

**AVAILABILITY AND UTILIZATION OF COMPUTER PACKAGES  
IN TEACHING AND LEARNING OF ISLAMIC STUDIES IN  
SECONDARY SCHOOLS IN KADUNA STATE**

**BY**

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FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY,  
ZARIA**

**JANUARY, 2018**

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
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**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
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**DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM  
FACULTY OF EDUCATION  
AHMADU BELLO UNIVERSITY,  
ZARIA**

**JANUARY, 2018**

## **DECLARATION**

I hereby declare that this dissertation entitled “Availability and Utilization Computer Packages in Teaching and Learning of Islamic Studies in Secondary School in Kaduna State” was written by me in the Department of Educational Foundations and Curriculum, Instruction Technology section, under the supervision of Prof. A. K. Tukur and Dr. S. A. Zubairu. No part of this dissertation was previously presented elsewhere, the information derived from the literature has been duly acknowledged.

**Usman, DoreenAyishatu**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

## CERTIFICATION

This dissertation entitled “Availability and Utilization of Computer Packages in Teaching and Learning of Islamic Studies in Secondary Schools in Kaduna State” meets the regulations governing the award of a Master of Education (M.Ed.) in Instructional Technology at Ahmadu Bello University, Zaria Nigeria and is approved for its contribution to Knowledge.

Prof. A.K.Tukur  
Chairman, Supervisory Committee \_\_\_\_\_  
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Dr. S. A.Zubairu  
Member, Supervisory Committee \_\_\_\_\_  
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Signature Date

Prof. S.Z.Abubakar  
Dean, Postgraduate School \_\_\_\_\_  
Signature Date

## **DEDICATION**

This dissertation is solely dedicated to my beloved mother of blessed memories, HajiaAsmauAinodionUsman, who sees the education of a girl-child as a gain in its totality.

## ACKNOWLEDGEMENTS

All glory is to the Almighty God, for the gift of life and sustenance needed to complete my course of study. I sincerely appreciate all members of my lovely family who in one way or the other has contributed to the success of my Master's Degree in Education programme.

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## **ABSTRACT**

This study assessed the availability and utilization of computer packages in teaching and learning of Islamic Studies in secondary schools in Kaduna State. The research work was as a result of ineffective usage of instructional materials in teaching and learning of Islamic Studies by teachers of Islamic Studies because of their inability to interact with the teaching environment such as the use of computers. According to WAEC Chief Examiner's report, this has led to the students' subsequent years of poor performance in the WAEC results of 2012, 2013, 2014 and 2015. Survey research design was used for the study. The sample for the study comprised of 300 students made up of 199 males and 101 females and 46 teachers made up of 31 males and 15 females of Islamic Studies, selected from the three senatorial zones of Kaduna State. Simple random sampling was used to select the number of the students and teachers in the three senatorial zones. A structured questionnaire on the availability and utilization of computer was used for data collection. The instrument was validated by three experts in relevant fields. The pilot study was conducted in two Government Secondary Schools in Katsina State and was part of the target population. Cronbach Alpha was used to determine the reliability of the instrument and a value of 0.81 was obtained. Mean and standard deviation were used to answer the research questions. All hypotheses were tested at 0.05 level of significance using t- test. The findings indicated that, the computer equipment available in the Schools were adequate for teaching and learning of Islamic Studies in Kaduna State's Secondary Schools and were adequately utilized. However, there are many challenges facing the utilization of computers for the teaching and learning of Islamic Studies in Secondary Schools in Kaduna State among which are inadequate computer hardware, poor infrastructural facilities and poor power supply. It was recommended that provision of computer hardware and software be given priority.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background to the Study**

Religion is a social institution of a belief system, a mental complex and a system of worship found in every human society. Religion as a social institution is characterized by its universality, its rituals, its sacredness and its persistence Nseabasi & Oluwabamide (2008) Religion exists in all societies because, it offer answers and some purported solutions to such ultimate questions as why we fail or succeed and why we die (Udo, 2006). Different culture produce vary different systems of religious beliefs but, they all share a common feature, theycentre on a fundamental belief in the supernatural. Religion is the root of formal education in Nigeria (Udo, 2006).

Education has been the pillar upon which all meaningful national developments are built. It is the instrument which sets the pace for growth, development and understanding of issues in their entire ramification (Dalhatu, 2010). For education to be relevant in a society, it has to be effectively taught. And this can only be achieved through the appropriate use of teaching methods, instructional materials and its relevance to the teaching of Islamic Studies. Teaching method is an orderly procedure in which a teacher uses to direct students in the development of knowledge, skills, attitudes and habits (Habila, 2008). Instructional materials are those things which a teacher uses or manipulates in the process of his teaching in order to enhance learning process (Ogunleye, 2004). Dalhatu (2010) defined instructional materials as those hardwares or sets of tools at the disposal of a teacher that help in facilitating teaching and learning and development of knowledge in Secondary Schools.

The development of knowledge, skill, attitude and character is an important function of educational institution known as school; this made Federal Government of Nigeria (FGN, 2004), to emphasize on the need to equip youth with general education and religious knowledge which should be acquired right from Secondary School. Secondary School is the second tier of institution in Nigeria which is designed to prepare individual youth to acquire knowledge of arts, science, skills, attitudes and sound moral character required as graduate at sub-professional level. Secondary Schools give full training intended to prepare students for entry into various discipline subject areas, among which include Islamic Studies (Magaji, 2015).

Islamic Studies is to facilitate the growth of the total personality of man through the training of man's spirit, intellect, rational, self- feelings and bodily senses. In Islam, knowledge without faith and good behaviour is only a partial knowledge or a new kind of ignorance (Yusuf & Umar 2014). Generally, the aims and objectives of Islamic Studies is to develop the whole personality of the individual who is religious, moral, honest, sociable, humble, generous, kind, patient, obedient, tolerant and lenient to all mankind regardless of their social status, tribe, rank, or nationality. The knowledge of Islamic Studies is being taught to the students by the help of a teacher. The teacher as the implementer of any curriculum materials or subject programme has the greatest influence on the teaching and learning process. A teacher is a person who acquired knowledge in a formal training system that equipped them with required pedagogy for effective transmission of knowledge to students, (FGN, 2004). For effective teaching of Islamic Studies to take place, it is considered appropriate that, prospective Islamic teachers interact with teaching environment. At present, most of the teachers of Islamic Studies

emphasized more on the theoretical aspects in the laboratory or classroom with little or no practical due to lack of computer facilities. For a teacher to achieve the objectives of Islamic Studies, the teacher must demonstrate the ability to bring intended learning outcome and show positive attitude towards the use of computer (Patrick, 2013).

Computer is an electronic device for storing and analyzing information fed into it. Paul, Moses and Brandford (2013) sees computer as electronic device that can quickly receive, store, process and retrieve information fed into it. Imahe and Imhonda (2005) defined computer as a machine that aid man in his common and complex businesses in life. Also, computer plays an influential part in accomplishing many pedagogical functions such as measuring and evaluating knowledge, giving feedback, observing activities and performance of students, providing students with motivation and considering individual differences, regulating education level according to existing knowledge and progress of the students and supporting instruction with such materials as graphics, pictures, animation and sound Sahin & Yildirim(2000).Computer has different applications in various fields especially the field of education. It is useful and helpful in the teaching and learning process (Setzer, 2000). Therefore, computer has a great effect upon our educational system as such; teachers should interact with the physical reality of the computer and learn how to use the computer.

The importance of computer as instructional materials in teaching and learning cannot be overemphasized, considering the role it plays if used effectively. In the arts of teaching and learning, computer facilitates active learning among students and it saves teachers time and energy (Dalhat, 2010). Computer is an instructional material which helps the teachers to discharge their duties effectively (Obinna, 2012). Effective

utilization of computer in teaching and learning promotes good retentive memory because, the students see, hear and observe (Dalhat, 2010, Obinna, 2012). Therefore, the rate of remembrance is enhanced. The use of computer cannot be achieved without the availability of the functional computer in the schools ( Jimoh, 2009).

Availability of computer as instructional materials can be referred to as having the required computers in their desired quantity (Obinna, 2012). Digbori-Bestman (2011) defines availability as a state of being sufficient in satisfying the requirements. Ogunleye (2004) defines availability as enough in quantity or a good enough quality for a particular purpose. However, it is essential to equip the school computer laboratory with enough computers as instructional materials for effective teaching and learning to achieve the aim of producing students with sound knowledge, attitudes and characters. Provisions of availability of computer as an instructional material for Islamic Studies teachers are paramount for attainment of Islamic Studies objectives (Dalhat, 2010). Availability for the purpose of this study is the provision of sufficient computers as instructional materials for Islamic teachers in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. Kaduna State is the centre of Northern Nigeria and centre of Islam for coordinating activities of Muslims in Nigeria (Abubakar & Lolo 2014).

The purpose of teaching and learning implies that, the students comprehend and relate what is being presented rather than to memorize it verbatim. Meaningful teaching and learning is expected to be carried out using instructional material such as computer to enhance students' performance and interest in Islamic Studies, which is lacking. This has prompted the need for the research on availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State.

## **1.2 Statement of the Problem**

The Chief Examiner's report of West Africa Examination Council 2012, 2013, 2014 and 2015 statistics showed that, the performances of students in Islamic Studies in external examination is below average especially in Kaduna State and Nigeria in general. The government and the general public blamed the poor performance of Islamic Studies on unqualified teachers employed with little or no teaching methods, lack of appropriate or obsolete instructional materials such as wooden tablets and poor attitude of teachers and learners toward the use of computer in teaching and learning of Islamic Studies, (Diraso, Manabete, Amalo, Mbudai, Arabi and Jaoji, 2013). This has been a source of worry to researchers, teachers, parents and the students themselves. Teachers' use of ineffective instructional materials in teaching Islamic Studies has been found to contribute to this persistent poor achievement in Islamic Studies (Dalhatu, 2010).

There is the need therefore, to explore the effectiveness of other instructional materials to see if they can enhance achievement and interest of learners in learning Islamic Studies. One of such instructional material is the Computer. Computers have been found to be effective in some subjects like history, Christians Religion Studies among others (Ifeakor, 2005).

The above appalling situation in education in Kaduna State especially the Secondary Schools becomes imperative to carry out research on availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State.

### **1.3 Objectives of the Study**

The aim of this study is to assess availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. Specifically, the study seeks to find out the:

- i. Level of teachers and students on the availability of computer equipment for teaching and learning of Islamic Studies in Kaduna State Secondary Schools.
- ii. Level of teachers on the utilization of computer equipment for teaching of Islamic Studies in Kaduna State Secondary Schools.
- iii. Level of students on the utilization of computers for learning of Islamic Studies in Kaduna State Secondary Schools.
- iv. Challenges faced by the teachers in the utilization of computers for teaching of Islamic Studies in Kaduna State Secondary Schools.
- v. Challenges faced by students in the utilization of computers for learning of Islamic Studies in Kaduna State Secondary Schools.

#### **1.4 Research Questions**

The following research questions were raised to guide the study:

- i. What is the difference between the mean opinion score of teachers and students on the level of availability of computer equipment for teaching and learning of Islamic Studies in Kaduna State Secondary Schools?
- ii. What is the difference between the mean opinion score of teachers on the level of utilization of computer equipment for teaching of Islamic Studies in Kaduna State Secondary Schools?
- iii. What is the difference between the mean opinion score of students on the level of utilization of computer equipment for learning of Islamic Studies in Kaduna State Secondary Schools?
- iv. What is the difference between the mean opinion score on the challenges faced by teachers in the utilization of computer in teaching of Islamic Studies in Kaduna State Secondary Schools?
- v. What is the difference between the mean opinion score on challenges faced by the students in the utilization of computer in learning of Islamic Studies in Kaduna State Secondary Schools?

## **1.5 Null Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

Ho<sub>1</sub> There is no significant difference between the mean responses of teachers and students on the level of availability of computer equipment in teaching and learning of Islamic Studies in Kaduna State Secondary Schools.

Ho<sub>2</sub> There is no significant difference between the mean responses of teachers on the level of utilization of computer equipment in teaching of Islamic Studies in Kaduna State Secondary Schools.

Ho<sub>3</sub> There is no significant difference between the mean responses of students on the level of utilization of computer equipment in learning of Islamic Studies in Kaduna State Secondary Schools.

Ho<sub>4</sub> There is no significant difference between the mean responses of the challenges faced by teachers on the utilization of computers in teaching of Islamic Studies in Kaduna State Secondary Schools.

Ho<sub>5</sub> There is no significant difference between the mean responses of the challenges faced by students on the utilization of computers in teaching and learning of Islamic Studies in Kaduna State Secondary Schools.

## **1.6 Basic Assumptions**

In conducting the research work, the Researcher made the following assumptions:

- i. That computers are available in teaching and learning of Islamic Studies in Kaduna State Secondary Schools
- ii. That teachers and students in Secondary Schools in Kaduna State make use of computers in teaching and learning of Islamic Studies
- iii. That the perception of teachers and students toward the use of computers in teaching and learning of Islamic Studies in Kaduna State are positive
- iv. That there is no negative effects in using computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State

## **1.7 Significance of the Study**

The findings of the study would be of immense benefit to the students, teachers, government, curriculum planners and school administrators/principals, department of Islamic Studies, ministry of education, parents and the general society.

The findings of the study would be beneficial to the students, teachers, and parents with the knowledge that would help them to accept the use of computer in teaching and learning of Islamic Studies in Secondary Schools, the teachers would be able to teach the students effectively with the outcome of the findings when computers are provided. The findings of this study would also be of benefit to students and teachers to do away with the old system of rote learning and embrace the new system of innovative technology that is presently practiced by other subject teachers and students. In a similar vein, the school administrators/principals would benefit from the findings of the study to understand the importance of computer in teaching and learning not only to

teaching of concepts in Islamic Studies but, all other subjects that are being taught in the Schools by the teachers concerned, this would enhance teaching and learning in the Schools.

