



# The Role of Principals in the Effective Utilization of Instructional Materials among Selected Secondary Schools in Kaduna State, Nigeria

MICHAEL OLUGBENGA





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Michael Olugbenga, Kaduna, Nigeria

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# **DEDICATION**

This book is dedicated to  
my late father & late Elder Michael Are

# ACKNOWLEDGEMENT

I appreciate God almighty for making it possible for me to write this book. I also wish to thank my parents Mr. and Mrs. Michael Are; my one and only brother, Michael Ariyo, who has been supportive throughout; his wife Mrs. Adejoke Ariyo, my wife Mrs. Shola Michael and my children Michael, Boluwatife and Othniel and also my nieces Motunrayo and Comfort; my only nephew Daniel and lastly my Supervisor in my school days Professor Jonathan Mari.

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# Chapter 1: Introduction

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

The role of a school principal in Nigeria has undergone significant changes for the reasons among many is the instruction of school governing bodies to help checkmate the activities of the principals. Over the past two decades, the Nigerian government has made a concerted effort to improve the quality of education in the country. Although considerable progress has been made in decentralizing responsibility and authority within the educational system, improving educational quality remains a challenge. A matter of growing concern is that most schools in Nigeria are not functioning adequately and someone has to be held responsible for the apparent low level of performance in schools. The education trust fund act (1993) indicates that the principals are accountable for the academic performance of their school. Thus, in order to improve these results, more effective leadership is needed from principals. Principals are the key role players in the development and maintenance of academic standards in schools. John (2007) stated that the poor academic standards could be amongst other reasons, indicative of a lack of effective leadership and commitment at the school level. A number of researchers concur with the belief that many school principals lack the skills to manage and lead their schools effectively. The rapid rate at which change has taken place and still is taking place together with the increased volume of paper work, has placed the principals under an enormous amount of pressure. Goslin (2009) argues that many principals overlook their responsibilities of instructional leadership because either they are not fully aware of their primary task or they are too busy attending to administrative duties of managing the building and its people.

Dauda (2009) stated that most principals are mainly concerned with financial management, human resource management and policy issues. The management was ranked 7<sup>th</sup> out of 10 leadership activities. Ariyo (2009) pointed out that expectations on principals have moved from demands of management and control to demands of an educational leader who can foster staff development, parental involvement, community support and student. He further stated that although new responsibilities and activities have been added to the principals' roles, those old responsibilities have remained. A dominant belief in educational circles is that principals can and should make a difference in student learning and creating conditions for improved instructions. This is done by visiting classrooms regularly, ensuring effective use of instructional materials, motivating teachers and students and ensuring that the proper curriculum is injected into the students. The primary responsibility of the principals is to enhance the school's teaching and learning activities and ensuring effective utilization of instructional materials is a part of it.

Boliht (2009) stated that for teachers to be effective in the use of instructional materials, principals must be effective in their supervisory roles. Effective schools need principals who are capable of planning, organizing and managing all resources. A principal as a leader, therefore, occupies a central position at school. He or she has a significant contribution to make in the establishment of an environment that is conducive to teaching and learning. The importance of principal's supervisory behaviour in secondary education cannot be over emphasized. Shaft (2008) stated that there are differences in the ways male and female principals spend their time, in the ways they do their day-to-day interaction, in the priorities that guide their actions, in the perceptions of them by others, and in the satisfaction they derive from their work. These differences create a work environment that is qualitatively different for women than it is for men. Male and female principals tend to carry out their work similarly; however, they may put a different emphasis on the importance of the task. Women are likely to view the job of principal as that of a master teacher or educational leader, while men view it from a managerial, industrial perspective. In addition, women approach public school administration as a service to the community or to society, while men see the job as an indicator of personal status or



achievement. He further stated that whether there is a male or a female principal, the principal as a leader of a group of teachers, helps to improve the learning situation of the students through instructional supervision. Instructional supervision is one of the processes by which school principals attempt to achieve acceptable standards of performance and result. It is the tool of quality control in the school system and a phase of school administration which focuses primarily upon the achievement of appropriate expectation of educational system.

Instructional material is crucial to teaching and learning process. A dedicated classroom teacher feels satisfied when he/she realizes the objectives he/she has set out to achieve for every lesson has been achieved. In order to achieve this, a trained teacher employs a number of methods, design and actions, one of which includes the use of instructional material. Instructional materials are referred to as the resources which both the teachers and the students use for the purpose of effective teaching and learning. Okwo (2006) defined instructional materials as those materials that teachers can use in teaching to facilitate the learning of a particular subject or lesson. The list of instructional materials is inexhaustible and their limit is the teacher's level of resourcefulness, creativity and imagination. Rominszowski (2006) listed instructional materials to include newspaper, magazine, pictures, bulletins, journals, radio, television, tapes, film stripes, and slides. Others are overhead and opaque projector, real objects and computer. Okebukola (2003) described instructional materials as information multipliers because they are capable of providing learners with opportunities to learn beyond teachers' capabilities when utilized for instruction.

The utilization of instructional material is the act of using and applying the available instructional material in the actual teaching and learning process. Where resources are supplied for instructional use, teachers are expected to utilize them to support a smooth and meaningful flow of instruction and promote understanding of the content being taught.

Principals as school heads, therefore, need to provide this support to teachers, they have to be involved in the implementation of instructional programmes by overseeing what teachers are doing with the students. A good principal devotes himself / herself to supervise the teaching-learning process in his/her school. As a result, the principal, as the supervisor, provides professional guidance to teachers in order to improve the conditions which affect learning and growth of the students and teachers. In discharging their supervisory roles, the principals can help the teachers for better task performance in the following areas: preparation of lesson plans and lesson notes before going for lessons; good use of instructional methods and effective use of instructional materials, keeping and maintaining of school record, etc.

The research questions are:

- a. What roles do principals play in the effective utilization of instructional materials among secondary schools?
- b. What constraints do principals face as hindrance to effective supervision of utilization of instructional materials?
- c. How does supervision by principals enhance utilization of materials in instruction?

### ***Statement of the Problem***

The problem to be researched is the role of principals in the effective utilization of instructional materials in secondary schools. The research problem can be encapsulated with the following questions:

- a. Do principals perform their roles as school head?
- b. What do school principals perceive as their core duties?
- c. How do principals influence the utilization of instructional materials in schools?
- d. What challenges do principals face in balancing their dual roles of manager and instructional leader?

### ***Research Questions***

The research questions are:

- a. What roles do principals play in the effective utilization of instructional materials among secondary schools?
- b. What constraints do principals face as hindrance to effective supervision of utilization of instructional materials?
- c. How does supervision by principals enhance utilization of materials in instruction?

