# EFFECTS OF TEACHER QUALITY, AVAILABILITY AND UTILIZATION OF TEACHING RESOURCES ON JSS STUDENTS ACADEMIC ACHIEVEMENT IN SOCIAL STUDIES IN KANO METROPOLIS

BY

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# APPROVAL PAGE

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# **CERTIFICATION PAGE**

I certified that this research study was conducted, written	n and complied by me. I also certified			
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# **DEDICATION PAGE**

This research study is dedicated to the entire families of Mallam Haruna Musa and Sailuba and my husband ACP. Rabi'u Yahaya Yakasai.

#### **ACKNOWLEDGEMENTS**

All praise is to Allah (SWT) the all knower, the beneficent and the merciful. Who in his infinite mercy give me the life, health and ability to engage in this study. May his blessings be upon his last messenger prophet Muhammad (SAW), his companions, families and those who followed him in righteousness to the Day of Judgment. Ameen.

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#### Abstract

This study explore the availability and utilization of teaching resources by Junior Secondary School social studies teachers in Kano Metropolis. The purpose of the study was to examine the availability of teaching resource, levels of teachers' utilization of the available resources, and the level of students' academic achievement in social studies (National Values) among junior secondary school students in Kano Metropolis. The study equally explore whether a significant difference exist in social studies teachers' utilization of teaching resources on the account of gender, qualification and years of work experience. The study employed descriptive survey research design. The population of the study consist of 456 social studies teachers across the 243 junior secondary schools out of which a sample of 196 teachers were drawn using multi-stage sampling technique. The study equally covers 7052 junior secondary school students across eight selected schools that sat for 2015/16, 2016/17, 2017/18 Basic Education Certificate Examination (BECE). A researcher made questionnaire tagged "Availability and Utilization of Teaching Resources by JSS social studies teachers in Kano Metropolis" was used as data collection instrument. The instrument has an overall reliability index of .881, while teaching resource subscale and Utilization of teaching resources subscale were having .804 and .835 reliability index respectively. Collected data was analyzed using descriptive statistics, documentary analysis and inferential statistics using ANOVA and t-test to test the formulated null hypotheses at 0.05 level of significance. Findings of the study revealed that teaching resources are not adequately provided and teachers had low level of utilization of the available resources in schools. It was found that junior secondary school students in Kano Metropolis had low level of academic achievement. The study found that teachers' gender had no significant impact on their utilization of teaching resources while teachers' qualification and years of work experience had bearing on their utilization of teaching resources. The study recommended the provision of all the necessary teaching resources and the engagement of teachers in mandatory workshop and training to boost their knowledge of resource utilization.

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## **Operational Definition of Terms**

**Availability:** It refers to sufficient quantity of teaching resources for teaching of social Studies in Junior Secondary Schools.

**Social Studies Teachers**: refers to teachers in junior secondary schools whose teaching subject is social studies.

**Teachers Quality:** refers to the teachers' ability to effectively discharge their mandate as teachers.

**Teaching Resources**: refers to any materials which a teachers could utilize in an effort to supplement their effort in teaching.

**Utilization**: The sum total of all teaching resources used directly or indirectly for the purpose of educational training to facilitate or encourage the acquisition of knowledge and skill in Social Studies

#### **CHAPTER ONE**

#### INTRODUCTION

## 1.1 Background of the Study

Education is one of the leading instruments for promoting economic development as it encompasses some processes individuals go through to help them develop and utilize their potentials. Okeke (2007), noted that, through education, individuals acquire knowledge, skills and attitude that are necessary for effective living. Usman (2007), noted that central to the education process are educational teaching resources which play an important role in the achievement of education objectives and goals by enhancing effective teaching and learning. Furthermore, teachers at all levels of education play the decisive role in pivoting the growth and direction of education. It is an acceptable fact that teachers are the most importanteducational machine and are mainly instrumental to the success of any educational programme embarked upon by any government. This is because apart from being at the implementation level of any educational policy, the realization of these programme also depends greatly on teachers' dedication and commitment to their duties (Rukayya, 1995).

It is pertinent to note that the discharge of teachers' duties is dependent upon a number of factors among which are teachers' quality and availability of teaching resources. Darling-Hammand (2000) states that the characteristics of teachers' quality are; verbal ability, subject-matter knowledge, knowledge of teaching and learning and lastly the ability to use a wide range of teaching strategies to meet students' needs. According to Saleemi (2005) teacher's foremost duty is intellectual / creative development of the students. Hart and Teeter (2002) postulated that qualitative teachers are those having skills to design learning and experiences that inspire the

students, having a lot of enthusiasm for the teaching profession, having a caring attitude towards students, a thorough understanding of their subject, having a lot of involvement with parents, garnered years of experience and a good qualification. Thus, in order to meet the changing demands of their jobs, high-quality teachers must be capable and willing to continuously learn and relearn their trade. Professional development and collaboration with other teachers are strategies for building educators' capacity for effective teaching, particularly in a profession where demands are changing and expanding. However, traditional approaches to professional development (e.g., workshops, conferences) have been criticized for being relatively ineffective because they typically lack connection to the challenges teachers face in their classrooms, and they are usually short term. Research suggests that unless professional development programs are carefully designed and implemented to provide continuity between what teachers learn and what goes on in their classrooms and schools, these activities are not likely to produce any long-lasting effects on either teacher competence or student outcomes (Fullan with Stiegelbauer, 1991). Thus, having an effective teacher can dramatically alter students' educational outcomes.

Teaching resources on the other hand are composite to quality teaching. Aduwa-Ogiegbaen and Imogie (2005) postulated that teaching resources including audio tape recorders, video tape recorders, slide projectors, opaque projectors, over head projectors, still pictures, programmed instruction, filmstrips, maps, chart, graphs and many more offer a variety of learning experiences individually or in combination to meet different teaching and learning experiences. This is because, at any level of teaching, students are expected to be expose to materials, objects or devices which help to make learning meaningful with the sole aim of promoting efficiency in the teaching and learning process. The use of teaching resources provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more.

Furthermore the teacher is assisted in overcoming physical difficulties that could have hindered his effective presentation of a given topic (Okobia, 2011).

Bolick, Berson, Coutts and Heinecke (2003) observed that while some educators are fascinated by the potential of teaching resources in enhancing teaching and learning, other teachers lagged behind in using them to teach. However, achieving these laudable goals of thorough utilization of teaching resources in social studies teaching and learning has been very challenging in developing countries such as Nigeria. This may have resulted from lack of or underutilization of the teaching resources by teachers. The main focus of this study is to examine availability and utilization of teaching resources on JSS students' academic achievement in social studies in Kano Metropolis.

## 1.2 Statement of the Problem

Teacher quality and an appropriate teaching resources are indispensable factors in the teaching and learning processes. For any educational system to function smoothly, the system must have an arsenal of qualified and qualitative teachers coupled with the provision of sound teaching resources. This is because ordinary words or verbalization of instruction has been found to be inadequate for effective teaching. Thus, educators have over the years been clamoring for proper utilization of teaching resources for the sole reason that teaching resources serve as an avenue through which message, information, ideas and knowledge are effectively disseminated. The idea is that when students are made to see, hear or feel, there is a higher degree of getting them and appreciate subject matter taught.

However, despite the promising role of teaching resources in facilitating the teaching and learning process, their provision were characterized with gross inadequacy and underutilization

of the teaching resources by teachers, consequently, leading to poor students' academic achievement. Thus, this study seek to examine availability and utilization of teaching resources by social studies teachers and it impact on JSS students' academic achievement in Kano Metropolis.

## 1.3 Objectives of the Study

The intend of this study is to investigate availability and utilization of teaching resources on JSS students' academic performance achievement in social studies in Kano Metropolis and the research shall attempt to:

- 1. Examine the level of availability of teaching resources in JSS in Kano metropolis.
- 2. To find out the extent at which JSS teachers in Kano Metropolis utilize teaching resources while teaching.
- 3. To explore the differences in teachers' utilization of teaching resources on the account of gender.
- 4. To investigate the differences in teachers' utilization of teaching resources on the account of qualifications.
- 5. To examine differences in teachers' utilization of teaching resources on the account of years of work experience?
- 6. To explore the level of JSS students' academic achievements in Social Studies in Kano Metropolis?

## 1.4 Research Questions

This study is said to find answers to the following questions

1. What is the level of availability of teaching resources in JSS in Kano metropolis?

- 2. What is the extent at which JSS teachers in Kano Metropolis utilize teaching resources while teaching?
- 3. What is the differences in teachers' utilization of teaching resources on the account of gender?
- 4. What is the differences in teachers' utilization of teaching resources on the account of qualifications?
- 5. What is the differences in teachers' utilization of teaching resources on the account of years of work experience?
- 6. What is the level of JSS students' academic achievements in Kano Metropolis?

#### 1.5 Research Hypotheses

- There is no significant difference in teachers' utilization of teaching resource on the account of gender.
- **2.** There is no significant differences in teachers' utilization of teaching resources on the account of qualifications.
- **3.** There is no significant differences in teachers' utilization of teaching resources on the account of years of work experience.

## 1.6 Significance of the Study

The findings of this study are expected to have theoretical and practical significance. The result to the government, junior secondary schools administrators and teachers, and the society in general. It will be of benefits to the government because when evaluation, is done the area of weakness in the implementation process of the junior secondary schools will be revealed, and this will help the government to plan possible strategies for improvement on the implementation

process. The findings of this study will be of use to JSS teachers who stand to understand more about their qualities and related issues.

The research will benefit the SUBEB as the study will unveil the true state of teaching resources in junior secondary schools in the study area. It is hoped that this will serve as a basis for the provision of learning materials in junior secondary schools in Kano metropolis for effective teaching and learning. The study findings will also be useful to SUBEB as it will provide them with information that will assist them in the management of the JSS programs.

The result of this study will enlighten the parent and society to the prevailing realities in the universal basic education (Junior Secondary School) upper basic.

The local education authorities will also find this study useful as it requires teacher's recruitment, training as well as provision for teaching materials in junior secondary schools upper basic.

The findings of this study will be important to curriculum implementation stakeholders and this will at long run enhance effective curriculum implementation since the result of this study will expose the teachers to their success and failure and this will give them basis for striving for improvement in area of curriculum implementation.