The findings of the study will be significance to the Department of Educational Foundations and Curriculum, especially Instruction Technology section, the study will give them ample privilege to provide computers in the Instructional Technology Laboratory as one of the instructional materials. It would assist the Ministry of Education to take the right measures being the overseer of the government on the secondary schools education, will benefit from the findings of this study to assist them in suggesting the right measures to take in making computers available in secondary schools and supervising their uses by teachers and students. Curriculum Planners would find the recommendations of this study relevant, as it will help them to discover the need to include the use of computer in the School Curriculum.

Also from the findings of the study, parents would appreciate the fact that their children are now being well taught in school with the use of computers. The findings of the study will benefits the larger community and the general public with the knowledge of how to use computer and embrace the computer in teaching and learning of Islamic Studies in School and at home, and more computer business centers would be opened in the community for greater computer literacy and economic development. The society in general stands to benefit in the overall dividends of the good works carried out in this research dissertation because, the students will later pass out of school to either join the labour market, become self-employed or proceed to any tertiary institution to further their education where they will need the computer as their aids for instructions. The research

study is significance because; it will change the society for good and economically develop the country at large.

### **1.8 Scope of the Study**

The study assessed the availability and utilization of computer in teaching and learning of Islamic Studies in Secondary School in Kaduna State. The study is restricted to teachers and Senior Secondary Schools year two students of Islamic Studies in Kaduna State. The study is also restricted to availability and utilization of computers in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State, three senatorial zones comprising of Kaduna North, Kaduna South and Kaduna Central. In each zone, two schools offering Islamic Studies were selected based on gender and geographical locations.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter presents a review of literatures that are related to computer in teaching and learning of Islamic Studies in Secondary Schools. The review was done on conceptual framework, theoretical framework, empirical studies and the summary of the review of related literature.

#### **2.2 Conceptual Framework**

Concept is a distinctive meaning of a term, word or phrase that symbolizes several ideas. Awotunde and Ugodulunwa (2004) defined concept as a medium of organizing knowledge about the world to categorize information. Awotunde and Ugodulunwa (2004) went further to state that, a concept may mean tangible things such as table, chair, stone, book, man, woman among others. Eboh (2009) stated that, concept is an idea, thought or devolution of abstract system of thought by which science investigates, interprets and understands particular segments of reality or phenomena.

According to Lidimma (2011) a framework is the structure of ideas and how they arrange to give functional meaning to an event. Conceptual framework according to Eboh (2009) is a schematic description and illustration of the causative mechanism and relationship deducible from the research problems. It can be in the form of diagrammatic representation of the testable argument of the research. It also spells out the context and form of relationship or interactions between phenomena. Conceptual framework is a tool for identifying what the Researcher would observe, how the Researcher would observe and what the Researcher would place on various possible observations.

### **2.3 Religion and Islamic Studies**

Religion is a social institution, a belief system, a mental complex and a system of worship found in every human society. Nseabasi and Oluwabamide (2008) stated that, religion as a social institution is characterized by its universality, its rituals, its sacredness and its persistence. Religion exists in all societies because, it offers answers and some purported solutions to such ultimate questions as, why we fail or succeed and why we die (Udo 2006). Different cultures produce vary different systems of religious beliefs but, they all share a common feature, they centre on a fundamental belief in the supernatural. Islamic Study according to Yusuf and Umar (2014) is to facilitate the growth of the total personality of man through the training of man's spirit, intellect, rational, self-feelings and bodily senses. Yusuf and Umar (2014) stated that in Islam, knowledge without faith and good behavior is only a partial knowledge or a new kind of ignorance. As Shika (2008) asserts, social order in Islam is based on unity, equality and fraternity. Shika (2008) further stated that, Islamic curriculum for social change should aim at building a society of good, pious and God fearing individuals where social justices prevails, a society where tolerance, brotherhood, love, mercy, goodness and righteousness are predominant and a society based on mutual consultation and the maximum exploitation of the individuals intellectual capacity. It also aim at building a society where individuals enjoy freedom of thought and it's competent to take responsibility and a society where individuals can live an ideal, pure and happy life.

Generally, the aims and objectives of Islamic Studies is to develop the whole personality of the individual who is religious, moral, honest, sociable, humble, generous, kind, patient, obedient, tolerant and lenient to all mankind regardless of their social

status, tribe, rank, or nationality. This is as Yusuf and Umar (2014) posited that, the ultimate aim of Muslim (Islamic) Studies lies in the realization of complete submission to Allah on the level of the individual, the community and humanity at large. Abubakar, (2014) sees Islamic Religious Studies as a process of physical, mental, intellectual and spiritual training. It aims at producing well disciplined, highly skillful and responsible human being who know their rights and accepts their duties and responsibilities; human beings who, by virtue of their proper Islamic education, can claim their rights without denying other's rights and who at the same time, prepare to discharge their duties properly and in the best interest of their society. For any society to achieve its aims and objectives, its philosophy must stress the issues of religious education. Kaitah, (2008) consider religion and Islamic (Religious) Studies inclusive as one of the strong agents of change in the attitude, behaviour and culture of man.

#### **2.4 Concepts of Computer**

Before the development of computer system, people used typewriter machine for word processing such as typing their letters, reports, projects and memo with the use of duplicating machine for producing large copies. This method has a lot of time consuming; it involved more manpower and lack of neatness. Today hundreds of thousands of people use computer every day for word processing in place of typewriting machine. The purpose of computer as instructional materials is to promote efficiency of education by improving the quality of teaching and learning. Incorporating these tools and materials present support and reinforces teaching (Tukur, 2012). Aduwa, Ogiegbaen & Imogie (2005) stated that, these materials and resources includes; audio tape recorders, slide projectors, opaque projectors, overhead projectors, still pictures, programmed

instruction, film strips, maps, charts, graphs and many more offer a variety of learning experiences individually or in combination to meet different teaching and learning experience. Jimoh, (2009) ordinary words or verbalization has been found to be inadequate for effective teaching, Instructional materials serve as a channel through which message, information, ideas and knowledge are disseminated more easily, they can therefore be manipulated, seen, heard, felt or talked about. These materials facilitate activities and they are anything, or anybody, or the teacher turns to for help in learning process. Aduwa, Ogiegbaen & Imogie, (2005) refers to instructional materials as objects or devices which help the teacher to make learning meaningful to the learners. If properly and creatively used, instructional media can provide us with opportunities to enhance the teaching and learning experiences in our environment. The role of media in allowing flexibility in learning is provided by clear materials—print and audio visual which are attractive alternatives to the routine of lecture. Flexibility is enhanced when alternative to teacher talk are available (NOUN, 2008).

Several decades ago, worldwide communication of information instantaneously was not so, communication technology has vastly increased our exposure to information and experience. Most media have implications for education that are only now beginning to be fully understood and appreciated. In fact, there is now the pervasiveness of mass media. There are more magazines; newspapers and books, there are more programmes on radio and television, as well as programmes on computer. Modern communication technology is now part and parcel of the learning situation. An important mark of modern educational practice is the recognition of the need to provide teachers with the state of arts knowledge of teaching. This mean teacher will be introduced to the variety of

Information and Communication Technology (ICT) waves and intelligent application of them in the teaching and learning situation (Tukur, 2012). As we are in the computer age, there is the need for every organization, either Government or Non-governmental organizations, individuals, primary, secondary and higher institutions to embrace the use of computers in our day today activities as there is no profession today in which computer is not applicable depending on how it can be applied (Giwa, 2000).

When students are given the chance to learn through more senses than one, they can learn faster and easier. The use of instructional materials in which computer is one, provides the teacher with interesting and compelling platforms for conveying information since they motivate students to learn more and the teacher is assisted in overcoming physical difficulties that could have hindered his effective presentation of a given topic (Kumar, 2008). Jimoh (2009) noted that, the use of electronically mediated instruction to duplicate the traditional face to face classroom has resulted in a shift from teacher to student centered classes. In this situation, the responsibility for learning is shifted to the students. The teacher facilitates the learning by acting as a coach, resource guide and companion in learning. The use of computer as instructional media does not only encourage teachers and students to work collaboratively but, it also results in more cooperative learning activities among the students.

## **2.5 History of Computer**

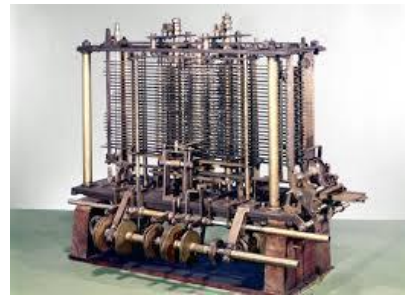
The History of computer came, about with the efforts of the following pioneers towards the development of computer systems;BlaisePascal, Charles Babbage, Lady Ada Lovelace, Dr. Herman Hollerith, Dr. John Vincent Atanasoff and John Von Neumann.History of computer started with the employment of counting devices such as

stones, sticks, seeds and the use of charcoal to make marks on the wall or stone. Such counting devices are called elementary methods of counting system. Abacus was the first widely recognized calculating device (Manual) efficient only for the performance of addition and subtraction operations.**source:** Computer fundamentals for beginners.



Blaise Pascal was from France and a mathematician. At the age of 19, he was the first to produce an adding machine known as adding calculator in 1642. For this reason, Blaise Pascal became known as the father of calculators.(Wikipedia,2017).

[https://en.wikipedia.org/wiki/Blaise\\_Pascal](https://en.wikipedia.org/wiki/Blaise_Pascal)

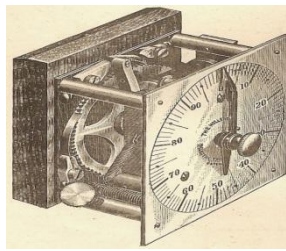


Charles Babbage, an English man and a professor of mathematics at Cambridge University London. He developed an idea that led to the making of STEAM POWER machine (analytical engine) in 1822, which served for solving powerful calculations. Charles Babbage steam power calculator performs addition, division, multiplication and subtraction operations. All these certainly, made Babbage's calculator a lot better than Blaise Pascal calculator. As such, Charles Babbage came to be known as the father of computer. [www.cbi.umn.edu/about/babbage.html](http://www.cbi.umn.edu/about/babbage.html)



Lady Ada Lovelace was a lady mathematician and a friend to Charles Babbage. She assisted Charles Babbage in developing problems to test Babbage machine. She was the first world computer programmer and her work influenced the thinking of one of World War II's greatest minds. Also, she was fondly called the mother of computers.

<https://www.sdsc.edu/ScienceWomen/lovelace.html> (Wikipedia, 2017).



Dr. Herman Hollerith was a statistician, who at the age of 25 developed a tabulating machine called census computer machine which was used for United States 1890 census. He invented the first basic input medium called punched card. In addition, the machine can be used for sorting, arranging and printing of various results. [www.hnf.de](http://www.hnf.de). [Paderborn](#): Heinz Nixdorf MuseumsForum. 18 Apr 2012. (Wikipedia, 2017) Retrieved 28 Feb 2014

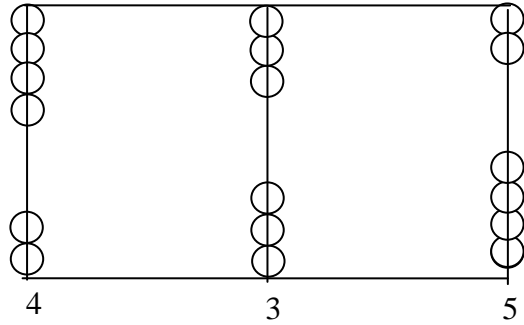


Dr. John Vincent Atanasoff was a Professor of mathematics and physics at Iowa State University. In 1937, he developed a calculating machine with the assistance of a student called Clifford Berry. Atanasoff and Berry developed a more powerful machine called ABC (Atanasoff Berry Computer), the first digital computer which was finally produced in 1940. Hollar, John (January 27, 2011). [\*Revolutionaries: The Man Who Invented the Computer with Author Jane Smiley. YouTube\*](#) (video). Mountain View, California: [\*Computer History Museum\*](#). Retrieved 2015-06-04. (Wikipedia, 2017).

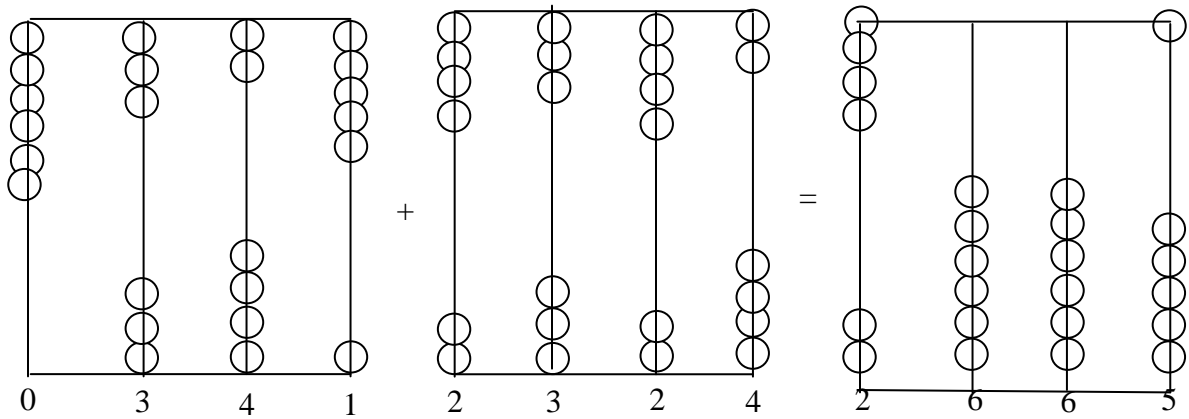


John Von Neumann: In 1945 he improved on Atanasoff machine by introducing the principles of computer to store program, process data and produce information in digital forms (0 or 1). Other people that contributed to the development of computer system are as follows: Leibniz Reckoner; Jacquard Marie Joseph; Boole's Logic; Vannevar Bush; Dr. Howard Aiken among others. The history of computer is usually linked with man's attempt to improve his country by developing calculating aids. Computer resulted from man's quest to improve his calculating ability. Though the development of modern computer is relatively recent, man's quest for aid to calculation

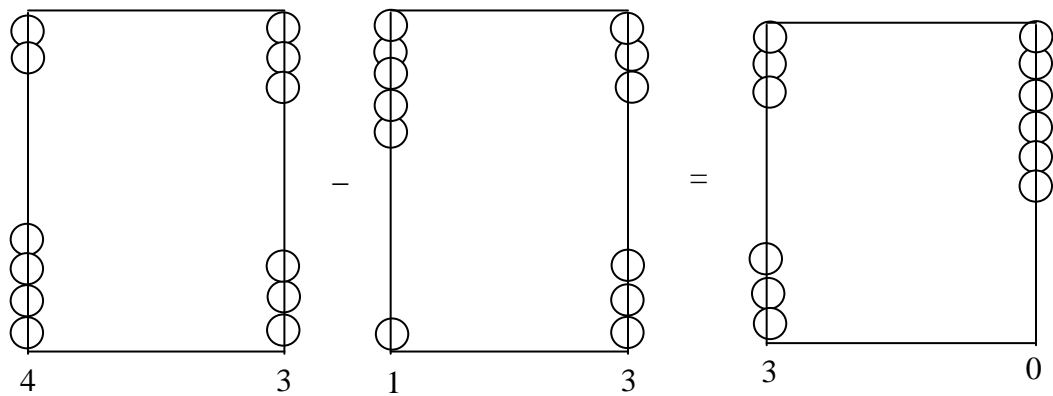
dated as far back as the seventh century BC. The abacus, a mechanical pebble counter was invented in China at about 450BC and used by merchants for arithmetic purposes. Blaise Pascal, a French Mathematician in 1642 developed an arithmetic machine that was capable of performing addition and subtraction effectively, while multiplication and division were done as repeated addition and subtraction respectively. <https://www.britannica.com/biography/John-von-Neumann> (Wikipedia, 2017).