### ***Research Hypotheses***

The hypotheses generated are: Will there be any significant difference in schools where principals perform supervisory roles in ensuring effective utilizations of instructional materials and schools where principals lack supervision on the use of instructional materials?

Will there be any significant difference in the schools where female or male principals perform supervisory roles in ensuring effective utilization of instructional materials in schools in Kaduna state?

Will there be any significant difference in terms of qualification and principal's role in ensuring effective utilization of instructional materials?

### ***Purpose of the Study***

In view of the problem formulated above, the general aim of this research is to determine the role of principals in the effective utilization of instructional materials in secondary schools. In order to realize the aim of this study, the following objectives are set namely to:

- a. Understand the role of principals in schools.
- b. Explore principals' understanding of their core duties.
- c. Understand how principals can influence the use of instructional materials in schools.
- d. Identify the challenges principals face in balancing their dual roles of manager and instructional leadership.
- e. Understand the effect of instructional materials on learning.

### ***Significance of the Study***

The effective utilization of instructional materials gives the learner the opportunity to smell, touch, and taste objects in teaching and learning process. Consequently, it is the principal's role to ensure that knowledge is passed unto the students at different levels of education and educational instructions are well planned and properly allied with relevant instructional materials for clarity and comprehensibility. Hence, this study is significant for school heads, teachers, students, curriculum planner, educational system and the society at large.

To the students, the effective use of instructional materials would enable them to effectively learn and retain what they have learnt and thereby advancing their performance in the subject in question. This is because according to Nwadingwe (2000), learning is a process through which knowledge, skills, habits, facts, ideas and principles are acquired, retained and utilized; and the only means of achieving this is through the use of instructional materials.

The study will motivate teachers to use instructional materials in teaching and learning process. This is in line with assertion of Ekwueme and Igwe (2001) who noted that it is only the teachers who will guarantee effective and adequate usage of instructional materials and thereby facilitate success. Consequently, a teacher who makes use of appropriate instructional materials to supplement his/her teaching will help enhance students' innovative and creative thinking as well as help them become plausibly spontaneous and enthusiastic. Oremeji (2002) supportively asserts that any teacher, who takes advantage of these resources and learns to use them correctly, will find that he/she makes almost an incalculable contribution to instruction. He further says that instructional are of high value in importing information, clarifying difficult and abstract concepts, stimulating thought, sharpening observation, creating interest and satisfying individual difference.

The study is also significant to the principals as it will expose them to their job and they will learn how to ensure that teachers use instructional materials in passing information to students. The study is also significant to educational system and society. This is because when teachers solidify their teaching

with instructional materials and learners learn effectively, the knowledge acquired will reflect in the society positively. Students will be able to understand the functioning of the economy, interpret the government's economic policies and activity and perform economically better in the choice of life and work.

### **Scope and Delimitation of the Study**

This study is focused on investigating the role of school principals in the effective utilization of instructional materials in schools in Kaduna state. The study will cover some selected secondary schools in Kaduna state. Principals, vice principals and teachers will be needed for the investigation. The study was necessary as schools, especially public schools, turn in students with not very good result in WAEC and NECO which may be the result of the abstract kind of teaching in our schools. The study used the survey method to gather information on the role of principals on the effective utilization of instructional materials in schools.

### ***Operational Definition of Terms***

- a. Instructional Materials: They are tools used in educational lessons, which includes active learning and assessment. Basically, it is the resource a teacher uses to help him teach his students. They are also human and non-human materials and facilities that can be used to ease, encourage, improve and promote teaching and learning activities. They are whatever materials used in the process of instruction. Examples include manipulative, charts, projectors, etc.
- b. Model: A model is anything used in any way to represent anything else. They are physical object, e.g. ball.
- c. Retention: The ability to retain academic work for a long period of time.
- d. Academic performance: This is the outcome of education, the extent to which a student, teacher or institution has achieved their educational goal and it is measured by final grade earned in the course.
- e. Principal: one who holds a position of presiding rank, especially the head of a secondary school. A principal is someone who is the leader of an entire community within a school. He or she is responsible for managing the major administrative tasks and supervising all students and teachers.

## Chapter 2: Literature Review

### ***Introduction***

The review of relevant literature to the present study was carried out in turn as indicated below. This is to further lay a solid foundation for the study.

- ❖ Concept of instructional materials
- ❖ Types of instructional materials
- ❖ Importance of instructional materials
- ❖ Guidelines for designing instructional materials
- ❖ Factors guiding the selection of instructional materials
- ❖ Utilization of instructional materials
- ❖ Problems associated with the use of instructional materials
- ❖ Solution to problems associated with the use of instructional materials
- ❖ Effect of instructional materials on secondary school students
- ❖ The role of principals in promoting utilization of instructional materials
- ❖ The Role of the Principals in the Effective Utilization of instructional materials
- ❖ The Problems facing school principals in the utilization of instructional materials in their schools.
- ❖ How to enhance role of principals in promoting the effective utilization of instructional materials.
- ❖ Problems facing secondary schools in Kaduna state in utilization of instructional materials
- Theoretical framework
- ❖ Empirical studies
- ❖ Literature appraisal

### ***Concept of Instructional Materials***

Instructional materials have been defined by various authors. For example, Obanya (2009) viewed them as didactic materials which are supposed to make learning and teaching possible. According to Shola (2010), instructional materials are materials or tools locally made or imported that could make tremendous enhancement of lesson impact if intelligently used. Boyish (2009) referred to them as objects or devices, which help the teacher to make a lesson much clearer to the learner. Instructional materials are also described as concrete or physical objects which provide sound, visual or both to sense organs during teaching. They are also materials which the teacher uses in supplementing his/her teaching. They are materials used to facilitate learning for better results. Likewise, it is the use of chalkboard, charts, models, overhead projectors, films, television and computers in teaching process. Hence, it is not just the use of tools of technology alone but a systematic, integrated, organization of machines' hard and soft ware and man, to the solution of problems in education (Donald, 2002). Shola (2009) stated that in order to ensure an effective teaching and learning process, it is important for the teacher to be thoroughly acquainted with instructional materials available to him.

Oluyori (2006) stated that instructional materials are of visual, audio and audio-visual that help to make concept abstract and ideas concrete in the teaching and learning process. They are also materials which the teacher uses in supplementing his/her teachings. Instructional materials include materials used to facilitate learning for better results. Likewise, it is the use of the chalkboard, charts, models, overhead projectors, films, television and computers in teaching process. Hence, it is not just the use of tools of technology alone but a systematic, integrated organization of machines' hardware and software and man, teachers to the problems of education. The component of instructional materials available to teachers and students are in large numbers and they also vary according to their functions. Pictures (motion and still) graphics, maps, radio - recording and play back and the equipment used to get some of these utilized can be regarded as instructional materials. Examples of instructional materials are charts,

maps, diagrams, comics, models, globes, slides, film strips, television, radio cassettes, video, recorders, cinema, and public address systems, laboratories, and museums, flash cards, flannel boards, card boards, calendar, computers, etc.