# 1.7 Scope and Delimitation of the Study

This study is centered on examining the impact of teacher quality and teaching resources on junior secondary school students' academic achievement in Social studies in Kano Metropolis. The study focused on examining the social studies teachers' quality and the provision of teaching resources in schools and how such impacted on the academic achievement of students in social

studies. The studies covers only social studies teachers in public junior secondary schools in Kano Metropolis. The study equally seek to explore the link of teachers' demographics such as gender, qualification and work experience on their ability to effectively utilize availably teaching resources. Equally covered in the study was overall students' academic achievement in social studies of JSS III students that sat for Basic Education Certificate Examination (BECE) in the last three sessions (2016/17, 2017/18, 2018/19 sessions).

The study covers only social studies teachers. Thus, all other teachers of junior secondary school teachers were not covered in the study. Furthermore, social studies teachers of private schools were not included in the study. Similarly, the study covers students' achievement in social studies only.

#### **CHAPTER TWO**

#### REVIEW OF RELATED LITERATURE

#### 2.1 Introduction

This chapter covers review of related literature. The first segment of the chapter covers the conceptual framework of the study, this was followed by theoretical framework of the study, review of related empirical studies and the chapter ended with a summary and uniqueness of the study.

## 2.2 Conceptual Framework

## 2.2.1 Concept of Teacher Quality

Teacher quality is said to be the most important factor influencing learner outcomes. A variety of resources can and should be used to identify indicators to identify teachers' quality. Teacher quality is an overall concept that comprises not only knowledge and skills but also personal qualities (respect, care, courage, empathy, attitudes, identity, beliefs etc). The quality of teacher is an important issues in both national and European policies teacher qualification plays a very significant role in increasing and safeguarding the quality of teachers. The association for teacher education in Europe through the international exchange of research and practices in pre-service and in-service training.

The national policy on education 2009 stated that the teacher education will continue to be given a major emphasis in all our education planning because no education can rise above its teacher the policy stated that, the purpose of teacher education in Nigeria is as follows:-

a. To produce mainly motivated teacher for all level of our education system.

- b. To encourage further the spirit of enquiring and creativity in teachers.
- c. To help teachers fit into the social life of the community and society at large and to enhanced their commitments to national objectives.
- d. To provide teachers with intellectual and professional background adequate for the assignment and to make them adoptable to any changing situation not only in their country but in the wider world.

## 2.2.2 Concept of Teaching Resources

Teaching resources refers to all materials that are designed for use by pupils and their teachers as a learning resource and help pupils acquire facts, skills or opinions or develop cognitive process (Association of American Publishers School Division in Osokoya, 2007). According to this association, teaching resources may be printed or non-printed, and may include textbooks, technology-based materials, others are educational materials and tests. It further adds that teaching resources must have intellectual content that by design services as a major tool for assisting in the instruction of a subject or course. Similarly, Adeyemo (2010), viewed teaching resources are materials designed and utilized during teaching/learning situations to clarify abstract words or concepts. She explained that those materials are essential supplements to teaching which represent a body of needed teaching and learning information, and that these materials reduce the work load of the teacher in the classroom. In the opinion of Aina in Adeyemo (2010), teaching resources are those resources used in any teaching exercise to promote greater understanding of the learning experience. The same view Agina-Obu in Adeyemo (2010), describes "teaching aids" as anything that helps the teacher to promote teaching and learning activities". According to him, these include stone, sand, pictures, resource

person, diagram, sketches, maps among others. Another source explains that Instructional (material) resources are those things equipment and materials used in the process of instruction to supplement or compliment the teachers" tasks. It can also be described as tools through which an instructional message passes from the giver (teacher to the receiver (students).

Similarly, Ikerionwu in Oladejo, Olosunde, Ojebisi and Isola (2011), viewed them as didactic materials thing which are supposed to make learning and teaching possible. According to Agina-Obu in Oladejo et al (2011) instructional materials are materials or tools locally made or imported that could made tremendous enhancement of lesson impact if intelligently used. Isola (2010), referred to them as objects or devices, which help the teacher to make a lesson much clearer to the learner. Instructional materials are also described as concrete or physical objects which provide sound, visual or both to the sense organs during teaching. Furthermore, Prawat in Mwalyego (2014), says that the teacher's work as communicator, model and identification figure can be supported by a wise use of variety of devices that expand experience, clarify it and give it personal significance. Agina-obu in Oladejo, Olosunde, Ojebisi and Isola (2011), refers to them as learning materials, the proper use of which helps learners to learn faster and better. Similarly, Abdullahi (2007), view them as didactic materials-things which are supposed to make learning and teaching possible while according to Aganga (2007), instructional materials are the collections and selection of resources (mechanical, otherwise) from available resources which are applied and integrated into a systematic process of teaching and learning to make learning effective. Ikerionwu (2007), refers to them as objects or devices, which help the teacher to make a lesson to the learner. Interestingly, instructional materials, therefore are concrete or physical objects which provide sound, visual or both to the sense organs during teaching (Agina-Obu in Nsa,2012).

It based on the above, that Kochhar, (2009) says there are five reasons which might justify the use of instructional materials in teaching and learning process. These are:-

- 1. To teach something more thoroughly so that the students may retain the subject-matter permanently.
- 2. To teach something more quickly. This will result in covering more ground in a given time, and thus give a better chance of getting through the syllabus.
- 3. As a means of creating or sustaining students' interest.
- 4. As a means of integrating a number of separate works already learnt by the students.
- 5. As a means of bringing with the experience and understanding of students something which is new to them.

Abdullahi (1997) points out that there are varieties of ways that a teacher could use instructional materials. These include:

- 1. Introducing a lesson: instructional materials are used to introduce a lesson so as to arouse students' interest. It will also lead to positive change in students' attitude, learning efficiency, retention of learning and reading performance.
- 2. Supporting a lesson: instructional materials can be used to support a lesson especially where the teacher notice loss of interest in the lesson by the students. Thus, students can be motivated by providing them with the experience that is fresh, delightful and varied.
- 3. Drill and practice: instructional materials can be used in drill and practical exercise. Drill provides practice through repetition while practice is helpful in mastering skills.

- 4. Demonstration: demonstration can be used in teaching every subject and at any age level.

  Demonstration via instructional materials is important because it attracts the students and thus motivates them to participate in the lesson.
- 5. Summarizing: instructional materials are used in summarizing a topic that has just been discussed in a class during the previous lesson.

However, the fundamental points to consider when using instructional materials are mentioned by Brown quoted in Kani (2004) include:

- a. The teacher should familiarized himself with the materials and decide exactly how and when the materials should be presented.
- Arrange and position the materials before hand, while equipment and machines should be tested to avoid disappointment.
- c. Make the environment/classroom conducive for the materials. Where audio-aids are to be used, ensure that the environment is free from noise; and where electrical power is needed, ensure a standby alternative.
- d. Provide sufficient background information to the students and inform them of what they are expected to do while and after using the materials.
- e. All materials should be properly and adequately presented. Ensure that they can be seen or heard by everybody in the class.

## 2.2.3 Concept of Academic Achievement

According to Murry (1996) academic achievement or academic performance is the extent to which a student, teacher or institution has achieved their short or long term educational goals. Cumulative GPA and completion of educational benchmarks such as secondary school diplomas and bachelors degrees represent academic achievement.

Academic achievement is commonly measure through examination or continuous assessment but there is no general agreement on how it is best evaluated or which aspect are most important procedure knowledge such as skills or declarative knowledge such as facts furthermore, there are inconclusive results over which individual factors successfully predict academic performance, element such as test anxiety, environment, motivation, and emotions require consideration when developing models of school achievement. Now, schools are receiving money based on its students academic achievements. A school with more academic achievements would receive more money than a school with less academic achievements.

## **Factors Influencing Academic Achievement**

Individual differences in academic performances have been linked to differences in intelligence and personality. Students with higher mental ability as demonstrated by IQ test and those who are higher in conscientiousness (linked to effort and achievement motivation) tend to achieve highly in academic settings.

A recent meta-analysis suggested that mental curiosity (as measured by typical intellectual engagement has an important influence on academic achievement in addition to intelligence and conscientiousness. Children's semi-structured home learning environment when children start first grade. Early academic achievement enhances later academic achievement. Parents academic

socialization in term describing the way parent influence students skills, behavior and attitude toward school. Parent influence students through the environment and discourse parents have with their children. Academic socialization can be influenced by parents' socio economic status. Highly educated parents tends to have mere more stimulating learning environment further, recent research indicates that the relationship quality with parents will influence the development of academic self efficacy among adolescent-aged children, which will in turn affect their academic performance.

Non cognitive factors or skills, are set of attitudes behaviours and strategies that promotes academic and professional success such as academics self efficacy, self control, motivation, expectancy and goal setting theories, emotional intelligence, and determination. To create attention on factors other than those measured by cognitive factors, which are measured by teachers through test and quizzes. Non cognitive skills are increasingly gaining popularity because they provide a better explanation for academic and professional outcomes.

#### 2.3 Theoretical Framework

This study is guided by the constructivist theory of instruction. Formalization of the theory of constructivism 1966 is generally attributed to Piaget 1937, a Swiss psychologist who articulated mechanisms by which knowledge is internalized by learners. He suggested that through processes of accommodation and assimilation, individuals construct new knowledge from their experiences. When individuals assimilate, they incorporate the new experience into an already existing framework without changing that framework. This may occur when individuals' experiences are aligned with their internal representations of the world, but may also occur as a failure to change a faulty understanding; for example, they may not notice events, may

misunderstand input from others, or may decide that an event is a fluke and is, therefore, unimportant as information about the world (Mwalyego, 2014).

According to the theory, accommodation is the process of reframing one's mental representation of the external world to fit new experiences. Accommodation can be understood as the mechanism by which failure leads to learning: when one acts on the expectation that the world operates in one way and it violates one's expectations, one often fail, but by accommodating this new experience and reframing one's model of the way the world works, one learn from the experience of failure, or others' failure (Ernest, 2001 in Twoli, Maundu, Muindi, Kilo and Kithinjo, 2007). According to Floden (2006), constructivism is based on observation and scientific study about how people learn. People construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure she understands the students' preexisting conceptions, and guides the activity to address them and then build on them. Various approaches in teaching and learning derive from constructivist theory. They usually suggest that learning is accomplished best using a hands-on approach. Learners learn by experimentation, and not by being told what will happen, and are left to make their own inferences, discoveries and conclusions.