Abacus Device



Abacus Addition



Abacus Subtraction

Another Frenchman that contributed immensely to the idea of stored instructions was Joseph Marie Jacquard 1801-1804, a weaver. With carrels punched with holes, he was

able to store various patterns that could be reproduced with accuracy to facilitate the production of textile materials. In 1822, the father of computers Charles Babbage, developed the difference engine and proposed to build a larger and more powerful machine, the analytical engine, his death at the early age of 37 forestalled further works on the analytical engine. However, based on his designs, further work on programmed instruction was possible. [\(www.computinghistory.org.uk/det/19901/Joseph-Marie-Jacquard\)](http://www.computinghistory.org.uk/det/19901/Joseph-Marie-Jacquard).(Wikipedia,2017).

Between 1847 and 1854, George Boole, an English logician made commendable contribution to the development of computer logic. He devised the Boolean algebra, an algebraic system for representing and manipulating logical expression. Following the United States census in 1880, Dr. Herman Hollerith embarked on a venture to develop a device that could aid the processing of census figures and enable the census bureau complete the task before the next census slated for 1890. Using punched cards and devices for sensing the holes, he developed the tabulators for sorting of cards. This enable the bureau complete its task in three years as against the seven years previously recorded. Dr. Hollerith later formed his own company, “The computing tabulating Recording Company” which eventually merged with two other companies to form “International Business Machine (IBM) Corporation”, a great name in the computer industry today. The struggle to construct a purely electronic machine continued in different parts of the world. In USA Professor Aiken in a joint venture with IBM produced the Automatic Sequence Controlled Calculator (ASCC) commonly called Mark – I in 1944. This was used until 1959. [www.storyofmathematics.com/19th\\_boole.html](http://www.storyofmathematics.com/19th_boole.html)(Wikipedia, 2017).

In Germany, Konrad Zuse produced the Z3 and Z4 special purpose electronic valve based machines. These used the idea of stored programs to perform calculations.

However, the first general purpose electronic computer was built in 1946 by Dr. John Mauchly and Presper Eckert in conjunction with the developers of “Atanasoff Berry Computer” (ABC), a special purpose computer. The machine was called Electronic Numerical Integrator and Calculator (ENIAC). ENIAC was not without shortcomings among which was the inability to store programs along with the data processed. ENIAC was 100 feet long, 10 feet high and weighed 30 tones. ENIAC could calculate what would take a man 12 hours with a calculator in just 30 seconds but, it takes hours to program even small amount of information on it. ENIAC used 18,000 Vacuum tubes to handle the calculations that are now performed by tiny microchips. By the time ENIAC was turned off for the last time in the fall of 1955, its creators had a new faster and far more flexible computer called Universal Automatic Computer (UNIVAC). Students at the University of Pennsylvania with the help of modern technology have shrunk ENIAC’s 19,000 vacuum tubes and 70,000 resistors into a tiny microchip that can stimulate every ENIAC’s functions on today’s computer. **Source:**Edoho,( 1999). Easy way to computer

## **2.6 Availability of Computer in Teaching and Learning of Islamic Studies**

Computers are materials required for teaching and learning of Islamic Studies. Diraso, et al (2013) held the view that, inadequate or lack of computer laboratory, equipped classrooms, printers, photocopiers, projectors, CD ROM and consumable materials contribute to ineffective teaching and learning of Islamic Studies in Secondary Schools, also the provision and availability of the relevant teaching and equipment becomes necessary. Indeed teaching of Islamic Studies cannot be relevant without these instructional materials. Okwori (2012) stated that, the availability and use of computers

are important, since working experience, qualification background of teachers can only be completed when the right and appropriate computers are utilized in teaching of Islamic Studies. Okwori (2012) explains that, Islamic Studies is expected to be adequately and sufficiently provided with instructional materials. Where the instructional materials are not available or inadequate, effective instruction may not take place. Umunadi (2010) further explain that, teaching with instructional materials helps to stimulate interest and ensure mobility and continuity in teaching and learning process. However, these instructional materials such as computers when optimally utilized, generates greater students' interest in the learning system and enhance retention of ideas. The purpose of instructional materials is to promote efficiency of education by improving the quality of teaching and learning. Incorporating these tools and materials present, support and reinforces teaching. Aduwa,Ogiegbaen & Imogie, (2005) stated that, instructional materials includes; computer,audio tape recorders, video tape recorders, slide projectors, opaque projectors, overhead projectors, still pictures, programmed instruction, film-strips, maps, charts, graphs, CD-ROMs and many more offer a variety of learning experiences individually or in combination to meet different teaching and learning experiences.

Jimoh (2009) noted that, ordinary words or verbalization has been found to be inadequate for effective teaching. Instructional materials serve as a channel through which message, information, ideas and knowledge are disseminated more easily. They can therefore be manipulated, seen, heard, felt or talked about. These materials facilitate activities and they are anything or anybody the teacher turns to for help in learning

process. Umar & Ma'aji (2003) pointed out that, learning would be less meaningful without the use of instructional materials such as computer.

Computer is an electronic device for storing and analyzing information fed into it. Poul, Moses & Brandford (2013) sees computer as an electronic devices that can quickly receive, store, process and retrieve information garbage into it. Imahe (2005) defined computer as a machine that aid man in his common and complex businesses in life. Also, computer playsan influential part in accomplishing many pedagogical functions such as measuring and evaluating knowledge and giving feedback, observing activities and performance of students, being independent from time and environment, providing students with motivation and participation to the lesson, considering individual differences. Computer is a machine that receivesstores, processes information or data very quickly according to a stored programme. It could be understood as an electronic device which can hold vast quantities of information and accurately stores information for use. Computer is also an automatic machine which is capable of receiving and processing input calculations according to a predetermined set of instructions. Computers appear in variety of forms, shapes and sizes and they are classified according to physical size and modes ofoperation (Poul, Moses & Brandford, 2013).

In terms of physical size, there are: Super computers,mainframe computers, minicomputers and microcomputers. In terms of modes of operation, there are analoguecomputers, digitalcomputers and hybrid computers. Analogue computers measure changes or signals continuously in physical variables such as voltage, rotation and resistance. Examples are: Thermometer which calculates and represents the changes in temperature of a volume of liquid; and the electric meter which calculates and

represents the quantity of electricity used or consumed through the numbers on a dial. Digital computers represent data by means of numbers, characters, and symbols these include; ABACUS- the first digital computer, logarithm tables, slide rule, and in contemporary times, the calculator.

Digital computers process information that are concerned with signals which are either “on” or “off” with no intermediate values. Example; the “on” or “off” levels are defined and unchanging, these are; calculator, digital telephone and digitized television to mention just a few ( Poul, Moses & Brandford, 2013). Hybrid computer is a go-between in the sense that, it handles both the analogue and digital signals. Other computers include; desktop, laptop, palmtop and notebook computers, personal computers; portable handheld computers, business and home computers (Obinna, 2012). Computer is an electronic machine used to present an instructional programme to the students through an interactive process on the computer (Odera, 2011). It is students centered and activity oriented. There are two major types of packages in computer instruction namely: The ready off-the-shelf package and the customized self-developed application. The former generally refer to commercially produced educational software which have been prepared with all possible users queries in mind. These are stored in Compact Disc Read Only Memory (CD-ROM) (Ifeakor, 2005).

The origin of CD-ROM database can be traced to 1978 when Philips (the renowned computer wizard) launched the computer disc audio system. Since then, compact disc has been an indispensable device for storing and playing stereo music. With the advent of personal computers (PCs), people have started looking for ways of using the compact disc to maximize data storage and processing capabilities of computers. This

search led to the introduction of twomodes for storing in 1985: text, compressed images and programmes on CD-ROM. Later, the international standards organizationbrought out ISO9660 as a standard file format to guide system developers in the area of CD-ROM development. CD ROM is like a stereo CompactDisc (CD). However, a CD-ROM contains both the CD audiofiles found in stereo CD and the computer audio files (Obinna, 2012).

The first CD-ROM used on personal computers was theRead Only Memory type. It was a play-back only storagedevice. Today, there is Write-Once Read-Many (WORM) CD-ROMs.These are modern CD ROMs. Also,some modern CDROMsare multisessional. A multisessional disk can be writtenon many times, for instance, a multisessional photo CD can record image files at different times.Many software manufacturers according to Gambari, Kutigi& Fagbemi (2014) are taking advantage of the large memory capacity ofCD-ROMs to develop integrated software packages as well as topack on one CD large quantities of data including volumes of text, animation and sound for teaching and learning. An application programme thatwould take many floppy diskettes is now contained in one CDalong with its files. There are hundreds of CD-ROM titles in themarket. Some computer companies give a number of thesetitles free to anybody who buys from them a multimedia system or CD-ROMs drives. CD-ROM titles cover tutorial, games, adventures, atlases, encyclopedias and many others that can be used in teaching and learning of Islamic Studies. CD-ROM titles cover different aspects of life, some of thecommon titles are Microsoft Encarta which is an encyclopedia, Microsoft Dinosaurs; 20th century video Almanac.

## 2.7 Characteristics of Computer

Computer being a graphic user interface, provide a wide range of additional features that can prove to be more effective for self-learning materials (SLM). Computer used in teaching and learning has the following characteristics:

**Interactivity:** Asking the learner to perform tasks during the package, keeps him alert and attentive. It prevents him from getting bored. Immediate feedback is given. The learner is asked to select the correct answer. As soon as he responds, he is given feedback. The correct and wrong answers are shown. The wrong answer is in a faded colour whereas the correct answer is in bold colours also; some additional information about the question asked is supplied. This helps the learner to form a pictorial image of the answer in his mind. If the response of the learner is incorrect, he is then asked to try again, till he gives the correct answer. Encouraging words such as “very good!” or “you did it correctly” are used to increase the morale of the learner and to motivate him to learn further. Reinforcement in the form of repetition of the important points helps in better understanding of the subject matter. Time bound activities are also given which make learning more fun, engaging, involving and interesting.**Source:** Silent thoughts Blog roll (2008).

**Language:** The learner is usually alone while using the package. Isolated learning can tend to be boring and the learner may eventually lose interest in the package. Hence, it is necessary that the language be very interesting that would attract the attention of the learner and encourage him to learn further. Active sentence patterns are used instead of using passive formats. Active voice brings about subjectivity and a sense of belonging. It avoids the formal pattern of instruction and the learner does not feel isolated and

insecure. Words such as “let us now study” or “we already know” are used which give the feeling to the learner that he is not alone in the process and the instructor is very friendly to him. Sentences are short, simple and small. They are easy to understand, conversational language is used, to which the learner feels as if the narrator is speaking to him. This motivates the learner. **Source:** Silent thoughts Blog roll (2008).

**Use of a Narrator:** Many times, a graphic narrator is shown which does the job of narrating the topic or the content and usually guides the learner through the entire package. Narrators directly converse with the learner and explain how to use the package. It may sometimes appear as if the graphic narrator is teaching the learner or he is learning along with the learner. This narrator gives a sense of some virtual guide, helping the learner through the process of learning. **Source:** Silent thoughts Blog roll (2008).

**Content Treatment:** The content is structured into small chunks, sections and units. The learner thus gets a whole picture of the content that he is going to learn in the package. The programmer beforehand decides upon the inter-relation and inter-dependence of the components and accordingly places the material in a sequential order or non-linear manner. The learner has the freedom to go through any topic at any point in time according to his choice, he could go back to any topic, which he feels to revisit or relearn, important concepts and definitions among others are emphasized upon. The objectives behind each sub unit are mentioned, upon the objectives, there are some inbuilt activities that the learner has to perform, and such activities are given so that learner knows whether the concepts are clear to him or he needs to learn it again. Inbuilt activities may include games with scores, true or false questions and multiple choice questions among others. Step by step, each topic is taught and at the end of each topic, there are questions

based upon it. Thus, the learner is able to keep his own score and maintain his own level of learning. **Source:** Silent thoughts Blog roll (2008).

**Multimedia:** Multimedia includes the use of sounds, graphics, animations, motion to any animations, films clips and various other features. All such features have made the computer packages very interesting, the eye catches any motion and it is easier to grasp attention. It is very interesting to watch a graphic animation performing the unexciting chemical equations or drawing some tedious geometrical figures, if there are any funny sounds in the background then, all such boring lesson become fun and frolic. Thus, apart from learning, such activities become amusement games for the learner. This keeps the learner motivated and he does not feel as if he is studying some difficult chapter. When there are some definitions to be learnt, sound clip can be added to the text, which would make a double impact on the brain and the learner is able to remember the definition by visual as well as auditory mode. **Source:** Silent thoughts Blog roll (2008).