Froese (2007) saw them as actual equipment used as a “hands- on” process by learners in order to develop the degree of skills sought by the course requirement.

Angela (2008) also defined instructional materials as tools used in educational lessons, which includes active learning and assessment. She further stated that any resource a teacher uses to help himself / herself teach his/her students is an instructional material. Ibeneme (2000) stated that there are many types of instructional materials which include:

### **Traditional Resources**

Traditional resources include any textbooks and workbooks used in the classroom. For example, traditional resources also include any supplemental reading material, like novels or poems outside of the textbook. These materials can really help to introduce new concepts to your students.

### **Graphic Organizers**

This is another type of instructional material, which also is any type of visual representation of information. Diagrams, charts, tables, flow charts and graphs are all examples of graphic organizers. For instance, in mathematics classroom, it is essential to use graphs on a coordinate plane when learning about the equation of a line so that students can actually see how a line is graphed. All these graphic organizers allow students to physically see relationships between ideas. This is imperative for learning, especially for students who are more visually oriented.

Mbadiwe (2003) refers to instructional materials as any device used to assist the instructor in the preparation of a lesson, teaching of the lesson and facilitate students’ learning of the subject matter. They include those objects that are commercially acquired or improvised by the teacher to make conceptual abstraction more concrete and practical to the learner. Onoja (2011) also stated that instructional materials are relevant materials utilized by the teacher during instructional proceeds to make the content of instructions more practical and less vague. Instructional materials are also described as concrete or physical objects which provide sound, visual or both to the sense organs during teaching (agina- obu, 2005). Thus, instructional materials could be regarded as the information dissemination devices used in the classroom for easy transfer of learning. They provide a firsthand experience where possible or of vicarious one where only that is feasible. Adekeye (2012) affirmed that there are different instructional materials available to be used in teaching various subjects effectively, but not all topics require the same type and quality of materials. Hence, instructional materials are classified in different ways. The criteria for classifying these materials include the degree of expertise and technical skills needed for the production, nature of the materials; physiological parameter or sensory modality, the place where the material is produced and miscellaneous characteristics. Based on the foregoing, instructional materials are generally classified into three forms: audio or aural instructional materials, visual instructional materials and audio-visual instructional materials (Olusunde, 2011).

### ***Types of Instructional Materials***

According to Kamaldeen (2013), instructional materials can be grouped into three forms: audio, visual and audio-visual materials. The audio aids (deals with sound only) the visual aids (as in sight) multi-sensory deals with the five senses of the students.

#### **Audio**

Dealing with what is heard; music, drums, radio, tape recorder, projectors, DVD and any sound effect that can be heard. Audio aids function as learning facilitators and teaching machines. The materials motivate the learner and arrest his or her attention during the instructional process. Such materials are much helpful in teaching languages and continually expanding their scope with the availability and development of technology. Audio aids can be defined as models and devices that can be heard and can

give an image of something, somebody and some situations. These materials include recorded materials, radios, cassette players, phones, etc.

### **Visuals**

According to Webster dictionary, visual aids are things we look at (such as chart or film) that are used to make something easier to understand. They are also things that can be seen; comprising posters, charts, chalkboards, flannel graph, flashcards, puzzles, objects-(real), projectors, cartoons, television, computers CD, and internet and so on. According to Ariyo (2009), visual aids can be a very powerful tool to enhance the impact of a teacher's presentation. He further stated that words and images presented in different formats could appeal directly to your audience's imagination, adding power to your spoken words. Shola (2006) also stated that there are different types of visual aids that are commonly used these days.

### **Power Point**

The Microsoft power point is probably the most commonly used form of visual aids. It is believed that if properly used, it can help in the delivery of a lesson.

### **White, Black and Green Board**

White or black board can be very useful to help explain the sequence of ideas or routines, particularly in the sciences. Teachers use the board to clarify or to record points as they introduce their presentation. The board serves as a material where teachers write down every stage of experiment or process, complex terminology or precise references to help their students take accurate notes.

### **Video**

Video gives the teacher the chance to show stimulating visual information. The teachers use video to bring movement, pictures and sound into their teaching. Showing students clips that are relevant to their content. This increases the level of attention and stimulates the learner.

## ***Importance of Instructional Materials in Teaching and Learning***

Oluyori (2006) commented that instructional materials, as an integral part of teaching- learning situations, help to bring about a permanent and meaningful experience. Adeogun (2001) discovered a very strong positive significant relationship between instructional materials and academic performance. According to Adeogun, schools, endowed with more instructional materials, performed better than schools that are less endowed. This corroborated study by Babayomi (1999) stated that private schools perform better than public schools because of the availability and adequacy of instructional materials. Adeogun (2001) discovered a low level of instructional materials available in public schools and stated that our public schools are starved of both teaching and instructional materials. He expresses that effective education cannot take place if necessary instructional materials are not present. He further stated that instructional materials provide a firsthand experience but there are a number of schools where principals do not enforce the use of instructional materials or situations where teachers are not experienced enough to use specific materials. Students of such schools do not perform well during standardized testing. In public schools where principal's supervision is not thorough on the use of instructional material and the usage is not properly monitored, students most times are taught abstract things which reduce the level of retention.

Yuma (2008) agreed that the lack of visual aids may make students lose interest in what the teacher teaches and may actually result in poor performance in various types of assessment. In schools where principals monitor and enforce the use of instructional materials, students perform better in standardize test, this is because teaching is real and concrete and allows students to visualize what they are taught, in this case retention is high and they perform better in various level of assessment (Ianso2009). He further stated that it enables teachers also to use various teaching methods to pass instruction to students. There have been several studies on instructional materials and academic

achievement, for instance, Morunfolo (2009) in kwara state, investigated the availability of resources for teaching some selected subjects in ten secondary schools. Questionnaires were administered to collect data on the resources available for the teaching of some selected subjects in ten secondary schools and related these to students' achievement in each of the selected subjects and to the amount of resources available for the teaching of the subjects. Finding from the study showed a significant effect of material resources on the students' academic performance in these subjects. In the same vein, Poopola (2009) investigated the effect of instructional materials on academic achievements of students in Ogun state. Five secondary schools in Abeokuta were used for this study. Questionnaires were designed to elicit responses on instructional materials that were available for the teaching and learning of each of the three school subjects he examined. He collected WAEC examination result for five years and compared achievements of students in school with adequate material resources and students in schools with inadequate material resources. He found a significant difference in the achievement of the two sets of students. The schools with adequate instructional materials performed better than those with inadequate materials in their school. This shows that schools where resources are available and are used properly tend to assimilate better than schools that do not have materials at all.