According to McMahon (2007) the responsibility of learning should reside increasingly on the learner thus emphasis on the importance of teaching learning resources in the learners' environment becomes increasingly important. Learners construct their own understanding and

that they do not simply mirror and reflect what they read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information. The constructivist paradigm views the context in which the learning occurs as central to the learning itself (McMahon, 2007). The learning environment should also be designed to support and challenge the learner's thinking (Vesta, 2007). While it is advocated to give the learner ownership of the problem and solution process, it is not the case that any activity or any solution is adequate. The critical goal is to support the learner in becoming an effective thinker

Implications of the theory to Current Study

This learning theory has direct implications on the teaching practices. Here are some of these implications:

- Instruction and instructional materials must be appropriate to the level of the learners.
   For example, being aware of the learners' learning modes (enactive, iconic, symbolic)
   will help one plan and prepare appropriate materials for instruction according to the difficulty that matches learners' level;
- ii. the teachers must revisit materials/instructional materials to enhance knowledge.

  Building on pre-taught ideas to grasp the full formal concept is of paramount importance according to Bruner;
- iii. instructional Materials must be presented in a sequence giving the learners the opportunity to: a. acquire and construct knowledge b. transform and transfer learning;
- iv. students should be involved in using their prior experiences and structures to learn new knowledge;

- v. Help students to categorize new information in order to enable the students see similarities and differences between items and this can be made possible through the effective utilization of instructional materials/resources;
- vi. teachers should assist learners in building their knowledge. This assistance should fade away as it becomes unnecessary; and
- vii. Teachers should provide feedback that is directed towards intrinsic motivation.

  Grades and competition are not helpful in the learning process. The theories imply that learners must experience success and failure not as reward and punishment, but as information (Mcintyre, Hulan& Layne, 2011).

## 2.4 Review of Empirical Studies

Many empirical researchers have been conducted by various researchers on the teacher qualification and students' achievement of various subjects at various schools within and outside the country and these studies and findings could be of relation to this study in one way or another.

Okobia (2011) explore the Availability and Teachers' Use of Instructional Materials and Resources in the Implementation of Social Studies in Junior Secondary Schools in Edo State, Nigeria. The study is designed to assess the availability and teachers' use of instructional materials and resources in the implementation of junior secondary school social studies curriculum in Edo state. Three research questions were raised and one hypothesis was formulated. A sample of fifty social studies teachers were randomly selected from fifty junior secondary schools in five local government areas of Edo State. Data analysis was carried out using t-test for the hypothesis and simple percentages for questions one and two. The results

showed that instructional materials and resources available were grossly inadequate. It was also observed that there was no difference in the use of instructional materials between specialist social studies teachers and non-specialist teachers.

Ningi (2017) examine the availability and utilization of instructional materials for teaching Islamic studies in junior secondary schools in Kaduna State. The objectives of the study was to explore the extent to which urban and rural teachers utilize instructional materials for teaching of Islamic studies. Descriptive survey was utilized. Out of the total population of five thousand six hundred and eight-three (5,683) Junior Secondary School teachers in Kaduna State, a sample of one hundred and eighty- three (183) Islamic studies teachers were drawn, through the use of purposive and quota sampling technique. The researcher used instrument titled "Assessment of Availability and Utilization of Instructional Materials for teaching Islamic Studies questionnaire for collecting data. The data collected were descriptively analyzed using mean and standard deviation, while the hypotheses were tested using t-test statistical tool. The finding revealed that, Significant difference was found between the responses of male and female teachers on instructional materials available for teaching of Islamic studies in junior secondary schools, Kaduna state; There was no significant difference between the responses of urban and rural teachers on utilization of instructional materials for teaching Islamic Studies in junior secondary schools, Kaduna state; Significant difference did not exist between the responses of urban and rural teachers on relevance of instructional materials in teaching of Islamic Studies in junior secondary schools, Kaduna state; and Significant difference was not found between the responses of male and female teachers on obstacles faced in utilization of instructional materials for teaching of Islamic Studies in junior secondary schools, Kaduna state.

In a related study, Consequently, Uyagu (2009), conducted a research titled: Effects of Instructional Materials" Usage and Teachers" Quality on Students" Academic Performance in sciences in Senior Secondary Schools in Zaria LGA in Kaduna State. The target population was fifteen thousand four hundred and thirty (15,430) senior secondary school students from twentyfour (24) secondary schools in Zaria LGA and one thousand and thirty-three (1,033) teachers. Sample of eighty (80) students was randomly selected with nine (9) teachers. Three (3) null hypotheses and three (3) research questions were formulated to guide the study. t-test statistical tool was used in testing the null hypotheses at 0.05 level of significance. The findings revealed that students performed better when appropriate and improvised materials were made available and utilized in teaching Islamic studies and teachers possessing good qualifications enhanced students' performance in Islamic studies.

Similarly, Ibrahim (2008), carried out a research study titled Effects of Instructional Materials on Students" Performance in Social Studies in selected Secondary Schools in Kano State. The target population was fourteen (14) junior secondary schools out of which eight (8) secondary schools were selected as the sample by simple random sampling. Three (3) null hypotheses were stated which were tested using correlation coefficient test statistics at 0.5 level of significance, and all the three (3) null hypotheses were accepted. The results showed that about 80% of the respondents did not make use of the instructional materials appropriately which had negative effects on the performance of students in Social Studies in j u n i o r Secondary Schools in Kano State.

Olagunju and Abiona (2008), assessed the production and utilization of resources in Biology Education: A Case Study of South West Nigerian Secondary Schools. The study was guided by three (3) research questions and two (2) hypotheses. The study employed descriptive survey

method and 450 teachers from 150 randomly selected secondary schools in Oyo, Ogun, Osun, Lagos and Ondo States were used. Two instruments were prepared, validated and used for collecting data. Chi-square, percentages and t-test statistics were used in data analysis. Three research questions and two hypotheses were addressed and tested. The findings revealed that, Less than average number of teachers produce material resources; Few teachers use microscope, magnifying glasses, preserved specimen, models, quadrat and aquarium and Male teachers" perception of utilization of resources is significantly higher than their female counterparts.

Eya and Ureme (2011) conducted a study on the availability and utilization of instructional materials for social studies in junior secondary schools in Enugu state. The study focused on the availability and utilization of instructional materials for social studies instruction in junior secondary schools in Enugu State. The studies specifically ascertained the extent to which instructional materials for teaching social studies are available and utilized. The instrument used for data collection was questionnaire developed by the researcher. The questionnaire was validated by two experts, one in measurement and evaluation and the other in social studies. An instrument of 29 items was developed. A total of 360 respondents were used for the study. The population for the study was small and considered manageable. There was therefore, no need for sampling. The survey design was adopted for the study. Two research questions guided the study. Means and grand means were used to answer the research questions. The findings reveal among others, that instructional materials for teaching social studies in junior secondary schools in Enugu State were available and also utilized to a low extent.

Osarenren-Osaghae and Irabor (2012), conducted a research on Availability and Adequacy of Human and Material Resources for the Teaching and Learning of Skill-based Courses in Nigeria Public Universities. The study was guided by three (3) objectives and research questions, while two (2) hypotheses were formulated. The population of this study consisted of academic staff and final year students of 2009/2010 academic session in Nigerian Public Universities. The instruments used to collect data were the questionnaire and checklist. The researcher personally visited the ten (10) institutions that were earlier selected through stratified random sampling, and administered questionnaires to the respondents who numbered 1750 but only 1500 were returned. Data was analyzed using the mean statistics, percentage and t-test, the finding amongst other findings was that: the human and material resources on ground for the teaching and learning of skill-based courses in Nigerian Public Universities did not match the minimum standard requirement recommended by the National Universities Commission.

Nwafor and Eze (2014) conducted a study on Availability and Utilization of Instructional Materials in Teaching Basic Science in Selected Secondary Schools IN Abakaliki Education Zone of Ebonyi State. The survey research design was used for the study, population of the study was 92,414. The sample for this study comprised of one hundred students from ten selected junior secondary schools. Structured questionnaire was the instrument used for data collection, and the instrument was face validated by three experts. Three research questions guided the study. The data were analyzed using percentages. The result revealed that onlytwo dimensional instructional materials are available in schools. Other instructional materials e.g. Audio materials, Audio-visual materials are lacking in most schools. The study also revealed that teachers do not improvise instructional materials to facilitate their teaching

Leo, Theola and Fedelia (2016) conducted a study on Availability of Instructional Materials at the Basic Education Level in Enugu Educational Zone of Enugu State, Nigeria. One research question and one hypothesis guided the study. The research question was answered using mean and grand mean ratings, while the hypothesis was tested using t-test statistics at .05 level of

significance and a critical value of 1.96. Descriptive survey research design was adopted for the study, using a researcher developed instrument tagged; availability of instructional materials at the basic education level questionnaire (AIMBELQ). Results of data analysis indicated a little extent of availability of instructional materials at the basic education level in Enugu Education Zone of Enugu State

Suleiman (2014), conducted a study on assessment of availability and utilization of textbooks for teaching and learning English language in senior secondary schools in Kaduna state. This study employs a survey design in the assessment of availability and utilisation of textbooks in teaching and learning English language in Senior Secondary Schools in Kaduna State. The study was guided by three (3) research objectives, questions, hypotheses and basic assumptions. A 23 items questionnaire were used to collect data and in answering the research questions that guided this study. A total population of 265 English language teachers were used for the study. Simple descriptive statistics in form of frequencies and percentages were used to analyse the data to answer the three research questions. The result revealed that Senior Secondary Schools in Kaduna State had inadequate textbooks and learning materials.

Sheu and Ijaiya (2016), examined the influence of resource availability on teachers" job performance in early childhood education. The study was guided by three (3) research questions. Descriptive survey method was employed and the target population of this study consists of all the Head teachers, Assistant Head Teachers, Teachers and Caregivers of public early childhood schools in Kwara State. The multi stage sampling method was adopted. It was discovered that television sets, DVD and cartoon CD, beds/ baby cots, electricity supply and fans were unavailable while resources such as play toys, nursery books, classrooms, chairs, tables, chalkboard, crayons, wash bowl and wall chart were available in all the sampled schools. The

study also revealed that resource availability had a positive significant relationship with teachers" job performance in early childhood schools.