**User-Friendly Layout:** The package first introduces the topic to the learner. The introduction may be based upon some previously known events or some situations that are familiar to the learner. The introduction through familiar topics leads to the main subject to be learned, after the introduction, the user comes to the first page or the homepage. This page contains link to all sub-units and sub-sections. When the components are independent of each other, the learner may opt for any sub-unit of his choice. Each page in the package has buttons that go to the homepage, next page, previous page or exit from the package. This is very convenient for the learner as he can go back to any unit and look up for information. If the learner feels that he has sufficient knowledge about a particular unit, then he may go directly to the homepage and start

some other unit. These choices make the package very user friendly. The learner sets the pace of learning. Once all the content is loaded on a frame, it stops and remains static on the screen, until it receives any response from the learner, it does not go to the next frame. If there is any information on a particular frame then, there will be provision of a “next button” to go to the next frame. If there is a question asked then either the learner has to click on the correct answer or choose from the options or type in their feedback. When either one of these is done, only then the frame goes further. Thus, the learner can look and read from the frame for as much time as he wants, finally when he is sure that he has understood everything, he may proceed further.

Whenever any graphic is used, for example, in any historical monument, information about the monument is given at its side. The learner is asked to point out some part of it or type the name of a particular part. This type of situation will never occur in books. When one actually sees the image or a real picture of any monument or any object, it helps in better understanding. It creates a photogenic memory that is easier to recall and it fits permanently in the mind, for example, if a package is instructing about the various sounds made by various animals, then the learner will be able to associate the picture of an animal along with the sound provided in the package. It would get fixated in the minds of learner. This would obviously make it easier than the normal textbook learning. **Source:** Silent thoughts Blog roll (2008).

## **2.8 Uses of Computer in Teaching and Learning of Islamic Studies**

Education is in the process of witnessing a paradigm shift from learning using teacher centered approach to student centered approach (Yakubu,2004).The student centered approach looks at knowledge increasingly as a valorize commodity, the role of

the educational process is to enable people acquire knowledge, skills, attitude and character that can be marketed. Computers are an integral part of this paradigm shift specifically information technology is increasingly integrated into the educational process and looks as an element in the valorization of knowledge. In education, computer plays a fundamental role in both instruction and the learning process. Computer plays a significant role as an aid to instruction in the development and presentation of course contents. The use of computer offers wider and richer sources of content material and easier ways of manipulating packaging and presenting the materials. The internet presents a vast opportunity for sourcing both free and paid content for Islamic Studies courses. With the computer, it is also easier to source materials from text books, by scanning and manipulating them, making them ready for inclusion as content using programmes such as Microsoft Word, Microsoft Power Point and Director, it is both easier to package a presentation as well as include more advanced instructional tools such as digital video and 3-dimensional simulations for more enhance experience of contents. Even basic photographs when used in computer presentation can be presented in a larger number and in clear form with commentaries. In recent times, critical opinion has appeared concerning the use of computers in primary and Secondary Schools level. Dalhatu (2010) and Obinna, (2012) summed up the importance of computer in learning as: - Promote meaningful communication which in turn lead to effective learning; Promote good retentive memory because, the learner see, hear and observe, therefore the rate of remembrance is enhance; It motivates students to learn; It saves time; Facilitates the objective of learning; Makes the learning process easier; Learning process is made more practical than theory; Enriching the learning environment; Enhancing the learning

process; Making education more widely available and Producing cost effective solutions for the dissemination of knowledge.

Gambari, Kutigi, & Fagbemi (2014) identified the importance of computers in education which includes the followings:- Computer improve both teaching and students' achievements and they improve students vocabulary and stimulate students interest in reading; To make tomorrow work force competitive in an increasingly high-tech world, learning computer skills must be a priority; Computer gives students opportunity to interact with the content in new ways and also to adapt the learning process to their individual learning skills or habits; Work with computer particularly the internet brings valuable connections with teachers, other schools and students, and a wide network of professional around the globe. Those connections spice the school day with a sense of real-world relevance, and broaden the educational community. Increasingly use of computer make learning a private property of individual, and this will gradually return to individual the power to determine pattern of education. Education will become a more private act. There will be new opportunities for imagination and originality.

Computer also enhances the learning process in very unique ways. The use of the computer means that democratic and asynchronous access to course materials can be extended to all students. This gives the students opportunity to interact with the content in a new way and to adapt the learning process to their individual learning skills or habits. Students also have the opportunity to explore new and additional sources in the process, contributing not only to making meaning out of the content provided but, also contributing to the development of the course content. The use of computer also

reinforces the skills of the students in the technology, improving their marketability after graduation.

There are wide variations in the levels of the application of computers in instruction. In general, application could be broadly classified into basic and advance applications. Basic application simply utilizes the computer as a tool to enhance traditional ways of teaching. Advance application stretches the use of the computer in teaching by incorporating its advanced capabilities. The basic uses of computer includes, content sourcing and development involving the use of technology to source for content or to manipulate the content into a form ready for inclusion in a presentation, content presentation and instruction involving packaging the content into a presentation and incorporating an instructional mode into the presentation and enabling access to the content so that students can at their own time further explore and interact with the content. **Source:**-International journal of research and development, 3 (4).

Advance uses of computer in instruction includes, the incorporation of enhanced experiential tools such as digital video, 3-dimensional simulations and animations, virtual reality projections into presentations, the use of advanced asynchronous delivery system such as partial or full web-based Course packages using internet explorer or internet packages such as Web or Blackboard for all facets of course delivery within a bounded geographical space and distance education which is asynchronous in both time and space. Web-based and distance education use of the computer may incorporate such resources as content portals, search engines, electronic libraries and discussion forums. The computer can determine the needs of the learner and it can either access any frame(s) or it can be a possible sequence of learning. The computer controls the video disc on the one hand and

monitors the students' responses and facilitates students' interaction on the other hand. User- friendliness is accorded high priority. Provision of a touch – sensitive screen is an effective method of seeking student responses(Kumar, 2008). Gambari, Kutigi & Fagbemi (2014) stated that, properly designed media can enhance and promote learning and support teacher – based instruction. Milliron (2004) claimed that, any technology has to prove that it will ultimately improve or expand learning, engage and explore all aspects of technology good, bad or indifferent.

Using computer in educational instruction provide one to one interaction with a learner as well as instantaneous response to the answers elicited and allow learner to proceed at their own pace. Computer is useful in subjects that require drill such as Islamic Studies. Freeing the teacher's time from some classroom tasks so that, the teacher can devote more time to individual learner. Computer program can be used diagnostically and once a learner's problem has been identified, it can then focus on the problem area. Finally, because of the privacy and individual attention afforded by computer, some learners are relieved of the embarrassment of giving an incorrect answer publicly or of going more slowly through lessons than other classmates. **Source:-** Educational technology – A practical textbook for students, teachers, professionals and trainers (2008)

## **2.9 Perception of Teachers and Students toward Computer**

The perception implies the psychological process occurring in the brains of the organisms leading to the organization and interpretation of sensory information received from stimulus, (Yakubu&Abdulkarim, 2010). The perception of teachers and students toward the use of any instructional materials such as computer has the greatest influence on the teaching and learning process. Atadoga, (2010) stated that, it is the teacher who

provides the necessary stimulation and motivation that lead to effective learning in the classroom, the extent to which the objectives of Islamic Studies success depend on the teacher. The success and failure of the educational system depend on the quality and devotion of the teachers. According to Yakub and Abdulkarim (2010) the perception needed both for teaching and learning Islamic Studies using computer and for establishing high level of coordination among subjects areas depends to a large extent on the individual teacher and student.

The devotion of teachers to teaching, their length of teaching experiences and the perception of students to their studies may be more important than the teacher's qualification in determining the performance of students in examination. Perception in the use of computer in teaching and learning refers to as aided machine that facilitate learning. Perception differs from one person to another due to differences in learning and understanding, motivation, interest, value, cultural background, religious belief, experiences and expectations among others. As listed above, it is no wonder that, the role of perception of computer in teaching and learning of Islamic Studies becomes obviously important. Obinna (2012) noted that, perception is thus a dynamic process because, it undergoes evolution. Generally, the perception or interpretation of what computer is to the perceiver (student) would have to be related to information about computer available to the students over the years.

The objective of using computer is to help teachers in the selection and organization of suitable learning experience and preparation of valid evaluation devices. It also serves as a motivator, which offers students with high enthusiasm. Yet, some of the students performed poorly and accusing finger have been raised that, either the

problem lies with the teachers or the students or the society at large for not accepting computer for cultural reasons, religious beliefs or socio-economy reasons. This short coming and crisis of confidence between the agencies for education management and control, and between the teachers and the students, and between the school and society at large have led to the poor performance by students (Yakubu, 2004).

Consequently, the educational system has been plagued with perennial problems of examination malpractices. The reason for the poor performance may either rest on the fact that the students lack interest in the use of computer or it may be due to lack of clear concept and methodology from the subject teachers. The lack of clear concept may not be unconnected to personnel and instructional materials used such as computer which facilitates the understanding of the concept and they acts as catalyst for further studies of the subject. Furthermore, it may either be that, the school authority is not giving adequate support to the teaching of using computer as instructional materials or it may be that, the government does not provide the computer or the fund to aid the effective teaching of Islamic Studies using computer and this has led to the poor performance on the part of the students. It is against this background that inspired the Researcher to assess the perception of teachers and students toward the use of computer in teaching and learning of Islamic Studies in Kaduna State.

## **2.10 Effects of the Utilization of Computer in Teaching and Learning of Islamic Studies**

The effects of the utilization of computer in teaching and learning of Islamic Studies can be categories into two; namely positive effects and limitations.

### **2.10.1 Positive effects of the utilization of computer in teaching and learning**

The utilization of computer in teaching and learning has effect on both the teachers and the learners. According to Karamustafaoglu (2012) the use of computer increase the ability to perform logical operations is the major role and must surely be central to any computer application in the context of learning. The rapid respond to a learner's action is of particular effect as there can be quick reinforcement of good ideas which the student has and any misconceptions may be corrected. Computer plays a key role in the modern education system, students find it easier to use the internet than searching for information in fat books. The process of learning has gone beyond learning from prescribed textbooks, internet is a much larger and easier to access storehouse of information and when it comes to storing retrieved information, it is easier done on computer than hand written notes.

Computer is a brilliant aid in teaching because; online education has revolutionized the education industry. It has made the dream of distance learning a reality and education is no longer limited to classrooms, even if students and teachers are not in the same premises, they can communicate with one another and learn from the comfort of their homes and adjust timings as per their convenience. Another effect of the use of computer is that, it facilitates audiovisual representation of information, thus making the process of learning interactive and interesting. Computer adds a fun element to education, teachers hardly use chalk and board today and they bring presentations on a flash drive and begin teaching by plugging it into a computer. There is colour, there is sound, there is movement, the same old information come forth in a different way and learning becomes fun and the not so interesting lessons become interesting due to audio-visual effect. The

use of computer is also effective in the sense that, computer software helps better presentation of information in education in which internet plays a major role. As an enormous information base, internet can be harnessed for retrieval of information on a variety of subjects. Both teachers and learners benefit from the internet as teachers can refer to it for additional information and reference on the topics to be taught and learners can refer to it for additional information on subject of their interest.**Source:-**Educational research and review, 7 (13).

The effects of the utilization of computers enable access to the internet which has information on literally everything. Computer enable storage of data in the electronics format thereby saving papers and examination can be done through the use of computer, this will equally help the saving of paper .The memory capacities of computer storage devices are in gigabytes which enable them to store large capacities of data. Presentations, notes and test papers can be stored and transferred easily over computer storage devices. Also, learner can submit homework, assignments and desertation work as soft copies and the electronic format makes data as more durable because, electronically erasable memory devices can be repeatedly used as they offer robust storage of data and reliable data retrieved.

### **2.10.2 Limitations in the Utilization of Computer in Teaching and Learning**

There are limitations in the utilization of computer in teaching and learning of Islamic Studies. Karamustafaoglu (2012) identified some of the negative effects of using computer as instructional materials in relation to instructional media in teaching and learning in Nigeria, these include;

- i. The equipment and device, especially projection media, are expensive to procure. Those procured are usually not adequately maintained due to unavailable breakdown parts.
- ii. Electricity supply is not satisfactory, even where it is available. Many schools in urban areas do not have electricity in the computer laboratory and classrooms while many schools in the rural areas do not have electricity supply at all.
- iii. Audio-visual equipment is complex for teachers in our environment to operate because; they have no adequate practical training on how to handle most of them.
- iv. There is a high rate of equipment breakdown because; manufacturers of instructional media rarely take the Africa Climatic conditions into consideration.
- v. Much software of instructional packages developed in Europe and America are inappropriate in African culture. **Source:-**Journal of information technology, 4(1).

A breakdown in communication could lead to physical, psychological, linguistics or emotional problems for the learners. In order for the teacher to transmit information, ideas, or skills effectively and to prevent communication breakdown, he should use the most appropriate instructional media to engage the senses actively. This minimizes or eliminates noise factors in the teaching and learning processes. Daramola & Asuguo (2006) not all learners adapt equally well to the computer/web learning environment. Lee and Vail (2005) reports that, with Web-Based Instruction (WBI) not all students learn uniformly. To use a computer program, one must be able to use the computer. Computer is not without its problems. With self-access programs, learners could be left on their own for too long and may feel overwhelmed by the information and resources available. On the other hand, there may be too many

directions from the computer if classroom methods are transferred to the computer. Malfunctioning equipment will not only result in loss of time but, it will also create a negative perception towards computer.