Momoh (2008) also researched on the effect of instructional materials on students' performance in WAEC examination in kwara state. He correlated instructional materials with the academic achievement of students in ten subjects. Information was collected from their subject teachers about the materials employed in teaching in five schools. The achievements of students in WAEC examination for five years were related to the instructional materials available for teaching each of the subjects. He concluded that instructional materials have a significant effect on students' achievement in each subject. This is in-line with (Johnson, 2000) who stated that instructional materials perform functions like an extension of the range of experience available to learners, supplement and complement the teacher's verbal explanation, thereby making learning experience richer and providing the teacher with interest into a wide variety of learning activities.

Instructional materials supplement, clarify, vitalize, emphasize instruction and enhance learning in the process of transmitting knowledge, ideas, skills and attitude.

Kemi (2009) states that merely using instructional materials does not guarantee effective teaching to make teaching and participation effective, the instructional materials must be appropriately selected and used. He further stated that the primary function of instructional materials as a communication device is to serve as a more concrete reference to meaning than a spoken or written word. According to Mwangi (2010), in the teaching and learning process, instructional materials serve functions of enhancing retention which makes learning more permanent. Equally, they stimulate and sustain interest in learning by providing firsthand experience with the realities of the physical and social environment.

Bolick (2003) pointed to a good relationship between useful teachings and the utilization of instructional materials. He argued that while some educators have been fascinated by the potential of instructional materials to enhance teaching and learning, teachers lagged behind in using instructional materials in teaching and learning. Others expressed doubts that instructional materials will ever incite teaching reform on participation. Instructional materials are integral components of teaching and learning situation; it is not just to supplement learning, but to complement its process. It then shows that, if there must be an effective teaching and learning activity, effective utilization of instructional materials will be necessary.

Awonji (1998) agreed that instructional materials expose students to a variety of experiences that would enable them (students) to see things that exist outside their immediate environment with the use of films, for instance, students see far communities and settlement. Thus, when students see things they could not have seen without instructional materials, their experiences will be broadened and deepened. This is to say that methods of teaching will grossly be incomplete where instructional materials are out. It is a good policy to use as fully as possible, teaching materials that can be made available in school, especially in the secondary school in order to make teaching and learning more real, purposeful and meaningful (Ejembi,2001).

Terry (1998) affirms that the use of instructional materials and good strategies in teaching and learning environment is very important as they make lesson experience more concrete and realistic to learners. Instructional materials are devices that present a complete body of information and are largely self-supporting rather than supplementary in teaching or learning process (Ike, 2002).

Ikwuzon (2001) opined that instructional materials and methods enable the teachers to widen the experience of students. He further stated that information-carrying technologies that are used for instructional purpose with the hope of delivering educational information in teaching and learning, make students learn more and retain better what they have been taught and that it also promotes and sustains students' interest; it also allows learners to discover themselves and their abilities (Ajelabi, 2000). Abimbade (1997) affirms that when instructional materials are used, there is a tendency to make the classroom environment lively and interesting. However, research has also proved the potentials of instructional materials in enhancing students' academic achievement and also enriching classroom instruction (Afuwaje, 2000).

Instructional materials are important as they provide detailed information that may not otherwise be known about (Keri, 2009). Teachers use these materials to provide creative ideas to assist in the learning process. Instructional materials serve as the channel between the teacher and the students in delivering the instruction (kelvin2000).

Motunrayo (2010) agreed with this view and stated that instructional materials also serve as the motivation for the teaching and learning process. They also encourage students in their lessons and get their attention. She further stated that some instructional materials are so important and cannot be left out in the teaching and learning process. These materials include the following:

### **Chart**

A chart is a graphical representation of data, in which the data is represented by symbols such as bars in bar chart or slices in a pie chart (Taylor, 2007). A chart can represent tabular numeric data functions or some kinds of qualitative structures and provide different information (Hamza, 2003). Burna (2009) further stated that charts are often used to ease understanding of large quantities of data and relationships between parts of the data. Charts can usually be read more quickly than the raw data that they are produced from. He further stated that they are used in a wide variety of fields and can be created by hand often on graph paper or by using computer charting application.

### **Electronic Media**

Dora (1997) stated that although measuring students' success has been associated with an array of learning strategies, the relationship between specific targeted electronic media sources as motivational teaching strategies and students success remain unclear, especially among online college students. With the explosion of electronic media and social networking, it seems like a natural vehicle to incorporate these communication sources into college curriculum (Huett, 2000). She further stated that students have an excellent opportunity to enhance their knowledge through accessing the internet. All the information on all topics is not far beyond one touch of a button.

From generation to generation, education is the main part of our life. Teaching and learning are persistent process; people are competing with one another to become the best among others. So, they generated many techniques to enhance their study performance. One of the techniques is using electronic media to enhance their study performance (Huett, 2002).

### **Manipulatives**

Manipulatives are concrete objects that are commonly used in teaching mathematics. They include attributes blocks geometric shapes of different colours and sizes that may be used in classification or patterning task; plastic counting cubes for solving simple addition and subtraction equations (kholes,2009).



Johnson (1999) stated that many manipulatives are commercially available and it is possible to make them using common objects, such as craft sticks, beans or buttons. In using manipulatives to teach basic operations involving whole numbers, it is important to use objects that are uniform.

Clement (1999) stated that students who use manipulatives in their mathematics classes, usually outperform those who do not, although the benefit may be slight. This benefit holds across grade level, ability level and topic. Manipulatives also increase scores on retention and problem solving test. Attitude towards mathematics are improved when students have instruction with concrete materials provided by teachers knowledgeable about their use. Manipulatives can be the key in providing effective, active engaging lessons in teaching and learning process. Manipulatives help students learn by allowing them to move from concrete experiences to abstract reasoning. He further stated that the use of manipulatives helps students hone their mathematical thinking skills. According to Stein and Bovalino (2001), manipulatives can be important tools in helping students to think and reason in a more meaningful way. Edward (2009) calls this type of deep understanding integrated concrete knowledge. The effective use of manipulatives can help students connect ideas and integrate their knowledge so that they can gain deep understanding of mathematical concept. Research also indicates that using manipulatives helps improve the environment in math classrooms. When students work with manipulatives and are given a chance to reflect on their experiences, not only is mathematical learning enhanced, but math anxiety is greatly reduced (Heuser, 2000). Papert (2008) calls manipulatives "objects to think with". Incorporating manipulatives into mathematics lessons in meaningful ways helps students grasp concept with greater ease, making teaching most effective.