Achimugu (2017) explore the availability and Utilization of Instructional materials for teaching of Chemistry in senior secondary schools. The study focused on the availability and utilization of instructional materials for teaching chemistry in senior secondary schools in Ankpa Local Government Area of Kogi State. Four research questions were posed to guide the study. It adopted descriptive survey design. The sample size comprised of 36 chemistry teachers in 30 secondary schools selected by simple random technique from the total population of 75 secondary schools in Ankpa Local Government Area of Kogi State. Two instruments namely checklist of availability of instructional materials (r = 0.71) and teachers' questionnaire titled utilization and inhibiting factors chemistry questionnaire (r =0.76) were used for data collection. The data obtained were analysed using simple percentage, mean and standard deviation. The results revealed that good number of laboratory equipment and audio instructional materials were available but were not adequately utilized and the audio visual materials were neither available nor utilized for chemistry instruction. It was also found that lack of fund, poor implementation policy, lack of motivation among others were the factors inhibiting effective provision and utilization of instructional materials for chemistry instruction.

## 2.5 Summary and Uniqueness of the Study

This chapter provides conceptual clarification of concepts and terms that are used in the study. The chapter equally covers the theoretical framework upon which the study was based. This was followed by review of related empirical related studies. Under the conceptual framework, the concept of teachers' quality, teaching resources and that of academic achievement were

extensively discussed. This was followed by the theoretical framework of the study in which the constructivist theory of instruction was utilized. The theory premised that through the processes of accommodation and assimilation, individuals construct new knowledge from their experiences.

The uniqueness of the study was garnered after a synthesis of the previous empirical studies which depicted that most of the studies predominantly focused on availability and utilization of teaching resources among teachers. In contrast, this study will explore areas that the previous studies were silent about. Thus, at the core of this research study is examining the availability of teaching resources by social studies teachers. The study seek to explore the extent at which teachers demographics such as gender, qualification and years of experience influences social studies teachers utilization of teaching resources in Kano Metropolis and how such factors influences the academic achievement of students.

#### **CHAPTER THREE**

#### **METHODOLOGY**

#### 3.0 Introduction

The focus of this chapter is to outline the methodology that was employed in conductof the study. Specifically, the chapter represented the research design, population and sample, sampling technique, instruments for data collection, validity of the instrument, reliability of the instrument, data collection procedures and procedure for data analysis.

## 3.1 Research Design

In this study descriptive survey design was used. According to Gray (1981) it involve collection of data in order to test hypothesis or to answer questions concerning the current status of the subject of the study. The design enable one to collect data and to describe in a systematic manner, the characteristics features or facts about a given population. The study investigate the availability and utilization of teaching resources on students' performance in social studies in JSS.

## 3.2 Population of the Study

The population of this study consists of 456 social studies teachers across the 243 junior secondary schools (Upper Basic) in Kano Metropolis with a total number of 45,546 students. The population of students covers all JSS III students that sat for Basic Education Certificate Examination (BECE) in the last three sessions (2015/16, 2016/17, 2017/18 sessions). The population of the study will be heterogeneous. With regards to the teachers, their population will be male and female social studies teachers of different cultural background and having NCE as

their least qualification. The students' population will be boys and girls with age range of 14-16 years old and cut across different cultural, religious and socioeconomic background.

Source (SUBEB 2018)

3.1 Population of the study

Local Government within Metropolis	No. of Upper Basic schools	Number of S. S Teachers
Municipal	45	82
Kumbotso	32	44
Tarauni	16	46
Fagge	20	43
Ungogo	29	56
Dala	25	48
Gwale	22	52
Nassarawa	54	85
Total	243	456

# 3.3 Sample and Sampling Technique

# **3.3.1 Sample**

The sample size of the study consists of 196 social studies teachers that were randomly selected across the 243 junior secondary schools (Upper Basic) in Kano Metropolis. The sample teachers would serve as representative of the entire social studies teachers in Kano Metropolis. The sample size was drawn using table for the determination of sample size developed by Research Advisors (2006).

**Table 3.2 Sample Size** 

Local Government within Metropolis	No. of Upper Basic schools	Number of S. S Teachers
Municipal	29	35
Kumbotso	17	19
Tarauni	12	20
Fagge	13	18
Ungogo	21	24
Dala	13	21
Gwale	17	22
Nassarawa	30	37
Total	152	196

# 3.3.2 Sampling Technique

Multi-stage cluster sampling technique was used to reach at representative schools, teachers and students across the eight local governments that constitutes Kano Metropolis. In cluster sampling, entire natural groups rather than individuals are randomly sampled. Bichi (2004) defined multistage cluster sampling technique as a situation where the target population is divided into clusters, and then further sampling takes place within the clusters until the target individuals are sampled. In line with the above, representative teachers were drawn using simple random sampling across all the Upper Basic School in Kano Metropolis. In each of the randomly selected schools, only social studies teachers were involved in the study. With regards to students' result, one school was sampled across each of the eight local governments that constitute Kano Metropolis. Thus, a total of eight school was sampled out, while students' BECE result on social studies for the last three session was obtained from the respective schools.

#### 3.4 Instrument for Data Collection

A researcher made questionnaire titled "Availability and Utilization of Teaching Resources by JSS social studies teachers in Kano Metropolis" will be used. The developed questionnaire will consist of three sections. Section A of the instrument would consists of teachers'demographic information consisting of gender, qualification and working experience of the teachers. Section B of the instrument will solicits for the availability of teaching resources in schools. The section will consist of 10 items on 3 point rating scale ranging from 1 not available to 3 adequate. Section C of the instrument would solicits questions on social studies teachers' utilization of teaching resources. The section would consist of 10 items on three point points acide ranging from 1 rarely, 2 occasionally and 3 frequently.

Additionally, the researcher would make use of students' Basic Education Certificate Examination (BECE) result on social studies for three sessions (2016/17, 2017/18, 2018/19 sessions). The collected BECE result of the students would be utilized using document analysis.

# 3.5 Validity of the Instrument

To establish the validity of the Questionnaire used in this study, it was presented to the supervisor, being a professor in Faculty of Education, Bayero University Kano, a senior lecturer from cluster of Test and Measurement and a Professor in Psychology who vetted it and final copy produced. This is to ensure that the instrument is free from lapses. The vetted version will be used in the pilot study.

### 3.7 Reliability of the Instrument

In order to test the reliability of the developed instrument, a pilot study was conducted using 12 randomly selected social studies teachers. Obtained responses from the respondents was analyzed using statistical package for social sciences (SPSS) to determine the Cronbach's Alpha reliability coefficient of the instrument. The below tables provides the overall and sub construct reliability coefficient value of the instrument.

Table 1 Overall Reliability of the Instrument

Cronbach's Alpha

Number of

Items

.881 20

Based on the obtained Cronbach's Alpha reliability coefficient of .881, the instrument was found to be reliable. This is because obtained coefficient value of .881 is greater than the minimum required coefficient value of 0.70.

Table 2 Teaching Resource Sub Construct

Cronbach's Alpha	Number of
Items	
.804	10

Based on the obtained Cronbach's Alpha reliability coefficient of .804, the instrument was found to be reliable. This is because obtained coefficient value of .804 is greater than the minimum required coefficient value of 0.70.

Table 3 Utilization of Teaching Resource Sub Construct

Cronbach's Alpha	Number of
Items	
.835	10

Based on the obtained Cronbach's Alpha reliability coefficient of .835, the instrument was found to be reliable. This is because obtained coefficient value of .835 is greater than the minimum required coefficient value of 0.70.

#### 3.8Procedure for Data Collection

Inorder to facilitate the collection of reliable and valid data for research, the researcher will begin by collecting an introductory letter from the Department of Education Bayero University Kano. The introductory letter would be used in gaining access to the educational authorities within the Metropolitan area, school head and teachers. In conducting the research, the researcher would employ the service of one research assistant. On reaching the target schools and respondents, the researcher will explain the purpose of the study and why their cooperation is needed. The research assistance will assist the researcher in the process of distribution and retrieval of the distributed questionnaires. It would approximately take ten minute to fill in the instrument. The introductory letter will be used in obtaining students

social studies result for three previous academic session (2016/17, 2017/18, 2018/19 sessions).

# 3.9 Data Analysis Procedure

The researcher employed descriptive statistical techniques, documentary analysis and inferential statistics of t-test and Analysis of Variance (ANOVA) in analyzing the data collected. The descriptive statistics technique to be use will frequency counts, simple percentage and mean. This would be used in answering research question I, & II, while documentary analysis was used in answering research question III. An independent sample t-test and Analysis of Variance (ANOVA) were used in testing the formulated null hypothesis at 0.05 level of significance.

#### **CHAPTER FOUR**

#### **DATA PRESENTATION AND ANALYSIS**

#### 4.1 Introduction

This chapter provided detail procedures that were involved in analyzing the data. The chapter covers summary of the collected data and answer to research questions. Equally include in the chapter are summary of the major findings and discussions of the findings.

# 4.2 Data Summary

**Table 4.1: Breakdown of study Sample** 

	Frequency	Percentage (%)
Gender		
Male Teachers	123	62.8%
Female Teachers	73	37.2%
	196	100%
Qualification		
M.Ed/ M. Sc. Ed		
B. A. ED/ B. Sc. Ed.	48	24.5%
NCE	132	67.3%
Diploma	16	8.2%
196 100%		
Work Experience		
1-5 years	25	12.8%
6-10 years	107	54.6%
11-15 years	59	30.1%
Above 15 years	5	2.6%
	196	100%

Table 4.1 provided the breakdown of junior secondary school social studies teachers' demographic data. From the table, three demographic data of gender, qualification and work experience were analysed. With regard to teachers' gender, 123 (62.8%) are male teachers while 73 (37.2%) are female teachers. This showed that male teachers are dominant in the study.

On the account of qualification, four different qualifications were included in the questionnaire. compile data indicated that none of the teachers in Upper Basic School in Kano Metropolis hold M. Ed/ M. Sc. Ed as their qualification, while 48 (24.5%) were holders of B.A Ed/ B. Sc. Ed. degree. A total of 132 (67.3%) Upper Basic teachers were found to be holders of NCE while only 16 (8.2%) teachers were holders of diploma. This shows that NCE holder are dominant teachers in Upper Basic Schools in Kano Metropolis.

With regard to work experience, 25 (12.8%) Upper Basic School teachers had one to five years of work experience; 107 (54.6%) teachers had six to 10 years of work experience; 59 (30.1%) teachers had 11 to 15 years of work experience while only 5 (2.6%) teachers had overs 15 years of work experience. This showed that Upper Basic School teachers with six to 10 years of work experience are dominant in Kano Metropolis.