One of the most difficult aspects of instructional computer is the availability and development of software, or computer programs. Courseware can be bought as a fully developed package from a software company but, the program provided may not suit the particular needs of the individual class or curriculum. A courseware template may be purchased, which provide a general format for tests and drill instruction, with the individual particulars to be inserted by the individual school system or teacher. The disadvantage to the system is that instruction tends to be boring and repetitive with tests and questions following the same pattern for every course. Software could be developed in-house, that is, a school, course, or teacher could provide the courseware exactly tailored to its own needs but, this is expensive, time consuming and may require more programming expertise. Teachers should strive more than just having the awareness of computer. They should be computer literate to be able to operate a computer, write simple programme, feed data, carry out word processing and arrange output in a desire format. There might be the problem of parents and teachers negative attitudes towards the importance and benefits of computer for teaching and learning. A large number of students, technical problems and expensive cost to purchase the computers may be common problems that negatively affect the use of computer in teaching and learning of Islamic Studies. **Source:** - Journal of special education technology, 20, (1).

Inspite of the unprecedented impact of computer on education in advanced countries, the Researcher is of the view that, computer has not made much headways in

Nigeria and Kaduna State inclusive, on account of several reasons, which includes; lack of available power supply, lack of available computer laboratory in schools, lack of available computers and their accessories and basic equipment in our educational institutions coupled with overcrowdings of classes posed the greatest hurdle.

### **2.10.3 Constructivist Theory**

Constructivism entails, the general view held is constructivism refer to learning as an active process of constructing rather than acquiring knowledge. Knowledge is not just a mental state; rather, 'it is an experienced relation of things, and it has no meaning outside of such relations' (Dewey, 1981). In the utilization of computer where available in teaching and learning process, the learner should be active in his construction using his experience in relation to the instructions of what is to be learnt while using the computer in the process of teaching and learning. Learners could extend on knowledge gained and further experience the relationship of concepts as they construct meanings among themselves. In the past, many computer-based applications were individualized tutorial, drill and practice, and simulation software, whereas in recent times, we are beginning to see environments that enable interactants to communicate with one another. Information tools provide necessary materials and resources for students to construct their knowledge.

Technologies such as encyclopedias and internet resources are tools that support the generation of ideas and can provide learners with information based on different perspectives which can support guided inquiry and can be used constructively. Computer enables learner to learn in many diversified ways irrespective of their backgrounds. Apart from the teaching and learning process, learners can learn different styles of writing or a combination of styles of drill and practice, tutorials, play games, draw, design, print,

simulations and communicate with other learner in different areas using the internet to browse and for interactive knowledge-based system. Based on the Researcher's opinion, using computer to teach Islamic Studies would engage the learner in active learning. Computer can increase motivation, develop valuable skills and enhance learning ability in the learner. Therefore, the constructivism theory will enable the learner to manipulate and utilize the computer to learn as they study in school and in their homes for better understanding of what is being taught. **Source:** - An unpublished M.Ed. thesis (2015), University of Nigeria, Nsukka.

## **2.11 Theoretical Framework**

Theory is a formal set of ideas, facts that are intended to explain why things happen. According to Ogwo and Oranu (2006) theory is a set of interrelated construct, definition and propositions that present a national view of phenomena by explaining or predicting a relationship among those elements. Magaji (2015) stated that, it is a set of related statements that are arranged so as to give functional meaning to a set of series of events. He further stressed that, the set of related statements may take the form of descriptive or functional definition, operational constructs, assumptions, hypotheses, generalizations, laws or theorems. Lidimma (2011) stressed that, when a theory is applied in teaching and learning, it provides the principles which directly governs it. Therefore, theory provides a base that helps a study to achieve its goal. The theoretical framework of this study will be based on Bruner's cognitive theory and constructivism theory.

### **2.11.1 Jerome Bruner's Cognitive Theory of Instruction**

Bruner states that, learning is not what simply happens to individuals but, something individuals make to happen by the manner in which they handle incoming information and put it into practice. For him, behaviour is what is simply elicited by a stimulus or strengthened by a highly complex activity which involves three major processes namely; Acquisition of information, transformation or manipulation of information into a form suitable for dealing with the task at hand; testing and checking the adequacy of this transformation (Ajayi, 2009). Bruner believes that, the learner achieves transformation by codifying and classifying incoming information into what he or she already has, for understanding the world better. How does the learner achieve transformation? Bruner says that, transformation is linked to three methods of representation (Enactive, Iconic and symbolic) that is, system for representing past experiences in the memory and utilizing them to deal with the present. Cognitive theories therefore define learning as the process of gaining or changing insight.

According to Bruner, the chief exponent of discovery learning is to provide facilities that help students learn on their own. This therefore, underscores the need to explore the use of computers in enhancing Secondary School students' achievement and interest in Islamic Studies.

### **2.11.2 Behavioral Theory**

The Behavioral theory is derived from the stimulus and response theory of Skinner in 1974 which states that, the learner is conditioned to respond based on a stimulus. Behaviorist viewed behaving organisms as a 'black box', and 'inner processes'. Working within the broad behaviorist framework, knowledge is a store house of

representations which can be called upon for use in reasoning and which can be translated into language. Skinner belief that thinking is a process of manipulating representations, the mind was perceived as an information processor with short-term and long-term memories, including a working memory. This is one of the reasons that, in computer, it is what you garbage in, that you garbage out, that is, it is the instruction that is available in the computer that it brings out for the utilization by the learner and thereafter, translate into their reasoning and respond by giving the correct answers. In relation to this study, the computer has a memory that could store much information installed into it and computer could be manipulated when the learner is guided in his thinking on how to operate the computer using the keys on the keyboard for teaching and learning process.

## **2.12 Review of Related Empirical Studies**

This section contains studies that were conducted in the past which are empirically related to the research study.

Odera, (2011) conducted a research on comparison of the use of computers by Secondary School Teachers in Kenya. The purpose of this study was to investigate how Secondary School teachers use computers in public Secondary Schools in Nyanza Province; identify public Secondary Schools that had computers and to provide evidence regarding utilization of computers in teaching. Related literature for this study revealed that, learning with computers improves quality education. The area of the study was Nyanza Province. Saturated sampling technique was used to select a sample of eighty computer teachers. The study Schools consisted of secondary schools that had computers at the time of this research. Data was collected by the use questionnaires, semi-structured interview and documentary analysis. The findings of this study showed that boys schools

than girls, used computers in teaching and learning. 50% of the teachers were encouraged by the Principals of Secondary Schools to use computers while 30% were partially encouraged but, 20% were keen and made their own efforts to learn and use computers in teaching. The results showed that, teachers used computers to improve students' communication skills, teach English language, Science, Mathematics and computer literacy skills. The majority of Schools did not have enough computers for students, lack of support materials and teachers were not adequately trained in the use of computers. In view of these findings, the Researcher relates this study to availability and utilization of computer in teaching and learning of concepts in Islamic Studies in Kaduna State's secondary schools.

Abulatifeh,(2011). Conducted a research on the effect of using Islamic education related websites on King Faisal university students' achievement in methods of teaching Islamic education subject. The study attempted to answer the following research question: - What is the effect of using Islamic education related websites on students' achievement in methods of teaching Islamic education subject compared with conventional method? To answer the question of the study, students in Islamic Education Department, Education Faculty were randomly chosen in the first semester of the academic year 2009/2010. The participants of the study consisted of two assigned sections. The experimental group was taught by using Islamic Education related websites; while the control group was taught according to the conventional method (Lecture Method). The researcher prepared achievement test as the instrument of this study. To establish the validity for the test, the method of content validity was used.

Mean and standard deviations were computed to compare means of the two groups on the pre and posttests of Islamic education competences. Analysis of covariance ANCOVA was computed to detect any significant differences between the two groups on the Islamic education competence. The results revealed that, the achievement of the students in the experimental group significantly improved. The results to the question of the study indicated that, there was a statistically significant difference between the mean scores of the experimental group and that of the control group on the post-test regarding methods of teaching Islamic education competences achievement. The analysis of covariance (ANCOVA) was also carried out at the level of significance. This was in favour of the experimental group since the adjusted mean scores of the experimental group. The results in favour of the experimental group are expected because, the Researcher believes that, Islamic education competences improvement is probably due to the characteristics of the Internet strategy where all members work individually. The use of Internet technology tends to make the students more interesting so, it creates motivation. The use of computer technology is reported to improve self-concept and mastery of Islamic education competences. Therefore, Adulatifeh study relate to this study on availability and utilization of computer in teaching and learning of Islamic Studies. Therefore, with this study, the use of Internet to learn the methods of teaching Islamic education subject like the utilization of computer, has positive impact on the learners achievement.

Gambari, Kutigi, & Fagbemi (2014) investigated a research work on effectiveness of computer assisted pronunciation teaching (CAPT) and verbal ability on the achievement of senior secondary school students in oral English. The study investigated

the effectiveness of a computer-assisted pronunciation teaching (CAPT) package on the achievement of senior secondary students in oral English in Minna, Nigeria. It also examined the influence of CAPT on verbal ability and gender. The population consisted of sixty senior secondary school students drawn from two coeducational secondary schools within the Minna metropolis. The data obtained were analyzed using t-test statistics, one-way ANOVA, and Schaffer's post-hoc test. The results revealed that students taught oral English with the CAPT package performed and retained the concepts of oral English better than those taught with the traditional teaching method. Students with high verbal ability performed better than medium and low verbal ability students respectively. These findings indicate that oral English concepts could be taught and learned better through the resourceful integration of a computer- assisted pronunciation teaching package. Therefore, Gambari, Kutigi, and Fagbemi study can be related to this present study on availability and utilization of computer in teaching and learning of Islamic Studies in secondary schools in Kaduna State.

Vernadakis, Zetou, Antoniou and Kioumourtzoglou (2002) carried out a study on the effectiveness of computer-assisted instruction on teaching the skill of setting in volleyball. The purpose of this study was to determine the effect of computer-assisted instruction (CAI) on learning the skill of setting in volleyball. The population for the study was randomly assigned to one of two teaching method groups: a) traditional instruction (TI) and b) computer-assisted instruction (CAI). Each group received nine 40min periods of instruction, on successive separate days. The subjects in the TI group experienced the skill of setting through a series of progressive skills accompanied with drill and repetition of practice which were presented by an instructor. The CAI group

experienced the skill of setting through a series of progressive skills accompanied with drill and repetition of practice which were presented by a multimedia program. At the beginning and at the end of this study the groups were given a 10-item multiple-choice knowledge test and a skill test. The results suggest that using multimedia technology as a teaching aid is as effective and as profitable at teaching skills as the traditional method. The findings of the study indicate that CAI is a functional method in teaching the skill of volleyball setting to children and that it might be as effective as TI. The main finding is that both groups learned the rudimental elements of the setting skill in volleyball both in theory and in practice in the environment of the specific instruction methods. This study relate to present study on content and design.

Basturk,(2005).Conducted a study on the effectiveness of computer-assisted instruction in teaching introductory statistics. The focus of this is to demonstrate and discuss the educational advantages of Computer Assisted Instruction (CAI). A quasi-experimental design was used for the study to compare learning outcomes of participants in an introductory statistics course that integrated CAI to participants in a Lecture-only introductory statistics course. Reviews of participants' identical midterm and final exams scores demonstrated that, participants in Lecture-plus-CAI section obtained higher averages on midterm and exams than participants in the Lecture-only sections and these higher averages likely were because of their better performance on concepts and practices that were taught in both regular lecture and CAI course. Findings suggest participants' learning capacity of the introductory statistics could be improved successfully when CAI is used as a supplement to regular lecture in teaching introductory statistics course. The purpose of this paper was to gather evidence that might support further investigation in

the use of CAI to teaching introductory statistics course. To be more effective, using computer with software programs in the introductory statistics course would be one of the important ways to improve students' knowledge about statistics and its usefulness in real life. It is a fact that emphasis on real-world applications with the computers is becoming more prevalent in introduction statistics course at many colleges and universities, including this course at Carnegie University. The findings further showed that, Lecture-plus-CAI demonstrated in this paper was part of a total learning environment for the students and was intended to help students develop their understanding of statistical concepts and ideas; statistical laboratories need to be used as part of an environment that supports student dialogue, investigation and judgment. They emphasized that "their strength lies in their close connection with the "experience" of a statistician that is, working as a numerical detective with "messy" data to solve real problems in a collegial environment. This study relates with present study content and differs in area of the study and design.

Salem and Salem (2011) conducted a research on the impact of using computer-assisted programs for teaching national education in Jordanian Schools. The purpose of this research is to investigate the effect of using computer-assisted programs for teaching National Education on students' achievement in Jordanian schools and also seeks to study the effects of the gender in their achievement. To achieve the purpose of the study, a pre/post-test was constructed to measure students' level in National Education. The sample population of the study was 129 tenth grade students. The subjects of the study were distributed into two groups (experimental and control). The experimental group was taught National Education using computer-assisted program while the control group was

taught using the conventional way. Descriptive statistical analyses were used (mean and standard deviation) for the pre and post-tests of students' achievement in national education. Comparison statistical methods were used (Two Way ANOVA) analysis of variance to make a comparison between the control and the experimental groups and gender variable (male and female). The findings of the study shows that, the greater success of students in the experimental group may be attributed to the following: students' participation in Computer-based instruction helped them to acquire meaningful learning in National Education. They utilized different representations they found in the interactive computer-assisted programs. This helped them in facilitating their understanding and also encouraged their conceptual restructuring. In addition, computer based programs encouraged students to use interactive and virtual representations. Therefore, it is recommended that teachers of education programs should take into consideration the use of technology for preparing pre service teachers to teach pronunciation effectively in tomorrow's English classroom. This study relates to present study on content, but differ on the design.

### **2.13 Summary of Related Literature**

The review of related literature to this study has shown that, much work had been carried out by various Researchers on availability and utilization of computer in teaching and learning in Secondary Schools. According to the review of related literature, the concept of computer has been widely defined as electronics device that can quickly receive, store, process and retrieve information fed into it. More so, under the conceptual framework, the concept of religion, concept of computer, computer availability for teaching and learning of Islamic Studies, uses of computer in teaching and learning of

Islamic Studies, perception of teachers and learners toward computer and effects of using computer both positive and negative were discussed. However, the Researcher observes from the review that, lack of available and functional computers are not found in Secondary Schools for teachers and students to use, teachers and students have positive perception toward computer.