### **Video and Television**

Bulus (2008) stated the television has a more profound influence on the human race than any other medium of communication. He further stated that the film, video and the television are indeed very powerful tools that transmit a wide range of audio, it brings the models of excellence to the viewer, and it brings the world reality to the classroom. Shola (2008) asserted that the film, video and television are powerful instructional tools when they are used appropriately and moderately as they can make teaching and learning process more concrete, lively, colorful and interactive. It contributes to a more lasting learning because of the visual, audio and motion effects. Salmon (2004) reported that school children tend to view television as an easier medium than books. When a sample group was divided in two, half to watch an educational television programme and half to read a similar story in print, the TV watchers put less effort into the task. Bale (2001) suggests that 10 - 15 minute clips are most effective, as they don't overtax children's concentration and allow time for focused discussion about the materials.

### ***Guidelines for Designing Instructional Materials***

Motunrayo (2012) defined instructional design as a practice of creating instructional experiences which make the acquisition of knowledge and skill more efficient, effective and appealing. The process consists broadly of determining the state and needs of the learner, defining the end goal of instruction, and creating some intervention to assist in the transition. He further stated that there are many instructional design models, but many are based on the models with five phases: analysis, design, development, implementation, and evaluation.

Montague (2003) defined instructional design in two phases: an instruction is a set of events that facilitate learning, while design means a creative pattern or a rational, logical, sequential process intended to solve problems. Thus, instructional design can be defined as a systematic process of translating principles of learning and instruction into plans for instructional materials and activities. Fafure (2003) is of the view that the teacher creates a variety of digital resources for administrative and instructional applications in the classroom. He further stated that one of the commonalities that most of these materials share is that the design directly influences its ability to communicate. Fafure (2003) also highlighted the principles to be considered while designing instructional materials.

### **The Curriculum and the Context**

These are variables that will have significant impact on the decision about teaching materials. Many teachers are bound by a mandated curriculum defining the content, skills and values to be taught. Whether imposed at school or state level, a curriculum outlines the goals and objectives for the learners and the course of study. Whatever the curriculum is, it is the teachers' responsibility to ensure that the goals and objectives of the overarching curriculum are kept close at hand while designing materials (Nunan, 2008). As noted earlier, the context in which teaching and learning occur, will impact on the type of materials that may need to be designed.

### **Resources and Facilities**

Clearly, teachers must be realistic about what they can achieve in terms of material design and production within the limitations of available resources and facilities. Access to resources such as computers, video player, and TV, radio, cassette recorder, whiteboard, etc will have impact on the decisions in materials design. Hadfield and Hadfield (2003) offer useful suggestions for "resourceless" teaching which address the impoverished reality of some teaching context.

### **Personal Confidence and Competence**

This is one of the factors that will determine an individual teacher's willingness to embark on materials development. This will be influenced by the teacher's level of teaching experience and his or her perceived creativity or artistic skills and overall understanding of the principles of materials design and production. In reality, most teachers undertake materials design to modify, adapt or supplement a course book, rather than starting from scratch and this is probably the most realistic option for most teachers. Decisions available to teachers include the following (adapted from Harmer, 2001):

- a. Add activities to those already suggested
- b. Leave out activities that do not meet your learners' needs
- c. Replace or adapt activities or materials with supplementary materials from other commercial texts
- d. authentic materials (newspaper, radio, films, etc)

-Teacher -created supplementary materials.

Change the organizational structure of the activities, for example, pairs, small group or whole class.

Modern technology provides teachers with access to tools that enable professional results in materials production. Computers with clipart, internet access and digital pictures offer unprecedented means for publishing high quality teaching materials.

### **Copyright Compliance**

Teachers need to be aware of the restrictions that copyright laws place on the copying of authentic materials, published materials and materials downloaded from the internet for use in the classroom. This is particularly important while creating course materials that will be used by large number of classes' overtime. Copy right law has implications while creating a worksheet that includes excerpts from published works. While an idea can be copyright, the expression of the idea can be copyright as well and teachers need to be mindful of this.

### **Time**

This is usually a problem to teachers who wish to design their own materials. It is, thus, important to consider ways to make this aspect manageable. Block(1991) suggests a number of ways in which teachers can lighten the load, including sharing materials with other teachers, working in team to take turns to design and produce materials, and organizing central storage so that materials are available to everyone.

### ***Factors Guiding the Selection of Instructional Materials***

Yuma (2008) stated that the teacher, who wants to use instructional materials, should consider the following variables to guide him/her in the selection of the types to be used.

#### **Availability**

The teacher should ensure that the instructional materials to be used are easily available for use before the date of usage. It means that the materials should be in the store and the teacher should look at it and test it before the day of the lesson. If the teacher has to prepare himself/herself, he/she should do so at least a day before the lesson.

#### **Accessibility**

The teacher must ensure that the materials to be used as instructional materials are not only available but also accessible to him/her. If they are already made materials, they should be within reach of the teacher on the date and time of use. There should be no excuse that the materials are readily available but locked up in the store because the store keeper is found nowhere or the keys to the store have been misplaced.

#### **Affordability**

The instructional materials to be used should not be expensive; the cost should be such that either the teacher or the school can afford it. It is of no use to say that something is available but not affordable due to high cost. There should be a budget for instructional materials and when this is done, the cost should not be outrageous: it should be within the budget of the school.

#### **Suitability**

The teacher using the instructional materials should ensure the appropriateness of the materials for his/her intended learners. The materials should be suitable for their age, experience and intelligence. The legal, safety and ethical aspects of the materials to be used should equally be considered. The materials should not portray any anti- social. They should also be free from any bias, distortion or prejudice. If the materials would need electric power, then an alternative should be sought to avoid disappointment from electricity.

#### **Simplicity**

The instructional material to be used should be simple to operate or manipulate. The teacher should test the materials and ensure their workability before the actual date of use. There should not be any technical problem and where electricity is to be used, provision should be made for an alternative power. No teacher should use electricity failure as an excuse for non- performance. In a situation where an instrument demands the hands of a technician, the technician should be on hand and the teachers should have an insight into the operation of the instructional materials.