#### **Answering Research Questions.**

Descriptive statistics of frequency count and simple percentage as well as documentary analysis were used in answering research questions.

**Research Question 1**: What is the level of availability of teaching resources in JSS in Kano metropolis?

**Table 4.2: Availability of Teaching Resources** 

Available	Not Adequate	Not Available	Total
F (%)	F (%)	F (%)	
	38 (19.5%)	158 (80.6%)	196 (100%)
	148 (75.5%)	48 (24.5%)	196 (100%)
	42 (21.4%)	154 (78.6%)	196 (100%)
37 (18.9%)	103 (52.6%)	56 (28.6%)	196 (100%)
7 (3.6%)	159 (81.1%)	30 (15.3%)	196 (100%)
17 (8.7%)	133 (67.9%)	46 (23.5%)	196 (100%)
123 (62.8%)	73 (37.2%)		196 (100%)
13 (6.6%)	150 (76.5%)	33 (16.8%)	196 (100%)
127 (64.8%)	69 (35.2%)		196 (100%)
34 (17.3%)	162 (82.7%)		196 (100%)
	 37 (18.9%) 7 (3.6%) 17 (8.7%) 123 (62.8%) 13 (6.6%) 127 (64.8%)	38 (19.5%) 148 (75.5%) 42 (21.4%) 37 (18.9%) 103 (52.6%) 7 (3.6%) 159 (81.1%) 17 (8.7%) 133 (67.9%) 123 (62.8%) 73 (37.2%) 13 (6.6%) 150 (76.5%) 127 (64.8%) 69 (35.2%)	38 (19.5%) 158 (80.6%) 148 (75.5%) 48 (24.5%) 42 (21.4%) 154 (78.6%) 37 (18.9%) 103 (52.6%) 56 (28.6%) 7 (3.6%) 159 (81.1%) 30 (15.3%) 17 (8.7%) 133 (67.9%) 46 (23.5%) 123 (62.8%) 73 (37.2%) 13 (6.6%) 150 (76.5%) 33 (16.8%) 127 (64.8%) 69 (35.2%)

The above table (table 4.2) provided social studies teachers'responses on the availability of teaching resources in their schools. Availability of teaching resources was categorized into three available, not adequate and not available. On the availability of electronic materials (audio, video, audiovisual), none of among the respondents indicated it availability, 38 (19.5%) indicated that they are not adequately provided while 158 (80.6%) teachers showed that they are not available in their schools. With regards to library resources, none of the participant indicated their availability, 148 (75.5%) respondents showed that they not adequately provided while 48 (24.5%) showed that the resources are not available in their schools. Similarly, none of the participant indicated the availability of modules in their schools, 42 (21.4%) respondents indicated that modules are not adequately provided while 154 (78.6%) indicated that the resource are not available in their schools.

With regards to the use of improvised materials, 37 (18.9%) respondents indicated that they are adequately available in their schools, 103 (52.6%) respondents indicated that the resource are not adequately provided while 56 (28.6%) respondents showed that the resource are not available in their schools. On the availability of chalkboard rulers and makers, 7 (3.6%) respondents showed

that they are adequately provided, 159 (81.1%) respondents indicated that they are not adequate while 30 (15.3%) respondents indicated that they are not available in their respective schools. On the provision of charts and maps, 17 (8.7%) respondents were of the view that they are adequately provided in their schools, 133 (67.9%) respondents showed that they are not adequately provided while 46 (23.5%) respondents are of the view that they are not available in their schools. On the other hand, 123 (62.8%) respondents indicated the availability of workable chalkboards in their respective schools, 73 (37.2%) respondents are of the view that workable chalkboards are not adequately provided. With regards to pictures, 13 (6.6%) respondents indicated that they are adequately provided in their schools, 150 (76.5%) respondents showed that they are not adequately provided while only 33 (16.8%) respondents showed that pictures are not available in their schools for teaching purposes. On the adequacy of syllabuses, 127 (64.8%) respondents showed that they are adequately provided with only 69 (35.2%) respondents indicating that they are not adequately provided. With regards to the availability of social studies textbooks, only 34 (17.3%) respondents indicated that they are adequately available while a total of 162 (82.7%) respondents showed that they are not adequately provided in their schools.

From the foregoing, it follows that electronic resource and modules are not available in junior secondary school in Kano Metropolis while library resources, improvised materials, rulers and makers, maps and charts, pictures and lastly textbooks are not adequately provided. On the other hand, there are sound provisions of chalkboard and syllabuses in the schools.

**Research Question 2:** What is the extent at which JSS teachers in Kano Metropolis utilize teaching resources while teaching?

**Table 4.3: Extent of Utilization of Teaching Resources** 

Items	Frequently	Occasionally	Rarely	M	Decision
	F (%)	F (%)	F (%)		
I make use of models in my teaching.		22 (11%)	174 (89%)	1.11	Rejected
I utilizes the available social studies	110 (56%)	74 (38%)	12 (6%)	2.50	Accepted
textbooks in preparing my lessons.					
I usually present my lesson as stipulated in the syllabus.	32 (16%)	133 (58%)	51 (26%)	1.90	Rejected
I make use of pictures to support my lessons.	32 (16%)	84 (43%)	80 (41%)	1.75	Rejected
I often supplement my verbal presentation of ideas with charts and or maps.	2 (1%)	27 (14%)	167 (85%)	1.15	Rejected
I improvise teaching materials to support my lesson.	7 (4%)	62 (32%)	127 (65%)	1.38	Rejected
I utilize the available teaching resources of my school library optimally.	8 (4%)	94 (48%)	94 (48%)	1.56	Rejected
I make use of electronic materials (video, audio and audiovisual) to support my lesson.		35 (18%)	161 (82%)	1.17	Rejected
I utilizes chalk and chalkboard of my school optimally.	155 (79%)	41 (21%)		2.79	Accepted
I make use of chalkboard ruler and makers were necessary.	176 (90%)	20 (10%)		2.89	Accepted

Descriptive statistics of frequency count and simple percentage and Mean were used in examining the extent at which junior secondary school social studies teachers utilizes teaching resources in their classes. From table 4.3, utilization of teaching resources was categorized into frequently used, occasionally used, and rarely used. From the table, social studies teachers were found to fully utilize social studies textbooks (M= 2.50), chalkboard (M= 2.79) and chalkboard ruler and maker (M= 2.89). On the other hand, teaching resources such as models (M= 1.11), strict use of syllabus (M= 1.90), pictures (M= 1.75), charts and maps (M= 1.15), improvised resources (M= 1.38), library resources (M= 1.56) and electronic resources (M= 1.17) were all

found to be not fully utilize by the teachers. This shows that social studies teachers in Kano Metropolis had low level of utilization of teacher resources in their social studies lessons presentation.

**Research Question 3:** What is the level of JSS students' academic achievements in Kano Metropolis?

**Table 4.4: Level students' Academic Achievement** 

Research Question 3: What is the level of JSS students' academic achievements in Kano Metropolis?

Table 4.4: Level students' Academic Achievement

LG	Schools	Yea	A	Grades B	С	D	Е	F	Total
Vyymbotao	CICC VIMPOTCO	2016	:1	1.5	20	200	05	05	240
Kumbotso	GJSS KUMBOTSO	2016	nil	15	20	290	05	05	340
		2017	21	33	200	200	nil	35	299
		2018	05	05	100	199	10	10	301
Tarauni	GGS TARAUNI	2016	15	Nil	55	150	10	15	285
		2017	06	Nil	130	05	50	100	291
		2018	nil	10	200	15	10	61	296
Municipal	GGSS K/NASSARAWA	2016	nil	20	55	301	19	25	420
		2017	2	51	77	177	20	07	377
		2018	nil	02	260	18	30	13	333
Nassarawa	GGSS KAWAJI	2016	23	15	99	55	10	20	222
		2017	15	20	103	13	21	118	387
		2018	03	55	50	57	67	81	334
Gwale	GGSS GWALE	2016	03	Nil	53	45	63	35	201
		2017	11	25	17	125	01	45	224
		2018	19	35	165	40	40	25	324
Dala	GGC DALA	2016	16	25	105	50	30	15	235
		2017	25	16	120	120	19	30	230
		2018	09	Nil	180	50	23	49	311
Ungogo	GSS RIJIYAR ZAKI	2016	11	25	11	30	30	50	257
		2017	23	Nil	101	27	10	31	222
		2018	05	11	99	50	30	20	215
Fagge	GSSKUKAFAGGE	2016	nil	Nil	98	102	50	51	301
20		2017	03	Nil	37	66	105	96	307
		2018	03	06	17	170	102	45	343
	Total	2010	239(3%)	369(5%)	2352(33%)	2355(33%)		982(14%)	
			(- , -)	3 2 2 (2 , 4)	(,-)	= = = (= = / 0)	( / 0	, - ==(- 1/0,	2

Table 4.4 provided documentary analysis of junior secondary school students' academic achievement in social studies (National Values) for three consecutive sessions of 2015/2016, 2016/2017 and 2017/2018 respectively, from the table, a total of 7052 junior secondary school students participated in the Basic Education Certificate Examination (BECE) from eight schools in the periods under study. A breakdown of students' achievement in social studies (National Values) showed that in the sessions under review, out of the 7052 students that participated in the examination, only 239 students which represents 3% of the whole students had A grade; 369 students which represents 5% of the whole students had B grade; 2352 students which represents 33% of the whole students had C grade; 2355 students which represents 33% of the whole students had D grade; 755 students which represents 11% of the whole students had E grade while 982 students which represents 14% of the whole students that sat for the examination had F grade.

From the above, it could be observe that students' academic achievement on social studies (National Values) are characterized as average. This is because of the 7052 students that participated in the exams, only 3% and 5% have A and B grades respectively while 33% of the students had C grade; a whopping 33% of the students with D grade while 11% and 14% of the students had E and F grades respectively. By implication, more than half of the students passed the course though with a lower grades while one fourth of the students fails the course with only 8% of the students with above C grade. Based on the obtained indices, it could be stated that junior secondary school students in Kano metropolis had lower level of academic achievement in social studies (National values).

# **Test of Hypotheses**

The stated null hypotheses were tested using an independent sample t-test and Analysis of Variance (ANOVA) at 0.05 level of significance.

**Hypothesis 1**: There is no significant difference in teachers' utilization of teaching resource on the account of gender.