The review of related empirical to this study has shown that, much work has been carried out by various Researchers on availability and uses of computer in teaching and learning in Schools for the realization of objectives of Secondary education to impact knowledge, skills, attitudes and moral character. From the review of related study, however, it was also discovered that, no attention has been given to the study of availability and utilization of computer in teaching and learning of Islamic Studies. This study is carried out to assess availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter focuses on the following sub-headings: research design, population of the study, sample and sampling procedure, instrument for data collection, validation of the instrument, pilot testing, reliability of the instrument, procedure for data collection and procedure for data analysis.

#### **3.2 Research Design**

Survey research design was used for this study. Survey research in the view of Nworgu (2006) is one in which a group of people or item is studied by collecting and analyzing data from the entire population or representative sample. Awotunde&Ogodunwa (2004). Define survey research as one which involves the assessment of public opinions using questionnaire. This design is therefore suitable since the study solicited the information on facts and opinions of Islamic teachers and students on the availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State.

#### **3.3 Population of the Study**

The population of the study was 1,548, comprising of 1,502SS II students offering Islamic Studies and 46 teachers, teaching Islamic Studies in Government Secondary Schools in Kaduna State from three senatorial zones, comprising of six schools which are GSS, Kawo, Rigachukun, Jere, Kagarko, Gyallesu and Chindits Barracks, Zaria. (Appendix A)

### **3.4 Sample and Sampling Procedure**

The sample for the study comprises of 300 students offering Islamic Studies and 46 teachers teaching Islamic Studies were drawn from the population of 1,548 students offering Islamic Studies and teachers teaching Islamic Studies in Kaduna State Government Secondary Schools using three senatorial zones, which includes; Northern Kaduna zone 1, Central Kaduna zone 2 and Southern Kaduna zone 3. Simple random sampling technique was used for the population sample. The choice of simple random sampling technique was based on Olatunji (2007) who stated that, 20% of the total population should be sampled if the population is below 2000.

### **3.5 Instrumentation**

A structured questionnaire was used for the collection of data. The instrument was developed by the researcher to find out the availability and utilization of computer facilities that are used in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. The instrument consists of seven (8) sections A – H. Section A, provides information on personal data. Section B, provide items on four scale used for the structured items which are: Strongly Agreed (SA) 4 points; Agreed (A) 3 points; Disagreed (D) 2 points and Strongly Disagreed (SD) 1 point for respondents to indicate the level of their agreement on the questions raised. Sections C- G comprised of (70) structured questionnaire which were raised to find out the extent to which each section's questions are obtainable. Section C, deals with research question one and consisted of 10 items statement that provides information on the types of computers facilities that are available in teaching and learning of Islamic Studies. Section D, has research question two with 12 items statement which provides information on the ability to use computer in

teaching and learning of Islamic Studies. Section E, is research question three, with 8 items statement on the types of computer available in teaching and learning of Islamic Studies. Section F, is research question four with 15 items statement on the availability and utilization of computer in Islamic Studies. Section G, has research question five, with 14 items statement on the challenges faced by teachers and students on the utilization of computer in teaching and learning of Islamic Studies in Secondary Schools Kaduna State. Section H, is research question six with 11 items which provides information on the views of teachers and students on the availability and utilization of computer in teaching and learning of Islamic Studies in Government Secondary Schools, Kaduna State.

### **3.5.1 Validation of the Instrument**

The instrument for this study was subjected to face and content validation by three experts, two from the Department of Educational Foundations and Curriculum and one from the Department of Educational Technology both from Ahmadu Bello University, Zaria. The experts were requested to assess the items in the instrument in terms of clarity and appropriateness in addressing the problems of the study and research questions under investigation. The Validates' criticism, suggestions, and advice were incorporated in the final draft of the instrument. Input made by the Validates really improved the present quality and standard of the instrument.

### **3.5.2 Pilot Testing**

Pilot testing was conducted through the administration of the vetted questionnaire to Ten teachers and Ten students in Government Secondary School Funtua and Government Secondary School Daura, Kastina State. The pilot Schools were not part of the sampled size but, they are within the population of the study. and was aimed to

determine if the research instrument was effective, valid and reliable. The problems encountered in the administration of the pilot testing were taken care of by addressing test items that required restructuring.

### **3.5.3 Reliability of the Instrument**

In establishing reliability, the instrument was trial tested by administration of the questionnaire to 10 teachers and 10 students of Government Secondary Schools in Katsina State. These respondents were chosen for the pilot study because, they possess similar characteristics and are part of the target population. Cronbach Alpha was used to determine the reliability coefficient of the instrument items. Section B of the instrument yielded 0.80; section C yielded 0.81 giving a total reliability coefficient of 0.81. The result of the trial test helped predict the outcome of the responses of the respondents.

### **3.6 Procedure for Data Collection**

An introductory letter was obtained from the Department of Educational Foundations and Curriculum, Ahmadu Bello University, Zaria. The Researcher took the letter to the Ministry of Education, Science and Technology in Kaduna to seek permission to conduct a research on the availability and utilization of computer in teaching and learning of Islamic Studies in secondary schools in Kaduna State. A letter of permission to conduct the research was written to the Zonal Education Officer of the Inspectorate Division. The Zonal Education Officer then wrote a letter to the Principals of the Schools to enable my access into the Schools to conduct the research. The Researcher had to see and seek the official permission of the Schools' Principals with the letter to conduct the research. The administration and collection of the questionnaire from the teachers and learners was done by the Vice Principals.

The questionnaire copies were administered to respondents by the Vice Principals of the schools who serves as the Research Assistants and ensure proper administration and safe handling. The Researcher briefed the Research Assistants on how to administer the instrument so as to enhance the return rate of the instrument. Information on the proper completion of the instrument was explained to the Research Assistants. The instruments were administered through personal contact by the Research Assistants to the teachers and the students and were collected after two weeks of the administration.

### **3.7 Procedure for Data Analysis**

Data collected from the respondents were analyzed. Mean and standard deviation were used to answer research questions and for decision making. Items with mean of 2.50 and above were accepted and items with a mean less than 2.50 were rejected. All the null hypotheses were tested at 0.05 level of significance using t-test statistical instrument.

## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

Data collected on the availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State are statistically analyzed in this chapter.

#### 4.2 Answers to Research Questions

The general aim of this study is to assess availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. The objectives were restructured into specific objectives and investigated with research questions. The research questions were as follows:

**Research Question One:** What is the difference between the mean opinion score of teachers and students on the level of availability of computer equipment for teaching and learning of Islamic Studies in Kaduna State Secondary Schools? To find out the difference in opinion of the teachers and learners on the level of availability of computer equipment for teaching and learning of Islamic Studies in the State's Secondary Schools, the expressed opinion on the available computer equipment in the Schools by the respondents were computed for the individual groups and compared. Table 4.1 shows the mean score of the group on the listed computer equipment available in the Secondary Schools for teaching and learning of Islamic Studies. For decision of the adequacy of the available computer equipment, the midpoint average of 2.5 and above was used while lower mean score indicated inadequate availability. The mid-point average is based on the three point scale used in the measurement.

**Table 4.1: Mean score of the groups on the availability of computer equipment for teaching and learning of Islamic Studies.**

S/n	Availability of computers for teaching and learning	Teacher		Learner	
		Mean	S. D.	Mean	S. D.
1	Computer Hardware for teaching and learning of Islamic Studies	2.37	0.853	1.86	0.964
2	Computer Software for teaching and learning of Islamic Studies	2.37	0.878	1.89	0.978
3	Projector for teaching and learning of Islamic Studies	1.33	0.634	1.20	0.565
4	Scanner for teaching and learning of Islamic Studies	1.39	0.682	1.25	0.609
5	Digital Camera for teaching and learning of Islamic Studies	1.39	0.614	1.27	0.545
6	Smart Board for teaching and learning of Islamic Studies	1.65	0.849	1.42	0.774
7	Printer for teaching and learning of Islamic Studies	2.50	0.810	1.82	0.978
8	Speaker for teaching and learning of Islamic Studies	2.46	0.836	1.77	0.969
9	Television for teaching and learning of Islamic Studies	2.43	0.834	1.76	0.949
10	Radio for teaching and learning of Islamic Studies	2.39	0.829	1.67	0.907
Grand mean		2.03	0.513	1.59	0.676

The table shows that, the teachers were generally of the opinion that, there are computer equipment available for teaching and learning of the subject in the Secondary Schools. Though their grand mean score of 2.03 was not up to the midpoint average of 2.5 but, it is higher than the grand mean score of 1.59 with a standard deviation of 0.676 by the learners. Here the grand mean score indicated a mean difference of 0.44. The overall

opinion of the two groups did not reveal that they agreed with the adequacy of available computers for the teaching and learning of Islamic Studies in the State's Secondary Schools.

**Research Question Two:** What is the difference between the mean opinion score teachers on the level of utilization of computer equipment for teaching of Islamic Studies in Kaduna State's Secondary Schools? To find out the difference in opinions between the teachers on the level of utilization of computer equipment for teaching and learning of Islamic Studies in Kaduna State, the mean score of the male and female teachers on the utilization of computer equipment for teaching the subject in the Secondary Schools were selected and compared. The mean score are presented in Table 4.2. Decision on utilization of the item is based on midpoint average of 2.5.

**Table 4.2: Mean score of teachers on the level of utilization of computer equipment for teaching of Islamic Studies.**

S/n	Utilization of computer for teaching and learning	Male		Female	
		Mean	S. D.	Mean	S. D.
1	Computer Hardware for teaching and learning of Islamic Studies	2.39	0.844	2.33	0.9
2	Computer Software for teaching and learning of Islamic Studies	2.39	0.882	2.33	0.9
3	Projector for teaching and learning of Islamic Studies	2.32	0.575	2.33	0.743
4	Scanner for teaching and learning of Islamic Studies	1.98	0.661	2.38	0.743
5	Digital Camera for teaching and learning of Islamic Studies	2.21	0.558	2.18	0.737
6	Smart Board for teaching and learning of Islamic Studies	1.89	0.871	2.35	0.828
7	Printer for teaching and learning of Islamic Studies	2.45	0.85	2.6	0.737
8	Speaker for teaching and learning of Islamic Studies	2.39	0.882	2.6	0.737
9	Television for teaching and learning of Islamic Studies	2.35	0.877	2.6	0.737
10	Radio for teaching and learning of Islamic Studies	2.29	0.864	2.6	0.737
Grand mean		2.27	0.691	2.43	0.785

The table shows that, the male and female teachers generally have the same opinion on the level of utilization computer equipment for teaching the subject in the selected Secondary Schools. From the grand mean score of 2.43 with a standard deviation of 0.785 for the females, it could be said that, they (females) have a higher perception of the level of utilization of computer equipment in the Schools for the teaching and learning of

the subject when compared with the mean score of 2.27 and a standard deviation of 0.691 for the males. The mean difference in perception of the level of utilization of computer equipment between the two groups is 0.16 in favour of the female teachers. But, the grand mean score for the two groups are lower than the midpoint average of 2.5 which means that, the two groups did not agree that the level of utilization of computer equipment for teaching the subject in the schools could be considered adequate. The observed variability in the mean is subjected to test of significance in the related hypothesis.

**Research Question Three:** What is the difference between the mean opinion score of students on the level of utilization of computers for learning of Islamic Studies in Kaduna State Secondary Schools? To find out the difference between the opinion of the male and female students on the level utilization of computers for learning of Islamic Studies in Schools, the mean score for the individual groups were computed and compared as shown in Table 4.3.

**Table 4.3: Mean score of students on the level of the utilization of computer for learning of Islamic Studies.**

S/n	Utilization of computers for learning	Male		Female	
		Mean	S. D.	Mean	S. D.
1	Computer Hardware for teaching and learning of Islamic Studies	1.73	0.945	2.11	0.958
2	Computer Software for teaching and learning of Islamic Studies	1.75	0.961	2.15	0.963
3	Projector for teaching and learning of Islamic Studies	1.76	0.464	1.33	0.709
4	Scanner for teaching and learning of Islamic Studies	1.69	0.513	1.74	0.738
5	Digital Camera for teaching and learning of Islamic Studies	1.42	0.48	1.37	0.644
6	Smart Board for teaching and learning of Islamic Studies	1.54	0.771	1.46	0.781
7	Printer for teaching and learning of Islamic Studies	1.72	0.958	2.01	0.995
8	Speaker for teaching and learning of Islamic Studies	1.68	0.946	1.95	0.994
9	Television for teaching and learning of Islamic Studies	1.67	0.926	1.92	0.977
10	Radio for teaching and learning of Islamic Studies	1.59	0.87	1.83	0.96
Grand mean		1.66	0.372	1.88	0.371

From the grand mean score of 1.88 with a standard deviation of 0.371 for the female students and 1.66 with a standard deviation of 0.372 for the male students, the two groups could be said to have disagreed with the adequacy of available computers for teaching and learning of the subject in the Secondary Schools. However, there was a little difference between the male and female learners in their rating of the available computers. The mean difference is 0.22 in favour of the female students. The significance of this observed difference is tested in the related hypothesis of the study.

**Research Question Four:** What is the difference between the mean opinion score on the challenges faced by the teachers in the utilization of computers for teaching of Islamic Studies in Kaduna State Secondary Schools? The challenges faced by teachers in the utilization of the computers for teaching of Islamic Studies in the Secondary Schools was

assessed on the bases of the male and female teachers' opinion. The mean score computed for the item used for assessing the challenges faced by teachers in the utilization of computers for teaching is based on the four point scale. The midpoint average for decision here is 2.5. Mean score of magnitude 2.5 and above would imply the challenges faced by teachers in the utilization of the computers for teaching the subject in the Secondary Schools while lower mean score would imply otherwise.