### ***Utilization of Instructional Materials***

The effective use of instructional materials in any teaching and learning process cannot be overemphasized. Using instructional materials to teach can boost students' success in the classroom. These materials reinforce what a teacher says and ensures that the main points are understood. Instructional materials signal students to important information and allow them to experience something that is abstract in life. This is for the fact that such materials enhance, facilitate and make teaching easy. Instructional materials are essential to effective teaching. The teacher should know how to prepare and use instructional materials and should recognize the value of fostering good teaching (Bulus, 2009). Suleiman (2009) stated that instructional materials bring about improvement in the teaching and learning process as well as permit teachers and students to interact as human beings in a climate where people control their environment for their own best purpose. Also, most educators generally and equally agree that creative use of variety of instructional materials will increase the probability that students

would learn more, retain better and bring about the skills they are expected to perform. Apart from their ability to process meaningful sources of information, instructional materials help the teacher with the means for extending his/her horizon of experience as well as providing the teacher with the rich sources of procuring communicative materials which could be produced jointly by the teacher and the students. Furthermore, several studies have been conducted to test the value of instructional materials and other sensory devices. These researches have proved that instructional materials when properly used in teaching and learning situations, can accomplish a lot of complex tasks. The instructional materials also offer real experience in giving the teacher basis for thinking and understanding. They supply concrete basis for conceptual thinking and therefore, reduce meaningless responses of students. At the same time, they overcome the limitation of time, space and size by helping the students to understand things that are too small or too big, slow or fast. Therefore, instructional materials can provide members of a group with a common or joint experience. They also break language barriers and ease difficulties and in the end make the lesson more meaningful. They save time and thus, enable students to grasp ideas more effectively and quickly. Likewise, they help to simplify and emphasize facts and clarify difficulties. They reinforce other teaching methods and materials. They improve the efficiency of other method and effectiveness of teaching process.

Kamal (2008) stated that the greatest value of instructional materials lies in their appeal to students' senses and perception, their ability to attract and hold students' attention and interest, the ability in developing understanding of the material to be learned, helps the students to learn faster and save teaching time, help students to understand the relationships between different concepts or ideas.

Kajang (2000) asserted that good instructional material should promote specific desirable results. It should stimulate interest, command attention, be easily understood and develop a positive reaction on the part of the students. He further stated that instructional materials should be complete, have some explanation in the form of a label and finally be as simple as possible. Richard (2003) in his study found that human beings remember 10% of what is heard, 50% of what is heard and seen, and over 80% of what is heard, seen and done.

Emelie (2009) stated that the use of instructional materials is a big help for teachers to facilitate the teaching and learning process. These visual aids are important in motivating and arousing their students' interest. The characteristics of a good instructional material include the following:

- **SIZE:** It is, therefore, a must that the material is big enough to be seen by the farthest students in the classroom. Both the font size and the font style should be considered. It should be a material that all students should be able to see.
- **THE COLOUR:** Students are more interested to those materials which are beautiful; this is because students are attracted to bright colours. This brings about attention and facilitates learning.
- **THE DURABILITY:** Instructional materials are not made for one session only; they must last if possible until lifetime so that they can be reused over and over again.
- **ECONOMY:** The materials can be handmade if teachers cannot afford the expensive ones, cheap card boards papers can be used designed in such a way that students' interest are stimulated.

Lanre (2001) stated that the use and utilization judges the value of instructional materials, process or personnel by the degree they singly or collectively satisfy the derived instructional needs. The foresight of instructional behavior controls, to a large extent, the means for achieving them. Principals, as an administrative figure in a school, are responsible for the quantity and quality of materials and also ensure that teachers are trained on how to use these materials effectively.

A study conducted by Gogo (2002) on the input of cost-sharing on access, equity and quality of secondary education in public schools in Kano found that the quality of education had remained average for the entire period of 1996 to 1999. The author concluded that performance could be attributed to inadequate teaching and learning material. In addition, Gogo recommended that in order to provide quality education, the availability of relevant instructional materials is crucial. Ayo (2004) suggested that only 20 percent of what is taught may be retained through the sense of hearing and 80 percent or more through seeing. In this consideration, it would likely appear that the unavailability of relevant

instructional materials affects the quality of education and subsequently performance (Ayo and Olembe, 2008). Whereas the use of mere pictures multiply the students' level of understanding of the material presented, they should be used to reinforce the teacher's message, clarify points, and create excitement. Visual aids add impact and interest to a presentation. They enable the teacher to appeal to more than one sense at the same time, there increasing the students understanding and retention.

Kyriacou (2009) argues that teachers should be able to draw upon a very rich variety of resources and that the resources teachers use and the way in which they use them help teachers bring what they teach alive. As such, they have an important influence on students' interest and motivation to learn. The quality and suitability of the instructional materials that teachers select and the ways in which they are used by students are critical factors influencing whether learning is successful or not.

Instructional materials are not ends in themselves but are means of attaining specific instructional functions. Teachers ability to effectively utilize the available media and this optimize the attainment of instructional situation varies with their level of utilization (Anyanwu, 2003).

Ajayi (2004) identified three ways by which the teacher should prepare for use of instructional materials, these are as follows:

- By Previewing: Before any instructional material is brought into the class, the teacher is expected to go through the material.
- First knowledge: The teacher should have full knowledge of the parts, names and operational level of the intended instructional materials.
- Actual presentation: This is the period the teachers operate and use these materials in instructing a particular topic in class.

Robert (1999) agreed that instructional resources are prerequisite for effective passing of instruction and also maintained that the availability of instructional materials is necessary for effective teaching and learning. In the same vein, Agupusi (2003) attributed non-achievement of educational objective to unavailability of instructional materials. The adequate provision of instructional materials for teaching is important but it is useless filling up rooms with materials that may end up getting spoilt without being put to use for a day. It, therefore, means that the effective utilization of instructional materials is necessary for the achievement of the objective of instruction (Azikwe, 2000). This is in line with Okobia's (2011) investigation. The study was to evaluate the availability of instructional materials and resources for teaching and learning in schools in Edo state. Two research questions were raised. Are instructional materials and resources available for teaching and learning? The second is, how often do teachers use these materials to teach? The result of the study revealed that most materials and resources are not available for teaching. The most available instructional materials are textbooks and chalkboards. These were predominantly used in the classroom. Other instructional materials such as charts, graphs, cartoons, posters, pictures, maps, which are locally made and are inexpensive are not provided. These are completely neglected in the teaching process. Audio-visual materials like television, computers, and overhead projector are not just there at all. This is observed in both rural and urban schools irrespective of the fact that audio visual materials are very useful in teaching. Teachers basically relied on textbook to teach in schools. These findings are corroborated with the reports of several investigators that have examined the use of instructional materials in teaching and learning in schools in some states in Nigeria. Arisi (2009), Ekpo (2001), Iyang Abia (1992), Jimoh (2009), Garuba (2003) observed that of all the problems plaguing education in Nigeria, the most intractable is the dearth of relevant materials. The findings of this study revealed that there are lack of instructional materials and resources for effective teaching. Most teachers do not use instructional materials to teach. The lack of necessary instructional materials reduces the students to mere passive participants in the learning process. Consequently, there is erosion of enthusiasm in the teaching and learning process by both teacher and students. The utilization of instructional materials, according to Olaitan (1999), involves the teacher manipulating these materials to facilitate the teaching and learning process. The extent of use of instructional materials in teaching and learning process stimulates on the operational definition of perception as it is reflected and focused on variables and contextual factors as having effects on how perception takes place.

