22.4	22.4	31.4
	3.00	59	15.9	15.9	47.3
	4.00	166	44.9	44.9	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

I17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	31	8.4	8.4	8.4
	2.00	83	22.4	22.4	30.8
	3.00	57	15.4	15.4	46.2
	4.00	170	45.9	45.9	92.2
	5.00	29	7.8	7.8	100.0
	Total	370	100.0	100.0	

I18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	25	6.8	6.8	6.8
	2.00	100	27.0	27.0	33.8
	3.00	55	14.9	14.9	48.6
	4.00	160	43.2	43.2	91.9
	5.00	30	8.1	8.1	100.0
	Total	370	100.0	100.0	

I19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	37	10.0	10.0	10.0
	2.00	88	23.8	23.8	33.8
	3.00	51	13.8	13.8	47.6
	4.00	161	43.5	43.5	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

Maintenance of Recreation & Game Facilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	23	6.2	6.2	6.2
	Disagree	79	21.4	21.4	27.6
	Undecided	27	7.3	7.3	34.9
	Agree	189	51.1	51.1	85.9
	Strongly Agree	52	14.1	14.1	100.0
	Total	370	100.0	100.0	

J2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13	3.5	3.5	3.5
	2.00	78	21.1	21.1	24.6
	3.00	39	10.5	10.5	35.1
	4.00	197	53.2	53.2	88.4
	5.00	43	11.6	11.6	100.0
	Total	370	100.0	100.0	

J3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	19	5.1	5.1	5.1
	2.00	88	23.8	23.8	28.9
	3.00	39	10.5	10.5	39.5
	4.00	191	51.6	51.6	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

J4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	58	15.7	15.7	15.7
	2.00	189	51.1	51.1	66.8
	3.00	43	11.6	11.6	78.4
	4.00	55	14.9	14.9	93.2
	5.00	25	6.8	6.8	100.0
	Total	370	100.0	100.0	

J5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	26	7.0	7.0	7.0
	2.00	90	24.3	24.3	31.4
	3.00	48	13.0	13.0	44.3
	4.00	173	46.8	46.8	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

J6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	39	10.5	10.5	10.5
	2.00	79	21.4	21.4	31.9
	3.00	32	8.6	8.6	40.5
	4.00	179	48.4	48.4	88.9
	5.00	41	11.1	11.1	100.0
	Total	370	100.0	100.0	

J7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	40	10.8	10.8	10.8
	2.00	73	19.7	19.7	30.5
	3.00	32	8.6	8.6	39.2
	4.00	181	48.9	48.9	88.1
	5.00	44	11.9	11.9	100.0
	Total	370	100.0	100.0	

J8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	42	11.4	11.4	11.4
	2.00	161	43.5	43.5	54.9
	3.00	44	11.9	11.9	66.8
	4.00	84	22.7	22.7	89.5
	5.00	39	10.5	10.5	100.0
	Total	370	100.0	100.0	

J9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	52	14.1	14.1	14.1
	2.00	167	45.1	45.1	59.2
	3.00	46	12.4	12.4	71.6
	4.00	73	19.7	19.7	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	

J10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	45	12.2	12.2	12.2
	2.00	161	43.5	43.5	55.7
	3.00	49	13.2	13.2	68.9
	4.00	68	18.4	18.4	87.3
	5.00	47	12.7	12.7	100.0
	Total	370	100.0	100.0	

J11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	46	12.4	12.4	12.4
	2.00	98	26.5	26.5	38.9
	3.00	57	15.4	15.4	54.3
	4.00	136	36.8	36.8	91.1
	5.00	33	8.9	8.9	100.0
	Total	370	100.0	100.0	

J12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	42	11.4	11.4	11.4
	2.00	77	20.8	20.8	32.2
	3.00	54	14.6	14.6	46.8
	4.00	154	41.6	41.6	88.4
	5.00	43	11.6	11.6	100.0
	Total	370	100.0	100.0	

J13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	44	11.9	11.9	11.9
	2.00	72	19.5	19.5	31.4
	3.00	54	14.6	14.6	45.9
	4.00	155	41.9	41.9	87.8
	5.00	45	12.2	12.2	100.0
	Total	370	100.0	100.0	

J14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	39	10.5	10.5	10.5
	2.00	69	18.6	18.6	29.2
	3.00	52	14.1	14.1	43.2
	4.00	165	44.6	44.6	87.8
	5.00	45	12.2	12.2	100.0
	Total	370	100.0	100.0	

J15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	36	9.7	9.7	9.7
	2.00	76	20.5	20.5	30.3
	3.00	56	15.1	15.1	45.4
	4.00	161	43.5	43.5	88.9
	5.00	41	11.1	11.1	100.0
	Total	370	100.0	100.0	

J16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	86	23.2	23.2	32.2
	3.00	56	15.1	15.1	47.3
	4.00	165	44.6	44.6	91.9
	5.00	30	8.1	8.1	100.0
	Total	370	100.0	100.0	

J17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	33	8.9	8.9	8.9
	2.00	84	22.7	22.7	31.6
	3.00	49	13.2	13.2	44.9
	4.00	163	44.1	44.1	88.9
	5.00	41	11.1	11.1	100.0
	Total	370	100.0	100.0	

J18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	43	11.6	11.6	11.6
	2.00	81	21.9	21.9	33.5
	3.00	44	11.9	11.9	45.4
	4.00	166	44.9	44.9	90.3
	5.00	36	9.7	9.7	100.0
	Total	370	100.0	100.0	

J19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	27	7.3	7.3	7.3
	2.00	83	22.4	22.4	29.7
	3.00	53	14.3	14.3	44.1
	4.00	175	47.3	47.3	91.4
	5.00	32	8.6	8.6	100.0
	Total	370	100.0	100.0	