**Table 4.4: Mean score of the male and female teachers on challenges faced in theutilization of computers for teaching of Islamic Studies.**

S/n	Utilization of computers for teaching and learning of Islamic Studies	Male		Female	
		Mean	S. D.	Mean	S. D.
1	I use computer to teach	3.19	1.014	3.80	0.414
2	I use computer to assess students' performance	3.35	1.050	3.80	0.414
3	I use computer to keep records	3.29	1.071	3.73	0.704
4	I use computer for research	3.23	0.845	3.80	0.414
5	I use computer to prepare lesson note	2.77	1.230	3.67	0.724
6	I use computer to present instructional materials	2.81	1.138	3.67	0.724
7	I use computer to motivate students	3.16	1.003	3.80	0.414
8	I use computer to control students learning behavior	2.94	1.093	3.73	0.594
9	I use computer to make lesson interesting	3.23	1.175	3.80	0.775
10	I use computer to play Qur'an CD and DVD in teaching and learning of Islamic Studies	3.16	1.186	3.80	0.775
11	I use computer as an instructor to students in teaching and learning of Islamic Studies.	2.81	1.250	3.67	0.816
12	I use computer to access Islamic materials from the internet in teaching and learning of IslamicStudies.	2.94	1.093	3.67	0.816
	Grand mean	3.07	0.961	3.74	0.544

The mean scores in the table shows that, the male and female teachers were of the view that, computer equipment were adequately utilized for the teaching and learning of Islamic Studies in the State's Secondary Schools. This is indicated with grand mean scores of 3.07 and a standard deviation of 0.961 for the male teachers and 3.74 with a standard deviation of 0.544 for the female teachers. The rating of the female teachers was higher than that of the males with a mean difference of 0.67. Since both groups agreed with the adequacy of computers for teaching of the subjects, the observed difference could just be attributable to their magnitude of rating which is subject to test of significance in the related hypothesis.

**Research Question Five:** What is the difference between the mean opinion score on the challenges faced by students in the utilization of computers in learning of Islamic Studies in Kaduna State Secondary Schools? The opinion of students on the challenges faced in the utilization of computers for teaching and learning of the subject are compared here for possible differences in the opinion.

**Table 4.5: Mean score of the students on challenges faced in the utilization of computers for learning of Islamic Studies.**

S/n	Challenges in theutilization of computers in learning of Islamic Studies	Male		Female	
		Mean	S. D.	Mean	S D.
1	Students have no adequate skills of computer	3.74	0.612	2.65	1.299
2	Students are afraid to use the computer.	3.11	1.038	1.95	1.074
3	There are no enough computer in the school	3.91	0.463	2.97	1.316
4	There is lack of power supply to operate the school computer	3.74	0.612	2.58	1.253
5	There is lack of computer software	3.57	0.620	2.70	1.170
6	There is lack of fund to purchase computer for the school	3.89	0.482	2.82	1.335
7	They have no knowledge of computer in the school	3.09	1.071	2.11	1.042
8	There is the problem of politics in it.	2.91	1.071	2.19	1.101
9	The cost to purchase computer is too high	3.63	0.711	2.63	1.197
10	There is insufficient time to make use of the computer in the school	3.13	0.934	2.26	1.014
11	There is lack of other computer accessories	3.48	0.722	2.61	1.173
12	There is the problem of poor infrastructure	3.74	0.575	2.91	1.269
13	They lack confidence in the utilization of computer	3.17	0.996	2.25	1.101
14	There is the problem of old tradition beliefs	2.91	1.071	2.04	1.013
Grand mean		3.43	0.647	2.48	1.018

There are major differences between the male and female students on the challenges faced in the utilization of computers for learning of the subjects in the State Secondary Schools. From the grand mean score of 3.43 with a standard deviation of 0.647, the males could be said to have agreed with the suggested challenges facing the effective utilization of computers for learning of the subject in the Secondary Schools. This was not the case with the female students whose grand mean score for the table is 2.48 with a standard

deviation of 1.018. Apart from the wide gap between the individual students on the challenges as indicated with the standard deviation, they did not generally agree with the suggested challenges. The mean difference between the male and female students' perception of the challenges is 0.95. This variability in the mean score is tested in the related hypothesis.

### **4.3 Test of hypotheses**

The hypotheses formulated in the study are aimed at determining the establishment of significance difference in opinions of the groups on the availability and utilization of computers in teaching and learning of computers in the State Secondary Schools. The tests were carried out with the two sample t-test procedures because of the two independent groups involved. The hypotheses were tested at the probability level of 0.05 as follows:

**Null Hypotheses I:** There is no significant difference between the mean responses of teachers and students on the level of availability of computer equipment in teaching and learning of Islamic Studies in Kaduna State Secondary Schools.

The mean score of the teachers and students on the available computer equipment for teaching and learning of the subject in the Secondary Schools examined in Table 4.1 were compared here with the two sample t-test procedure to determine the significance of the variability obtained in their mean score for the variable. Table 4.7 shows the summary of the test results.

**Table 4.6: Two sample t-test on mean responses of teachers and students on the level of availability of computer equipment in teaching and learning of Islamic Studies**

Status	N	Mean	Std. Deviation	Df	t-value	P-value
Teacher	46	2.03	0.513	344	4.209	.000
Learner	300	1.59	0.676			

(t-critical at 344 DF= 4.21, P = 0.000)

The result in the table showed that, the two groups were significantly different in their perception of the available computer equipment in teaching and learning of the subject in the State's Secondary Schools. This is deduced from the observed t-value of 4.209 obtained at 344 degree of freedom (df) compared with the critical t-value equivalent of 1.96 shown at the bottom of the table. The significant level obtained in the test is 0.000 ( $P < 0.05$ ). These observations provide sufficient evidence for rejecting the null hypothesis. The null hypothesis that there is no significant difference between the mean responses of teachers and students on the availability of computer in teaching and learning of Islamic Studies in Kaduna State Secondary Schools is therefore rejected.

**Null Hypotheses II:** There is no significant difference between the mean responses of teachers on the level of the utilization of computer equipment in teaching of Islamic Studies in Kaduna State Secondary Schools.

The mean score of teachers on the level of the utilization computer equipment for teaching of the subject as examined in Table 4.2 were compared here for possible gender differences. The test was carried out with the two sample t-test procedure and the result is summarized in Table 4.8.

**Table 4.7: Two sample t-test on the utilization of computer equipment for teaching of Islamic Studies by male and female teachers**

Group	N	Mean	Std. Deviation	Df	t-value	P-value
Male	31	2.27	0.691	344	0.546	0.590
Female	15	2.43	0.785			

(t-critical at 344 DF= 0.546, P = .000)

The male and the female teachers did not differ significantly in their opinion on the utilization of computers for teaching of the subject in the Secondary Schools. This is revealed with an observed t-value of 0.546 obtained at 44 degree of freedom (df) compared with the critical t-value equivalent of 2.034 shown at the bottom of the table. The significant level obtained in the test is 0.590 ( $P > 0.05$ ). These observations did not provide sufficient evidence to reject the null hypothesis. The null hypothesis that there is no significant difference between the mean responses of male and female teachers on the utilization of computer equipment in teaching of Islamic Studies in Kaduna State Secondary Schools is therefore not rejected.

**Null Hypotheses III:** There is no significant difference between the mean responses of students on the level of the utilization of computer for learning of Islamic Studies in Kaduna State Secondary Schools.

The opinion students on the level of the utilization of computer in learning of Islamic Studies in Kaduna State Secondary Schools examined in Table 4.3 were compared with the two sample t-test to determine the significance of variability in the scores of the students on the variable. The result of the test is summarized in Table 4.9.

**Table 4.8: Two sample t-test on the level of the utilization of computer in learning of Islamic Studies by male and female students**

Group	N	Mean	Std. Deviation	Df	t-value	P-value
Male	199	1.66	0.372	344	1.520	0.142
Female	101	1.88	0.371			

(t-critical at 344 DF= 1.52, P = .000) Sig= significant

The result of the test did not reveal that, the variability in the mean opinion score between male and female students on the level of the utilization of computer equipment for learning of the subject in the Secondary Schools was significant. This conclusion is drawn from an observed t-value of 1.520 obtained at the 344 degree of freedom (df). The observed significant level for the test is 0.142 ( $P > 0.05$ ). With these observations, there is no sufficient evidence to reject the null hypothesis. The null hypothesis that, there is no significant difference between the mean responses of male and female students on the utilization of computer in learning of Islamic Studies in Kaduna State Secondary Schools is therefore not rejected.

**Null Hypotheses IV:** There is no significant difference between the mean responses of the challenges faced by teachers in the utilization of computer in teaching of Islamic Studies in Kaduna State Secondary Schools.

The opinion of the male and female teachers were used here to determine the level and possible difference in their perceptions on the challenges faced in the utilization of computers in teaching of the subject in the Secondary Schools as examined in Table 4.4. The mean score were compared here with the two sample t-test procedure to determine the significance of the variability obtained in their mean score for the variable. Table 4.10 shows the summary of the test.

**Table 4.9: Two sample t-test on the challenges faced in the utilization of computer for teaching of Islamic Studies by male and female teachers**

Status	N	Mean	Std. Deviation	Df	t-value	P-value
Male	31	3.07	0.961	344	2.511	.016
Female	15	3.74	0.544			

(t-critical at 344 DF= 2.511, P = .016) Sig= significant

The result of the test revealed significant difference in the mean rating of the male and female teachers on the challenges faced in the utilization of computers for teaching of the subject in the selected Secondary Schools. This conclusion is drawn from an observed t-value of 2.511 obtained at the 44 degree of freedom (df). The observed significant level for the test is 0.016 ( $P < 0.05$ ). With these observations, there is sufficient evidence to reject the null hypothesis. The null hypothesis that there is no significant difference between the mean responses of male and female teachers on the challenges faced in the utilization of computer in teaching of Islamic Studies in Kaduna State Secondary Schools is therefore rejected.

**Table 4.10: Two sample t-test on challenges faced in the utilization of computer in learning of Islamic Studies by male and female students**

Status	N	Mean	Std. Deviation	Df	t-value	P-value
Male	199	3.43	0.647	344	6.170	.000
Female	101	2.48	1.018			

(t-critical at 344 DF= 6.20, P = .000)

**Null Hypotheses V:** There is no significant difference between the mean responses on the challenges faced by students in the utilization of computers in learning of Islamic Studies in Kaduna State Secondary Schools.

To test this hypothesis, the observed variability in the mean score of the students in Table 4.6 where the challenges faced in the utilization of computers for learning of Islamic Studies were assessed are compared here with the two sample t-test. The summary of the test is presented in Table 4.11.

#### **4.4 Discussion Findings**

This study investigated the availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. Five null hypotheses were tested in line with the specific objectives and research questions of the study.

The first research question investigated the level of availability of computer equipment for teaching and learning of Islamic Studies in the Secondary Schools in the perspective of the teachers and students (learners). From the analysis of the respondents' opinion on the related data, it was found that the teachers were of the view that, some of the computer equipment available in the Schools is adequate for the teaching and learning of the subject. The students on the other hand, were not in agreement with the opinion. In the test of null hypothesis I, where the variability in their mean score was tested, it was found that the two groups differed significantly in their opinion. The null hypotheses was therefore rejected.

Research question two investigated the opinion of teachers on the level of utilization of computer equipment for the teaching of the subject in the State Secondary Schools. In the perception of the male and female teachers, the available computer equipment could be considered adequate for the teaching and learning of the subject. The female teachers were even more favourably disposed towards the adequacy more than the

male teachers. In the test of null hypothesis II, where significant difference between the two groups opinion was tested, no significant difference was obtained. The null hypothesis was therefore retained. The finding here is in line with Diraso, (2013) who reported that inadequate or lack of computer laboratory, equipped classrooms, printer, photocopiers, projectors, CD ROM and consumable materials contribute to ineffective teaching and learning of Islamic Studies in Secondary Schools,.

Research question three investigated the opinion of students on the level of utilization of computer equipment for learning of Islamic Studies in the Secondary Schools. From the analysis of the related data, it was found that both male and female students did not agree that the utilization of computers for learning the subject in the Secondary Schools could be considered adequate. In the test of null hypothesis III, where significance of the obtained variability in the means was tested, the difference was not found to be significant. The null hypothesis was therefore retained. The finding here agrees with Dalhatu, (2010) who reported that, teachers' use of ineffective instructional materials in teaching Islamic Studies has been found to contribute to this persistent poor achievement in Islamic Studies.

Research question four investigated the level on the challenges faced by teachers in the utilization of computers for the teaching of Islamic Studies in the State Secondary Schools. From the expressed opinion of the male and female teachers on the related items, it was found that, the respondents were unanimous on the inadequacy of the computer hardware, funding and power supply for effective operation of the computers in teaching of the subject in the selected Schools. In the test of null hypothesis IV, where the mean difference was tested for significance, the female teachers were found to be more

favourably disposed to the utilization of computers for teaching the subject in the schools more than the male teachers. The null hypothesis was therefore rejected. From the mean score, both groups were of the view that computers were adequately utilized for teaching and learning of the subject. The observed significance was therefore attributed to the degree of rating by the female teachers.

Research question five examined the challenges faced by students in the utilization of computers for learning of Islamic Studies in the State Secondary Schools. From the expressed opinion of the respondents on the related items, it was found that, both respondents were unanimous on the inadequacy of the computer hardware, funding and power supply for effective operation of the computers in the Schools. But, the teachers were of the view that, there were other challenges like lack of confidence and cultural inhibition among others which the students did not agree with. In the test of null hypothesis V, where the difference of opinion was tested, significant difference was observed. The null hypothesis was therefore rejected. The finding here is in line with the report of Odera, (2011) from a research on a comparison of the use of Computers by Secondary School Teachers in Kenya. The report stated that, majority of schools did not have enough computers for students, lack of support materials and teachers were not adequately trained in the use of computers.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter consisted of the summary into the investigation on availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. The chapter presents among others, the conclusion, recommendations and further study on the subject.