Table 4.5: Gender Difference in Teaching Resources Utilization

Utilization of T. R.		X	SD		p-valu	e Sig.	Decis	ion
Male Teachers	123	18.35	1.95	.481	194	.631	.05	Accepted
Female Teachers	73	18.21	1.94					

In order to test the null hypothesis that there is no significant difference in teachers' utilization of teaching resource on the account of gender, an independent sample t-test was performed. From Table 4.5, the mean score on teaching resources utilization for each group was M=18.35 for male social studies teachers and M=18.21 for female social studies teachers. The results revealed that the mean score of teaching resources utilization for male social studies teachers (M =18.35, SD=1.95) is not significantly different from that of the mean score on teaching resources utilization for female social studies teachers (M=18.21, SD=1.94) at t-value (t=.481, p=.631, p > .05). Thus, our P value .631 > .05. Based on the obtained result, the stated null hypothesis that there is no significant difference in teachers' utilization of teaching resource on the account of gender was upheld.

**Hypothesis 2:** There is no significant differences in teachers' utilization of teaching resources on the account of qualifications.

Table 4.6: Differences in Teaching Resources Utilization due to Qualification

Qualification	N	Mean	Standard Deviation	
B. A. Ed/ B. Sc. Ed	48	18.72	1.75	
NCE	132	18.31	1.93	
Diploma	16	17.00	2.09	

Table 4.6.1: ANOVA

	Sum of Squares	df Mean Sq	uare F	Sig. Decision
Between Groups	35.888 2	17.944	4.935 .00	8 Accepted
Within Groups	701.744 193	3.636		
Total	737.633 195			

In order to test the null hypothesis that there is no significant differences in teachers' utilization of teaching resources on the account of qualifications, a one-way analysis of variance was performed. From table 4.6, the mean score on utilization of teaching resources due to qualification were (M=18.72, SD= 1.75) for B. A. Ed/ B. Sc. Ed. holders, (M=18.31, SD= 1.93) for NCE holders and (M= 17.00, SD= 2.09) for diploma holders.

Result from the Analysis of Variance table (Table 4.6.1) shows that a statistically significant difference existed across the mean scores on teaching resources utilization due to teachers' qualification in Kano Metropolis. This was based on the obtained result (f= 4.935, p= .008, p < .05). Based on the obtained p value of .008, a statistically significant difference existed in the mean scores of teaching resources utilization due to qualification among junior secondary school social studies teachers in Kano Metropolis.

However, the ANOVA result does not indicate the groups which significantly differ from each other. Thus, post hoc analysis was performed using Turkey's HSD (see Appendix II) test to

determine where the significance lies. Results from the Turkey test shows that the utilization level of teaching resources of B. A. Ed/ B. Sc. Ed holder and that of NCE holder does not significantly differs. However, that of B. A. Ed/ B. Sc. Ed holder and that of NCE holder significantly differs from that of diploma holders. Based on the obtained result, the stated null hypothesis that there is no significant difference in teachers' utilization of teaching resources on the account of qualifications was rejected. The study found that a statistically significant difference existed in the level of teaching resources utilization due to teachers' qualification.

**Hypothesis 3:** There is no significant differences in teachers' utilization of teaching resources on the account of years of work experience.

Table 4.7: Differences in Teaching Resources Utilization due to Work Experience

Work Experience	N	Mean	Standard Deviation
1-5 Years	25	16.001.04	
6-10 Years	107	18.57	1.93
11- 15 Years	59	18.621.59	
Over 15 years 5	20.20	.83	

Table 4.7.1 ANOVA

	Sum of Squares	s df	Mean Squa	re F	Sig.	Decision
Between Groups	164.961	3	54.987	18.436	.000	
Within Groups	572.671	192	2.983			
Total	737.633	195				

In order to test the null hypothesis that there is no significant differences in teachers' utilization of teaching resources on the account of years of work experience, a one-way analysis of variance was performed. From table 4.7, the mean score on utilization of teaching resources due to work experience were (M=16.00, SD= 1.04) for teachers with 1 to 5 years of work experience, (M=18.57, SD= 1.93) for teachers with 6 to 10 years of work experience, (M= 18.62, SD= 1.59) for teachers with 11 to 15 years of work experience and (M= 20.20, SD= .83) for teachers with over 15 years of work experience.

Result from the Analysis of Variance table (Table 4.7.1) shows that a statistically significant difference existed across the mean scores on teaching resources utilization due to teachers' work experience in Kano Metropolis. This was based on the obtained result (f= 18.436, p= .000, p < .05). Based on the obtained p value of .000, a statistically significant difference existed in the mean scores of teaching resources utilization due to work experience among junior secondary school social studies teachers in Kano Metropolis.

However, the ANOVA result does not indicate the groups which significantly differ from each other. Thus, post hoc analysis was performed using Turkey's HSD (see Appendix II) test to determine where the significance lies. Results from the Turkey test shows that the utilization level of teaching resources of teachers with 6 to 10 years of experience, 11 to 15 years of experience and over 15 years of experience significantly differs with that of teachers with 1 to 5 years of experience. Based on the obtained result, the stated null hypothesis that there is no significant differences in teachers' utilization of teaching resources on the account of years of work experiencewas rejected. The study found that a statistically significant difference existed in the level of teaching resources utilization due to teachers' work experience.

# 4.3 Summary of the Findings

- I. The study found that teaching resources are not adequately provided for teachers in junior secondary schools in Kano Metropolis.
- II. It was found that junior secondary school teachers had low level of utilization of teaching resources in Kano Metropolis.
- III. The study revealed that junior secondary school students in Kano Metropolis had low level of academicachievement.
- IV. It was found that junior secondary school teachers' gender has no significant impact on their utilization of teaching resources in Kano Metropolis.
- V. The study revealed that junior secondary school teachers' qualification level had significant impact on their level of utilization of available teaching resources in Kano Metropolis.
- VI. The study revealed junior secondary school teachers' years of experience had significant impact on their level of utilization of available teaching resources in Kano Metropolis.

#### 4.4 Discussion of the Findings

This study explore the availability and utilization of teaching resources by Junior Secondary School social studies teachers in Kano Metropolis. The objectives of the study was to determine the availability of teaching resource and to find out the levels of teachers utilization of the available resources. The study equally sought to examine level of students' academic achievement in social studies (National Values) and to explore whether a significant difference exist in teachers utilization of teaching resources on the account of gender, qualification and years of work experience.

Findings of the study revealed that teaching resources are not adequately provided for teachers in junior secondary schools in Kano Metropolis. This was based on the obtained responses which shows that teachings resources such as electronic (audio, video, audiovisuals) and modules are not available in junior secondary school in Kano Metropolis while library resources, improvised materials, rulers and makers, maps and charts, pictures and lastly textbooks are not adequately provided. However, there was sound provisions of chalkboard and syllabuses in the schools. The findings was in line with the work of Okobia (2011) that explore the Availability and Teachers' Use of Instructional Materials and Resources in the Implementation of Social Studies in Junior Secondary Schools in Edo State, Nigeria. His findings showed that instructional materials and resources available were grossly inadequate. The findings equally corroborated the work of Eya and Ureme (2011) that instructional materials for teaching social studies in junior secondary schools in Enugu State were available and also utilized to a low extent. This confirms Bawa and Saidu (2002) view that schools have not been provided with the recommended instructional materials neither do they have the wherewithal to undertake the numerous field trips and excursions. He further stated that for effective teaching in schools the needed materials have to be provided.

The study found that junior secondary school social studies teachers had low level of utilization of teaching resource. This was based on the obtained result which showed that out of 196 teachers that participated in the study, 142 which represents 72.4% of the study sample had low level of utilization of available teaching resources in their respective schools with only 54 teachers which represents 27.6% of the study sample having high level of utilization of available resources. Based on the obtained figures, the study revealed that junior secondary school teachers in Kano Metropolis had low level of utilization of teaching resources. This was in line

with the work of Ibrahim (2008) who conducted a study on Effects of Instructional Materials on Students' Performance in Social Studies in selected Secondary Schools in Kano State. He found that about 80% of the respondents did not make use of the instructional materials appropriately which had negative effects on the performance of students in Social Studies in junior Secondary Schools in Kano State.

Findings of the study equally revealed that junior secondary school students had low level of academic achievement in social studies (National Values). This was based on the obtained breakdown of students' achievement in the last three consecutive Basic Education Certificate Examination (BECE) in which out of the 7052 junior secondary schools students across the eight selected schools, only 3% and 5% have A and B grades respectively while 33% of the students had C and D grades respectively while 11% and 14% of the students had E and F grades respectively. Based on the obtained figures, it follows that junior secondary school students in Kano Metropolis had low level of academic achievement. This was due to the fact that teaching resources which are vital in teaching and learning are not adequately provided. Garba (2004), affirms that material resources help bridge the gap between reality and the abstract. For effective instructional delivery, the teacher is encouraged and expected to effectively utilize relevant instructional materials. Such materials make the teaching and learning process more interesting, more effective, more lively, appealing to the learner, instructional delivery simpler and easier. Adebule, (2008), maintain that to ensure quality instructional delivery for the benefit of both teacher and learner, basic education requires the appropriate use of a judicious mix of both print, audio, visual, audio-visual and other materials. Similarly, Mapederun (2008), also emphasized that the availability and adequacy of educational resources affect the academic performance positively

The study found that junior secondary school teachers' gender has no significant impact in their utilization of teaching resources. This was based on the obtained result (t= .481, p=.631, p > .05) which depict that teachers' gender has no significant bearing in their ability to fully utilize available teaching resources. Thus, the stated null hypothesis that there is no significant difference in teachers' utilization of teaching resource on the account of gender was upheld.

A statistically significant difference was found in teachers' ability to utilize teaching resources on the account of qualification. Result from the Analysis of Variance (f= 4.935, p= .008, p < .05) showed that teachers significantly differs in their ability to utilize teaching resources due to their qualifications. Further analysis from the post hoc test (See Appendix III) revealed that junior secondary school teachers who hold B. A ED/ B. Sc. Ed and NCE did not significantly differs while they differs with teachers who hold Diploma. This lead to the rejection of the stated null hypothesis. This was in line with the work of Uyagu (2009), who examine the effects of Instructional Materials' Usage and Teachers' Quality on Students' Academic Performance in sciences in Senior Secondary Schools in Zaria LGA in Kaduna State. The result of his study revealed that teachers' possession of good qualifications enhanced students' performance in Islamic studies.