David (2007) agreed that a key feature of effective teaching is the selection of instructional materials that meet the needs of students and fit the constraints of the teaching and learning environment. He further stated that there are many pressures for educators to match the audio visual stimuli of television, computers and electronic games with which students are experienced. Teaching can only be meaningful if materials are used to facilitate learning.

### ***Problems Associated with the Use of Instructional Materials***

It has been identified that, using instructional materials to facilitate learning is not always the issue but how to use it and its availability to use (Henrik, 1997). The rapid growth of electronic technology, for example, offers a formidable challenge to the electronic teacher, who may be almost paralyzed by the mass of details. However, the use of practical instructional materials can simplify the learning process to a great extent. In order to ensure an effective teaching and learning process, it is important for the teacher to be thoroughly acquainted with the teaching resources and services available to him. Instructional materials in secondary schools are not usually available; more so, how to make the best instructional use of those available with the modern innovation are grossly lacking and faced with lots of problems in its usage by teachers (Anaele, 2000).

Bello and shuaibu (2009) highlighted some of the revealing problems which include:

- a. Poor teacher professional knowledge and technical know-how to teach practical skill content areas of a subject.
- b. Low teacher competence in the area of effective instructional resource utilization.
- c. Failure to appreciate the importance of using instructional materials in promoting and understanding certain concept of a subject.
- d. Insufficient awareness of types of instructional materials for use in teaching different contents.
- e. Insufficient time allocation to accommodate effective instructional materials utilization.
- f. Lack of finance to acquire or improvise needed instructional materials.
- g. Poor maintenance culture of existing instructional materials, especially projected and manipulative types.
- h. Lack of opportunities for in service training and refresher course for serving teachers to update their knowledge periodically in the light of new research findings and resource development.

Jarolinek (2006) stated that instructional materials in great quantities are placed in schools at an ever increasing rate. The problem, sometimes, is not lack of materials, but how to make the best use of those available. Unfortunately, instructional materials, especially the modern innovation, are grossly lacking in our country Nigeria, a lot of problems are confronting the use of instructional materials in our country, some of the revealing in the fore going includes:

**Lack of Funds:** This factor seems to be the reason why most educational institutions are unable to acquire relevant teaching equipment and materials. It has also adversely affected the quantity of timing and these product (students-teacher) will lack the opportunity to learn and use new techniques in teaching. There are sophisticated instructional materials that can make learning easier and faster such as computer aided programmes but lack of funds has effect on its importation.

**Teachers' Knowledge and Technical Knowhow:** Educational communication and technology is a fairly new area of importance in education, especially in developing communities like Nigeria. It is a highly technical field, and to understand how it can affect teaching and learning situation. In developing countries today, the whole idea and its implementation is still strange to a larger percentage of the functionalities. However, the use instructional materials has come to mean so much to education. Without the teacher who is knowledgeable enough, instructional materials cannot create change and progress. Teachers' knowledge have a great impact on the effective application of instructional materials, this is because the teachers understand the sequential presentation of the instructional gadgets so as to stimulate the interest of the learners. E.g. a teacher, who is not computer literate, would find it difficult to

manipulate the materials. The materials might be wrongly used, thereby creating a wrong impression for the students.

**Unavailability of the Materials:** Another pressed issue about instructional materials for use is that, the materials are grossly lacking in the schools. Adewoye (1997) revealed that materials are grossly lacking in this country. She reported that there was scarcity of both printed and audio visual materials. The few schools with some of these materials are seen to be in poor condition.

**Environmental Factors:** Part of the application of instructional materials process is the target population for whom the materials are to be used and setting. For example, a teacher who is to use an electronic gadget like computer to teach in their schools may experience shortage of electricity or in schools where population is high and the materials cannot go round these factors makes it difficult for instructional materials to be used effectively.

**Poor Maintenance Culture:** Materials available for teaching are poorly handled by both the teachers and students. Teaching and learning is affected by the non-availability of resource room for the proper keeping of both the locally manufactured and the commercially purchased ones, thereby limiting its use as the time needed.

#### **Solution to Problems Associated with the Use of Instructional Materials**

**Improvisation of instructional materials to replace commercial ones:** Amina (2003) defined instructional materials as materials used to impact knowledge into the mind of learners. These materials can either be visual or audio-visual. She also defined improvised instructional materials as those teaching and learning materials produced using locally available resources with the help of experts. She went ahead to link improvisation to innovation. Innovation in education is an act of producing new things that are important and will enhance teaching and learning effectively. Improvisation is the act of making teaching and learning materials from locally available resources. Olarewaju (2003) and Eniaeyu (2005) viewed improvisation as the art of substituting for the real thing. Another important view about improvisation is by Alonge (2008) who sees improvisation not only as the production of import – substitution of materials or real thing; but as an activity in promoting curiosity, alertness, endurance and perseverance, all of which are indispensable to teaching and learning as a whole. Johnson (2004) defined improvisation and the process of productive thinking that can generate tangible outcome or product. He further defined that improvised productivity means the quality of output in the form of socially and technologically recognized products. The products in improvisation must be less in cost when they are compared with commercially constructed ones. Improvisation could be modeling of an original object or copying the construction of an object or equipment to a high degree of accuracy.

Learning is a permanent change in behaviour. Learning is assumed to have taken place if a change is confirmed. This could be through the new activity the learner is able to perform. Instructional material simply means the teaching device that helps the teacher clarify, establish, correlate and coordinate various concepts, interpretation and application. Balogun (2008) as a proverb says, “A picture is worth a thousand words.” Instructional materials are learning resources that help in teaching and learning processes, which helps the teacher to deliver the lesson during the course of teaching. They can also be referred to as relevant and cheaply selected tools and equipment that are usually incorporated in the teaching and learning process in order to boost or enhance effective teaching and learning activities in the classroom or any other environment where formal education system takes place, for example, national teachers institute (NTI, 2007). In a nutshell, improvised instructional materials are teaching materials design and produced from available local materials to enhance effective teaching and learning in schools.

Improvised instructional material is a method or way of minimizing loss of equipment and materials and an inexpensive method of widening the scope of inquiry. Improvised instructional materials are meaningful attempts towards finding suitable substitute or alternative to conventional

science materials. Due to the state of our nation's economy; teachers, students, school authorities and communities should engage in improvising instructional materials in order to:

- a. Develop in students and teachers adequate skill for improvisation
- b. This will generate interest and motivation for Indigenous technology
- c. Have practical and physical links between science and theory
- d. Eradicate the menace of lack of or inadequate instructional materials
- e. Achieve the set out educational objectives through the use of improvised instructional materials in teaching (Zarewa, 2000).