#### **5.2 Summary**

This study on availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State was set against the background that, there is a general need for improvement in teaching and learning of Islamic Studies among students in Kaduna State Secondary Schools. The use of instructional materials for such improvement cannot therefore be overemphasized. This is more so in the face of dwindling performance among students in Islamic Studies and for the fact that, computers have been found to enhance performances of teachers and students in most subjects at the Secondary School level. To accomplish the objectives, a structured questionnaire was designed and validated through face validity. The validated questionnaire was then subjected to a pilot test to establish its reliability and consistence index. The tested questionnaire was administered through a stratified random sampling procedure to teachers and students of Islamic Studies Schools across the three Senatorial zones of the State. A total of 46 teachers and 300 students successfully completed the questionnaire and were used for the study. The data collected were analyzed with the Statistical Package for the Social Sciences (SPSS) IBM version 20. Procedures selected

include means and standard deviations. The hypotheses were tested with two sample t-test procedure.

The study was partitioned into five chapters. Chapter one consisted of the background to the study, statement of the problem, objectives, research questions and hypotheses. Other parts of the chapter were scope and limitation of the study and significance of the study. Chapter two was made up of the review of the related literature to the study, while chapter three consisted of the methodology used in the sampled population selection, design of the instrument and method for data analysis among others. Chapter four presents the statistical analysis of the data with solutions to the research questions along with a test of the hypotheses formulated for the study. A summary of the major findings from the analysis of the data and test of the hypotheses are presented below:

### **5.2.1 Summary of Findings**

The major findings of this study are summarized below.

1. There are adequate computer equipment for the teaching and learning of Islamic Studies in Kaduna State Secondary Schools but teachers differed in their opinion on the level of available computer equipment in the schools from the students.
2. There was no significant difference in the opinions of the male and female teachers on the adequacy of available computer equipment for teaching and learning of Islamic Studies in the selected Secondary Schools.
3. The male and female students did not differ in their opinions on the inadequacy of the utilization of computer equipment for learning of Islamic Studies in the selected Secondary Schools.

4. The teachers were of the view that, the available computers in the Schools were adequately utilized for the teaching of Islamic Studies in the selected Secondary Schools.
5. The students agreed that, the utilization of computer significantly enhances the learning of Islamic Studies in Kaduna State Secondary Schools.
6. There are many challenges facing the utilization of computers for the teaching and learning of Islamic Studies in Kaduna State Secondary Schools among which are inadequate computer hardware, poor infrastructural facilities and poor power supply.

### **5.3 Conclusion**

Based on the findings from the analyzed data for this study and the tests of the hypotheses, the Researcher wishes to draw the following conclusions:

The available computers in Kaduna State Secondary Schools tended to be restricted to teachers' use and are not adequate for effective teaching and learning of Islamic Studies. The students do not have access to the use of computers in the teaching and learning process of Islamic Studies in Kaduna State Secondary Schools. The teachers and students agreed that, the utilization of computer for teaching and learning of Islamic Studies positively enhance the teaching and learning process but, the use of the computers is faced with many challenges. Amongst such challenges are inadequacy of computer hardware and software coupled with inadequate knowledge on their uses by both teachers and students, along poor funding, poor power supply and poor provision of infrastructural facilities for the effective use of computers.

#### **5.4 Recommendations**

Based on the findings from this study, it is recommended that:

1. The provision of computer hardware and software be given priority in Kaduna State Secondary Schools in the face of the ICT advent into all levels of education.
2. Provision of computers should not be based on teachers' requirement alone but, should include access for students' usage.
3. Provision of computer laboratory for all students would be an advantage not just for Islamic Studies but, in all other subjects as well.
4. There is a need for school to make adequate provision for students to participate in lesson through practical applications of computer usage.
5. The stakeholders of Kaduna State's Secondary Schools should look into improved ways of funding for provision of computers.
6. There should be periodic orientation on the utilization of computer for teaching and learning in Kaduna State's Secondary Schools to update both teachers and students.

#### **5.5 Suggestions for Further Studies**

1. This study assessed the availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State. There is a need to replicate the study in other States of the Federation of Nigeria towards improvement in the performances of teachers and students of Islamic Studies in all the Secondary Schools.
2. Computer education, training and practical should be made compulsory in Schools for Students to learn, while the teachers should be made to go for

computer training workshops to update their knowledge so as to enhance teaching and learning in their various areas of disciplines.

3. All the Education Authorities and None Governmental Organizations in Kaduna State should assist in the provision of Computers and Computer laboratories with all its Equipment to Secondary Schools.

#### **5.6 Limitations of the Study**

1. The study was limited to the availability and utilization of computer packages in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State.
2. The study was limited to three senatorial zones out of the six senatorial zones in Kaduna State for effective research organization.
3. The study was limited to two Schools in each of the three senatorial zones in Kaduna State to reduce cost of funding the research project.

#### **5.7 Contribution to knowledge**

1. This dissertation on availability and utilization of computer packages has contributed to knowledge by creating awareness to teachers and learners that the use of computer in teaching and learning of Islamic Studies has more advantages.
2. Computer hardware, software, quality infrastructural facilities and adequate power supply can motivate the teacher and learner on the use of computer in teaching and learning of Islamic Studies in secondary schools in Kaduna State if provided by the state government.

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**APPENDIX A**

**QUESTIONNAIRE ON AVAILABILITY AND UTILIZATION OF COMPUTER  
IN TEACHING AND LEARNING OF ISLAMIC STUDIES IN SECONDARY  
SCHOOLS IN KADUNA STATE**

**SECTION A: Personal Data**

Please read the following statements carefully. Indicate your opinions by ticking [  $\surd$  ] as appropriate in the space provided.

1. Name \_\_\_\_\_ of \_\_\_\_\_ school
- .....
2. Status: a) Islamic Teacher
- Male
- Female
- b) Islamic Studies Student
- Male
- Female

.....

**...SECTION A and B**

**Instruction:** Please indicate the extent to which are obtainable with each item on this sections by ticking [  $\surd$  ] against the appropriate column.

**Scales use**

Key:

- |                    |      |
|--------------------|------|
| Available          | (A)  |
| Fairly Available   | (FA) |
| Not Available      | (NA) |
| Strongly Agreed    | (SA) |
| Agreed             | (A)  |
| Disagreed          | (D)  |
| Strongly disagreed | (SD) |

**APPENDIX B**

**Request for Validation of Instrument**

Department of Educational  
Foundations and Curriculum  
Ahmadu Bello University,  
Zaria.

16<sup>th</sup> February, 2016

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Dear Sir/Madam

**Request for Validation of Instrument**

I am a post-graduate student department of Educational Foundation and Curriculum, Ahmadu Bello University, Zaria. I am currently undertaking a research project titled **“Availability and Utilization of Computer in Teaching and Learning of Islamic Studies in Secondary Schools in Kaduna State”**.

Attached in the draft of the instrument for the study. You are please requested to read through the items and vet their clarity, wording, relevant and total coverage use in collecting data for the study.

You are also requested to put down your comment(s), suggestion(s) and advice(s) for improving the quality of the instrument.

Thanks for your co-operation.

Yours faithfully,

**Ayishatu Doreen Usman**  
**M.ED/EDUC/38960/2012-2013**  
**P16EDFC8519**

## APPENDIX C

### Letter to the Respondents

Department of Educational  
Foundation and Curriculum,  
Ahmadu Bello University,  
Zaria.

Date .....

Dear Respondents

I am a post-graduate student of the above department and university, currently conducting a research on “**Availability and Utilization of Computer in Teaching and Learning of Islamic Studies in Secondary Schools in Kaduna State**”.

You have been identified as one who could furnish the researcher with the relevant information to effectively carry out the study. The researcher therefore humbly requests your sincere-opinion in completing the attached questionnaire.

You are assured that the information given by you will be treated in strict confidentiality and used for the purpose of this study.

Thanks for your anticipated cooperation.

Yours faithfully,

**Ayishatu Doreen Usman**  
**M.ED/EDUC/38960/2012-**  
**2013**

**P16EDFC8519**

**APPENDICES  
APPENDIX D**

**Distribution of the Population**

**Distribution of the Populations**

<b>S/NO</b>	<b>ZONE</b>	<b>STUDENTS</b>	<b>TEACHERS</b>	<b>TOTAL</b>
1	Zone 1 Northern Kaduna	637	125	762
2	Zone 2 Kaduna Central	566	75	641
3	Southern Kaduna	115	30	145
	Total	1318	230	1548

**SOURCE:** Ministry of Education Kaduna State as at 2015

**Sampling Populations**

<b>S/N</b>	<b>ZONE</b>	<b>SCHOOLS</b>	<b>STUDENTS</b>		<b>TEACHERS</b>		<b>TOTAL</b>
			<b>MALE</b>	<b>FEMALE</b>	<b>MALE</b>	<b>FEMALE</b>	
1	Zone 1 Northern Kaduna	GSS Gyallesu	33	35	4	8	80
2		GSS Chindit Barracks	39	40	6	6	91
3	Zone 2 Kaduna Central	GSS Rikachikwu	30	26	5	4	65
4		GSS Kawo	33	31	2	4	70
5	Zone 3 Southern Kaduna	GSS Jere	11	9	2	2	24
6		GSS Kargarko	7	6	1	1	15
	Total	6	153	147	20	26	346

**APPENDIX E  
QUESTIONNAIRE**

**AVAILABILITY AND UTILIZATION OF COMPUTER**

**IN TEACHING AND LEARNING OF ISLAMIC STUDIES IN GOVERNMENT  
SECONDARY SCHOOLS IN KADUNA STATE.**

**SECTION 'B'**

**Q.1** What are the types of computer facilities that are available in your school for teaching and learning of Islamic Studies?

S/N	ITEMS STATEMENT	A	FA	NA
1	Computer Hardware for teaching and learning of Islamic Studies			
2	Computer Software for teaching and learning of Islamic Studies			
3	Projector for teaching and learning of Islamic Studies			
4	Scanner for teaching and learning of Islamic Studies			
5	Digital Camera for teaching and learning of Islamic Studies			
6	Smart Board for teaching and learning of Islamic Studies			
7	Printer for teaching and learning of Islamic Studies			
8	Speaker for teaching and learning of Islamic Studies			
9	Television for teaching and learning of Islamic Studies			
10	Radio for teaching and learning of Islamic Studies			

**Q2:** Which types of computer is available to you in teaching of Islamic Studies in your School?

S/N	ITEMS STATEMENT	SA	A	D	SD
1	There is desktop computer for teaching and learning Islamic Studies				
2	There is super computer software for teaching and learning Islamic Studies.				
3	There is laptop computer for teaching and learning Islamic Studies.				
4	There is smart board for teaching and learning Islamic Studies.				
5	There is handset phones for teaching and learning Islamic Studies				
6	There is digital camera for teaching and learning Islamic Studies.				
7	There is television for teaching and learning Islamic Studies				
8	There is radio for teaching and learning Islamic Studies.				

### SECTION C

**Q3.** What is your ability in the utilization of computer in teaching and learning of Islamic Studies?

S/N	ITEMS STATEMENT	SA	A	D	SD
1	I use computer to teach				
2	I use computer to assess students' performance				
3	I use computer to keep records				
4	I use computer for research				
5	I use computer to prepare lesson note				
6	I use computer to present instructional materials				
7	I use computer to motivate students				
8	I use computer to control students learning behavior				
9	I use computer to make lesson interesting				
10	I use computer to play Qur'an CD and DVD in teaching and learning of Islamic Studies				
11	I use computer as an instructor to students in teaching and learning of Islamic Studies.				
12	I use computer to access Islamic materials from the internet in teaching and learning of Islamic Studies.				

**Q4:** What is your ability to the utilization of computer in learning Islamic Studies in your School?

S/N	ITEMS STATEMENT	SA	A	D	SD
1	I use computer to write assignment in Islamic Studies				
2	I use computer to watch some Islamic Studies programmes				
3	I use computer to demonstrate action				
4	I use computer to write Arabic alphabets				
5	I use computer to communicate with my Muslim friends via the internet				
6	I use computer to view distant Islamic monuments				
7	I use computer to assess my examination results				
8	I use computer to keep my school records				
9	I use computer for power point presentation				
10	I use computer to download Islamic data				
11	I use computer to get Islamic information				
12	I use computer to read the Qur'an				
13	I use computer for motivation				
14	I use computer to play games				
15	I use Internet for research				

### SECTION D.

**Q5.** What are the challenges faced by Teachers and Students on the utilization of computer in teaching and learning of Islamic Studies in your School?

S/N	ITEMS STATEMENT	SA	A	D	SD
1	Teachers and students have no adequate skills of computer				
2	Teachers and students are afraid to use the computer.				
3	There are no enough computer in the school				
4	There is lack of power supply to operate the school computer				
5	There is lack of computer software				
6	There is lack of fund to purchase computer for the school				
7	They have no knowledge of computer in the school				
8	There is the problem of politics in it.				
9	The cost to purchase computer is too high				
10	There is insufficient time to make use of the computer in the school				
11	There is lack of other computer accessories				
12	There is the problem of poor infrastructure				
13	They lack confidence in the utilization of computer				
14	There is the problem of old tradition beliefs				

### SECTION E.

**Q6.** What are your views on the availability and utilization of computer in teaching and learning of Islamic Studies in Secondary Schools in Kaduna State?

S/N	ITEMS STATEMENT	SA	A	D	SD
1	Computer makes the teachers and students to be up to date				
2	Computer motivates the teachers and students interest.				
3	Computer helps in distance learning programme				
4	It enhances efficiency				
5	It provides teaching and learning materials to teachers and students				
6	It makes teaching and learning simple				
7	It enhances teachers, students relationship				
8	It helps in examination malpractices				
9	It helps to extend the scope of search and research				
10	It makes learning a private property of individual				
11	Computer are interactive				

Thank you for responding to the Questionnaire.

## APPENDIX F

### Determining the Size of Random Sample

N	S	N	S	N	S
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	75,000	382
210	136	1,100	285	100,000	384

**Notes**

**N = Population Size**

**S = Sample Size**

**Source:** Krecjie and Morgan, 1970. In: Cohen, L. Manion, A.L. and Marrison, K. (2000) *Research Methods in Education* (5<sup>th</sup> Edition) London: Roulade Falmer. Chapter 4 Page 95.