A statistically significant difference was equally found in junior secondary school teachers' ability to utilize teaching resources on the account of work experience. Result from the Analysis of Variance (f= 18.436, p= .000, p < .05) showed that teachers significantly differs in their ability to utilize teaching resources based on their years of work experience. Further analysis from post hoc test (See Appendix III) revealed that teachers 6 to 10 years of experience, 11 to 15 years of experience and over 15 years of experience significantly differs with that of teachers with 1 to 5

years of experience. The lead to the rejection of stated null hypothesis. The findings corroborated the work of Ashioya (2012), in a study on factors affecting effective utilization of instructional materials in secondary schools noted that it is important to know that the teacher as the facilitator must have practical knowledge on using these materials when available and improvise when not readily available. Usman (2007), noted that without the teacher who is knowledgeable, educational material cannot create change and progress.

#### **CHAPTER FIVE**

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents and discusses summary of the study, major findings, conclusion and recommendations based on the findings as revealed by the study, and also suggests areas for further studies.

#### **5.2 Summary**

Chapter of the study is the introduction of the study. The chapter provided a comprehensive background to the study, where it was established that Teachers at all levels of education play the decisive role in pivoting the growth and direction of education and that teachers are mainly instrumental to the success of any educational programme embarked upon by any government. Statement of the research problem, research objectives, research questions and research hypotheses developed, significance of the study as well as scope and delimitation of study were all included in the chapter.

Chapter two covered literature review in which conceptual clarifications were provided. The conceptual framework covers concepts and terms as they are used in the study. This includes aspect of teacher quality, the concept of teaching resources, concept of academic achievement, the objectives of junior secondary education, a brief description of the UBE programme. This was followed by theoretical framework, review of related literature and summary and uniqueness of the study.

Chapter three of the study focused on research methodology and techniques adopted for the study. The chapter consists of research design, population and sample, sampling technique and

instrument for data collection. Equally included in the chapter are validation of the instrument, procedure for data collection and method of data analysis.

Chapter four presents the analysis and interpretation of findings. This was followed by summary of the major findings and discussions of the findings. The summary, conclusion, recommendations and areas of further study are contained in chapter five.

#### **5.3 Conclusions**

Based on the findings from the study, it was concluded that:

- I. Teachers in junior secondary schools of Kano Metropolis are not adequately provided with teaching resources.
- II. Junior secondary school teachers had low level of utilization of teaching resources in Kano Metropolis.
- III. Junior secondary school students in Kano Metropolis had low level of academicachievement.
- IV. Teachers' gender has no significant impact on their utilization of teaching resources in Kano Metropolis.
- V. Teachers' qualification level had significant impact on their level of utilization of available teaching resources in Kano Metropolis.
- VI. Teachers' years of experience had significant impact on their level of utilization of available teaching resources in Kano Metropolis.

#### 5.4 Recommendations

### 5.4.1 Recommendations from the Study

Based on the major findings of the study, the following recommendations were made:

- I. School administrators, educational authorities should as a matter of necessity provide all the necessary teaching resources in our junior secondary schools.
- II. Junior secondary school teachers should be engage in mandatory workshop and training to boost their knowledge of resource utilization and making use of teaching resources should equally be made necessary to teachers.
- III. Teachers should make use of the vast teaching method that would ensure an improvement in students' performance in school.
- IV. An indiscriminate effort should be employed by school administrators to ensure full scale utilization of teaching resources by both male and female teachers.
- V. Teachers of junior secondary schools should be accorded with the opportunity to further their education at least to obtain a first degree. This is because qualification level had impact on teachers' productivity.
- VI. Junior secondary schools should as a matter of necessity be retaining their staff. This is because years of services had an impact on teachers' ability.

#### 5.4.2 Recommendations for Further Studies

- I. A similar study should be conducted to explore availability and utilization of teaching resources by Junior Secondary School teachers in other areas of study.
- II. A similar study should be replicated to explore availability and utilization of teaching resources by Junior Secondary School social studies teachers in other educational zones of Kano state.

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# **Appendix I**

# AVAILABILITY AND UTILIZATION OF TEACHING RESOURCES BY JSS SOCIAL STUDIES TEACHERS IN KANO METROPOLIS.

Department of education,

Bayero University Kano.

Kano State.

Dear Respondent,

The researcher is a master's degree student in Bayero University Kano, conducting a study on the Effect of teacher quality, availability and utilization of teaching resources on JSS students academic achievement in social studies in Kano Metropolis.

Please feel free to give out your opinion as it will be treated for this study only and with confidentiality.

Thanks.

# AVAILABILITY AND UTILIZATION OF TEACHING RESOURCES BY JSS SOCIAL STUDIES TEACHERS IN KANO METROPOLIS.

Section A: Background Information	
1) What is the name of your school?	
2) Gender (a) Male [ ] (b) Female [ ]	
3) Highest teaching qualification.	
a) M.Ed/M.Sc.Ed [ ] (b) B.A Ed/B. Sc Ed [ ] (c) NCE [ ] (d) Diploma [ e) Others Specify [ ]	]
4) Years of teaching experience a) 1 - 5 years [ ] b) 6 - 10 years [ ] c) 11- 15 years [ ] d) over 15 years [	]

# **SECTION B: Availability of Teaching Resource**

Kindly indicate the availability of otherwise or social studies teaching resources in your school.

SN	Statement	Adequate	Not Adequate	Not Available
1	Modules			
2	Social studies textbooks			
3	Syllabus			
4	Pictures			
5	Charts and Maps			
6	Physical features			
7	Improvised materials			
8	Library			
9	Electronics materials (audio, video,			
	computers)			
10	Chalks, chalkboard, chalkboard ruler and			
	makers			

**Section C: Teachers Utilization of Teaching Resources** 

S/N	Teaching resources	Frequently	Occasionally	Rarely
1	I make use of models in my teaching.			
2	I utilizes the available social studies textbooks in preparing my lessons.			
3	I usually present my lesson as stipulated in the syllabus.			
4	I make use of pictures to support my lessons.			
5	I often supplement my verbal presentation of ideas with charts and or maps.			
6	I improvise teaching materials to support my lesson.			
7	I utilize the available teaching resources of my school library optimally.			
8	I make use of electronic materials (video, audio and audiovisual) to support my lesson.			
9	I utilizes chalk and chalkboard of my school optimally.			
10	I make use of chalkboard ruler and makers were necessary.			

# Frequencies

# **Statistics**

		GENDER	QUALIFICATION	EXPERIENCE	
N	Valid	196	196	196	
	Missing	1	1	1	

# Frequency Table

# **GENDER**

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	MALE	123	62.4	62.8	62.8
	FEMALE	73	37.1	37.2	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

# **QUALIFICATION**

	QOALII IOATION									
					Cumulative					
		Frequency	Percent	Valid Percent	Percent					
Valid	B.A ED/ B SC ED	48	24.4	24.5	24.5					
	NCE	132	67.0	67.3	91.8					
	DIPLOMA	16	8.1	8.2	100.0					
	Total	196	99.5	100.0						
Missing	System	1	.5							
Total		197	100.0							

# **EXPERIENCE**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 YRS	25	12.7	12.8	12.8
	6-10 YRS	107	54.3	54.6	67.3
	11-15 YRS	59	29.9	30.1	97.4
	OVER 15 YRS	5	2.5	2.6	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

# Frequencies

# Statistics

-	ATR_MO	ART_SSTEX	ART_SYL	ART_PIC	ART_CHAT	ART	ART_LIB	ART	ART_	ART_C
	DULES	TBOOKS	LABUS	TURES	S_MAPS	_IM	RARY	_EM	ССВ	B_RM
N Vali	196	196	196	196	196	196	196	196	196	196
d										
Mis	1	1	1	1	1	1	1	1	1	1
sing										
Mode	1.00	2.00	3.00	2.00	2.00	2.00	2.00	1.00	3.00	2.00

# Frequency Table

# ATR\_MODULES

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	154	78.2	78.6	78.6
	NOT ADEQUATE	42	21.3	21.4	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

# ART\_SSTEXTBOOKS

61

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT ADEQUATE	162	82.2	82.7	82.7
	ADEQUATE	34	17.3	17.3	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_SYLLABUS

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT ADEQUATE	69	35.0	35.2	35.2
	ADEQUATE	127	64.5	64.8	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_PICTURES

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	33	16.8	16.8	16.8
	NOT ADEQUATE	150	76.1	76.5	93.4
	ADEQUATE	13	6.6	6.6	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_CHATS\_MAPS

					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
Valid	NOT AVAILABLE	46	23.4	23.5	23.5		
	NOT ADEQUATE	133	67.5	67.9	91.3		
	ADEQUATE	17	8.6	8.7	100.0		
	Total	196	99.5	100.0			
Missing	System	1	.5				
Total		197	100.0				

ART\_IM

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	56	28.4	28.6	28.6
	NOT ADEQUATE	103	52.3	52.6	81.1
	ADEQUATE	37	18.8	18.9	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_LIBRARY

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	48	24.4	24.5	24.5
	NOT ADEQUATE	148	75.1	75.5	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_EM

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	158	80.2	80.6	80.6
	NOT ADEQUATE	38	19.3	19.4	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT ADEQUATE	73	37.1	37.2	37.2
	ADEQUATE	123	62.4	62.8	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

ART\_CB\_RM

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	NOT AVAILABLE	30	15.2	15.3	15.3
	NOT ADEQUATE	159	80.7	81.1	96.4
	ADEQUATE	7	3.6	3.6	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

#### **Statistics**

					Otatic						
		UTR1	UTR2	UTR3	UTR4	UTR5	UTR6	UTR7	UTR8	UTR9	UTR10
Ν	Valid	196	196	196	196	196	196	196	196	196	196
	Missing	1	1	1	1	1	1	1	1	1	1
Ме	an	1.1122	2.5000	1.9031	1.7551	1.1582	1.3878	1.5612	1.1786	2.7908	2.8980
Std	. Deviation	.31648	.61185	.64513	.71699	.39287	.55715	.57408	.38397	.40777	.30348

# Frequency Table

UTR1

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	174	88.3	88.8	88.8
	OCCASIONALLY	22	11.2	11.2	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR2

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	12	6.1	6.1	6.1
	OCCASIONALLY	74	37.6	37.8	43.9
	FREQUENTLY	110	55.8	56.1	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR3

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	51	25.9	26.0	26.0
	OCCASIONALLY	113	57.4	57.7	83.7
	FREQUENTLY	32	16.2	16.3	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR4

					Cumulative
		Frequency Percent Valid Percent		Percent	
Valid	RARELY	80	40.6	40.8	40.8
	OCCASIONALLY	84	42.6	42.9	83.7
	FREQUENTLY	32	16.2	16.3	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RARELY	167	84.8	85.2	85.2
	OCCASIONALLY	27	13.7	13.8	99.0
	FREQUENTLY	2	1.0	1.0	100.0
	Total	196	99.5	100.0	100.0
Missing	System	130	.5	100.0	
Total	<i>G</i> <sub>1</sub> <i>G</i> <sub>1</sub> <i>G</i> <sub>1</sub>	197	100.0		

UTR6

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	127	64.5	64.8	64.8
	OCCASIONALLY	62	31.5	31.6	96.4
	FREQUENTLY	7	3.6	3.6	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR7

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	94	47.7	48.0	48.0
	OCCASIONALLY	94	47.7	48.0	95.9
	FREQUENTLY	8	4.1	4.1	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR8

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	RARELY	161	81.7	82.1	82.1
	OCCASIONALLY	35	17.8	17.9	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR9

-					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	OCCASIONALLY	41	20.8	20.9	20.9
	FREQUENTLY	155	78.7	79.1	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

UTR10

				Cumulative	
		Frequency	Percent	Valid Percent	Percent
Valid	OCCASIONALLY	20	10.2	10.2	10.2
	FREQUENTLY	176	89.3	89.8	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

.....

**Statistics** 

LEVEL\_UTILIZATION

N	Valid	196
	Missing	1
Mode		1.00

LEVEL\_UTILIZATION

			_		
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	LOW	142	72.1	72.4	72.4
	HIGH	54	27.4	27.6	100.0
	Total	196	99.5	100.0	
Missing	System	1	.5		
Total		197	100.0		

## T-Test

**Group Statistics** 

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
UTILIZATION_TEACHING_RE	MALE	123	18.3577	1.95075	.17589
SOURCES	FEMALE	73	18.2192	1.94541	.22769

**Independent Samples Test** 

-	mac	ропа	OIII C	umpi	es rest					
		Tes Equ	ene's t for ality							
			of							
		Varia	ance							
			3			t-test	for Equality	y of Means		
									95	5%
									Confid	dence
									Inter	al of
						Sig.		Std.	th	ie
						(2-	Mean	Error	Differ	ence
			Sig			taile	Differen	Differen	Lowe	Uppe
		F		Т	df	d)	ce	ce	r	r
UTILIZATION_TEACHING_RESOU	Equal	.00	.94	.48	194	.631	.13855	.28792	-	.7064
RCES	varianc	5	3	1					.4293	0
	es								1	
	assume									
	d									
	Equal			.48	151.69	.631	.13855	.28772	-	.7070
	varianc			2	2				.4299	0
	es not								1	
	assume									
	d									

ONEWAY UTILIZATION\_TEACHING\_RESOURCES BY QUALIFICATION /STATISTICS DESCRIPTIVES HOMOGENEITY BROWNFORSYTHE /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA(0.05).

## Oneway

#### **Descriptive**

UTILIZATION\_TEACHING\_RESOURCES

					95% Confidence Interval for			
			Std.	Std.	Mean			
	N	Mean	Deviation	Error	Lower Bound	Upper Bound	Minimum	Maximum
B.A ED/ B SC	48	18.7292	1.75935	.25394	18.2183	19.2400	15.00	23.00
ED								
NCE	132	18.3106	1.93455	.16838	17.9775	18.6437	15.00	23.00
DIPLOMA	16	17.0000	2.09762	.52440	15.8823	18.1177	14.00	21.00
Total	196	18.3061	1.94492	.13892	18.0321	18.5801	14.00	23.00

#### **Test of Homogeneity of Variances**

UTILIZATION\_TEACHING\_RESOURCES

Levene Statistic df1		df2	Sig.	
.547	2	193	.579	

#### **ANOVA**

UTILIZATION\_TEACHING\_RESOURCES

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	35.888	2	17.944	4.935	.008
Within Groups	701.744	193	3.636		
Total	737.633	195			

### **Robust Tests of Equality of Means**

UTILIZATION TEACHING RESOURCES

	Statistic <sup>a</sup>	df1	df2	Sig.
Brown-Forsythe	4.722	2	47.495	.013

a. Asymptotically F distributed.

### **Post Hoc Tests**

#### **Multiple Comparisons**

## UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD

(I)	(J)	Mean			95% Confide	ence Interval
QUALIFICATION	QUALIFICATION	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
B.A ED/ B SC ED	NCE	.41856	.32140	.396	3406	1.1777
	DIPLOMA	1.72917*	.55045	.006	.4290	3.0293
NCE	B.A ED/ B SC ED	41856	.32140	.396	-1.1777	.3406
	DIPLOMA	1.31061 <sup>*</sup>	.50477	.027	.1184	2.5028
DIPLOMA	B.A ED/ B SC ED	-1.72917 <sup>*</sup>	.55045	.006	-3.0293	4290
	NCE	-1.31061 <sup>*</sup>	.50477	.027	-2.5028	1184

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

# **Homogeneous Subsets**

#### UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD<sup>a,b</sup>

		Subset for alpha = 0.05		
QUALIFICATION	N	1	2	
DIPLOMA	16	17.0000		
NCE	132		18.3106	
B.A ED/ B SC ED	48		18.7292	
Sig.		1.000	.646	

Means for groups in homogeneous subsets are displayed.

#### UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD<sup>a,b</sup>

Tulkey HOD				
		Subset for alpha = 0.05		
QUALIFICATION	N	1	2	
DIPLOMA	16	17.0000		
NCE	132		18.3106	
B.A ED/ B SC ED	48		18.7292	
Sig.		1.000	.646	

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 33.000.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## Oneway

#### **Descriptive**

#### UTILIZATION TEACHING RESOURCES

					95% Confidence Interval for			
			Std.	Std.	Mean			
	N	Mean	Deviation	Error	Lower Bound	Upper Bound	Minimum	Maximum
1-5 YRS	25	16.0000	1.04083	.20817	15.5704	16.4296	15.00	18.00
6-10 YRS	107	18.5794	1.93302	.18687	18.2089	18.9499	14.00	23.00
11-15 YRS	59	18.6271	1.59631	.20782	18.2111	19.0431	15.00	23.00
OVER 15	5	20.2000	.83666	.37417	19.1611	21.2389	19.00	21.00
YRS								
Total	196	18.3061	1.94492	.13892	18.0321	18.5801	14.00	23.00

#### **Test of Homogeneity of Variances**

UTILIZATION\_TEACHING\_RESOURCES

Levene Statistic	df1	df2	Sig.
5.641	3	192	.001

#### **ANOVA**

## UTILIZATION\_TEACHING\_RESOURCES

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	164.961	3	54.987	18.436	.000
Within Groups	572.671	192	2.983		
Total	737.633	195			

#### **Robust Tests of Equality of Means**

## UTILIZATION\_TEACHING\_RESOURCES

	Statistic <sup>a</sup>	df1	df2	Sig.
Brown-Forsythe	32.313	3	110.712	.000

a. Asymptotically F distributed.

## **Post Hoc Tests**

### **Multiple Comparisons**

#### UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD

	-	Mean			95% Confide	ence Interval
(I) EXPERIENCE	(J) EXPERIENCE	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1-5 YRS	6-10 YRS	-2.57944 <sup>*</sup>	.38364	.000	-3.5737	-1.5852
	11-15 YRS	-2.62712 <sup>*</sup>	.41214	.000	-3.6953	-1.5590
	OVER 15 YRS	-4.20000 <sup>*</sup>	.84607	.000	-6.3927	-2.0073
6-10 YRS	1-5 YRS	2.57944*	.38364	.000	1.5852	3.5737
	11-15 YRS	04768	.28005	.998	7735	.6781
	OVER 15 YRS	-1.62056	.79019	.173	-3.6685	.4274
11-15 YRS	1-5 YRS	2.62712 <sup>*</sup>	.41214	.000	1.5590	3.6953
	6-10 YRS	.04768	.28005	.998	6781	.7735
	OVER 15 YRS	-1.57288	.80442	.209	-3.6577	.5119
OVER 15 YRS	1-5 YRS	4.20000 <sup>*</sup>	.84607	.000	2.0073	6.3927
	6-10 YRS	1.62056	.79019	.173	4274	3.6685
	11-15 YRS	1.57288	.80442	.209	5119	3.6577

#### **Multiple Comparisons**

#### UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD

		Mean			95% Confidence Interval	
(I) EXPERIENCE	(J) EXPERIENCE	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1-5 YRS	6-10 YRS	-2.57944 <sup>*</sup>	.38364	.000	-3.5737	-1.5852
	11-15 YRS	-2.62712 <sup>*</sup>	.41214	.000	-3.6953	-1.5590
	OVER 15 YRS	-4.20000 <sup>*</sup>	.84607	.000	-6.3927	-2.0073
6-10 YRS	1-5 YRS	2.57944 <sup>*</sup>	.38364	.000	1.5852	3.5737
	11-15 YRS	04768	.28005	.998	7735	.6781
	OVER 15 YRS	-1.62056	.79019	.173	-3.6685	.4274
11-15 YRS	1-5 YRS	2.62712 <sup>*</sup>	.41214	.000	1.5590	3.6953
	6-10 YRS	.04768	.28005	.998	6781	.7735
	OVER 15 YRS	-1.57288	.80442	.209	-3.6577	.5119
OVER 15 YRS	1-5 YRS	4.20000 <sup>*</sup>	.84607	.000	2.0073	6.3927
	6-10 YRS	1.62056	.79019	.173	4274	3.6685
	11-15 YRS	1.57288	.80442	.209	5119	3.6577

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

# **Homogeneous Subsets**

#### UTILIZATION\_TEACHING\_RESOURCES

Tukey HSD<sup>a,b</sup>

		Subset for alpha = 0.05		
EXPERIENCE	N	1	2	
1-5 YRS	25	16.0000		
6-10 YRS	107		18.5794	
11-15 YRS	59		18.6271	
OVER 15 YRS	5		20.2000	
Sig.		1.000	.053	

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 15.021.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.