Improvised instructional materials make teaching concepts more interesting to both students and teachers in the classroom; improvised materials are usually simple and may not have perfect finishing, because they are made from local raw resources that are acceptable to students. Improvised instructional materials help students realize that some subject has to do with ordinary things and will possibly motivate them to carry out experiments and learning activities themselves using such improvised materials (Johnson, 2000).

Zarewa (2000) as cited by Johnson (2009) noted that no matter how rich and generous educational authorities might be, they are not always in position to provide their schools with all the materials they may need. Therefore, the schools, students and teachers might be obliged to make the most of what they can get or construct from locally available raw materials. For instance, certain things like herbarium press, aquarium tank and wooden splint can easily be improvised by competent teachers instead of waiting for supplies by educational authorities. According to Zarewa (2009), improvisation helps change students' attitude towards learning. This portrays that if we can encourage students to partake in the improvisation exercise, they stand a better chance of having a positive attitudinal change towards learning. Therefore, students should be engaged in the collection, assembling, fixing of some basic and non – injurious items for improvisation. This will relate the abstract concept, theories and laws taught to the real life situations.

1. **Teacher Professional Development:** This is essential if technology provided to schools is to be used effectively. Carlson (2009) stated that spending scarce resources on informational technology hardware and software, for instance, without financing teacher professional development as well is wasteful. He further stated that principals are charged with the responsibility of developing their teachers through workshops, seminars and conferences. Experiences around the world in developing, industrialized, and information-based countries have shown that teacher training in the use and application of technology is the key determining factor for improved student performance. Teachers remain the gatekeepers for students' access to educational opportunities afforded by technology; they cannot and should not be ignored. Moreover, providing technical training to teachers in the use of technology is not enough but making them professionals in operating sophisticated gadgets step by step to students. (Johnson, 2000).

2. **Funding:** The availability of fund can boost the availability of instructional materials as it allows the school to purchase commercial materials. The presence of fund gives the school the edge of getting audio visual aids that seem expensive. The government and school owners are responsible for providing students with current and standard materials to be used.

### ***Effects of Instructional Materials on Secondary School Students***

Instructional materials are essential and significant tools needed for teaching and learning of school subjects to promote teachers efficiency and improve students' performance. They make learning more interesting, practical, realistic and appealing. They also enable both teachers and students to participate actively and effectively in lesson sessions. They give room for acquisition of skills and knowledge and development of self- confidence and self -actualization. Ibeneme (2000) defined instructional materials as those materials used for practical and demonstration in the class situation by students and teachers. Ikerionwu (2000) saw instructional materials as objects or as devices that assist the teachers to present a lesson to the learners in a logical manner.



In his own perspective, Fadeiye (2005) saw instructional materials as visual and audio-visual aids, concrete or non-concrete, used by the teachers to improve the quality of teaching and learning activities in schools. Agina – obu (2005) submitted that instructional materials of all kinds appeal to the sense organs during teaching and learning. Isola (2010) also described instructional materials as objects or devices that assist the teacher to present their lessons logically and sequentially to the learners. Abdu (2014) acknowledged that instructional materials are such used by teachers to aid explanations and make learning of subject matter understandable to students during teaching learning process.

In the same vein, Obanya (2004) asserted that several studies carried out in some areas in Nigeria indicated that the results of senior school certificate Examination were completely bad in nearly all subjects offered by the students. He stressed further that only about 10% of candidates “meaningfully passed” the examination. Abdu (2011) asserted that non availability and inadequacy of instructional materials are major causes of ineffectiveness of the school system and poor performance of students in schools. Ahmed (2003) confirmed that in most secondary schools in Nigeria, teaching and learning take place under a most un-conducive environment without access to essential materials. Eniyewu (2005) posited that it is very important to use instructional materials for instructional delivery to make students acquire more knowledge and to promote academic standard. In addition, Ajayi (2001) stressed the importance of availability of instructional materials to achieving effectiveness in educational delivery and supervision in the school system. Ogbodah (2003) alerted on the gross inadequacy and underutilization of instructional materials necessary to compensate for the inadequacies of sense organs and to reinforce the capacity of dominant organs. He noted that school teachers should try their possible best in the provision of locally made materials in substitution for the standard ones to promote their lessons. Enaigbe (2009) noted that basic materials such as textbooks, chalkboards and essential equipment like computers, projectors, televisions, and videos are not readily available in many schools. Jekayinfa (2010) observed that instructional materials help teachers to teach conveniently and the learners to learn easily without any problem. They asserted that instructional materials have direct contact with all sense organs. Kocharr (2012) supported that instructional materials are very significant teaching and learning tools. He suggested the need for teachers to find necessary materials for instruction to supplement what textbooks provide to broaden concepts and arouse students’ interest in the subject. According to Abolade (2009), the advantages of instructional materials are that they are cheaper to produce, useful in teaching large number of students at a time, encourage learners to pay proper attention and enhance their interest.

However, Akinleye (2009) attested that effective teaching and learning requires a teacher to teach a student with instructional materials and use practical activities to make learning more vivid, logical, realistic and pragmatic. Umoren (2009) agreed that instructional materials are indispensable to the effective teaching and learning activities. Ekpo (2004) also supported that instructional materials are always useful in supporting the sense organs. According to Joshua (2007), instructional materials are all things that are used to support, facilitate, influence or encourage acquisition of knowledge, competency and skills. Abu – Raheem (2014) encouraged teachers to improvise instructional materials because they, in great measure, enhance learners’ full participation in the lesson, give room for inquiry, problem-solving, discussion and clarification of issues and ideas among students and teachers. Reveire (2006) noted that improvisation is a valuable teaching tool. Afolabi (2009) identified non-availability, inadequacy and non-utilization of learning materials as a result of teacher’s poor knowledge as factors responsible for the use of lecture method.

### ***The Role of Principals in Promoting Utilization of Instructional Materials***

Principals are now more than ever focused on students’ achievement, while still retaining their traditional administrative and building manager duties. Because of this, principals typically work ten hours in a day and many believe the job is just not “doable” as it is configured now (Usdan and Podmostko, 2007).

It is estimated that principals are second only to teachers in their impact on student achievement. A highly effective principal can increase his or her students’ scores up to percentile points on standardized tests in just one year. Principals can also affect other students’ outcomes including reducing

student absence and suspension and improving graduation rates. Principals in low achieving or high poverty, minority schools tend to have a greater impact on student outcomes than principals at less challenging schools. Although the gains in student achievement temporarily slow whenever there is a new principal, the impact is felt more at the most challenging schools (Michael, 2009).

The role of the principal has changed dramatically over the past couples of decades. It wasn't too long ago that a principal's primary tasks were limited to making sure the buses ran on time, ordering supplies and addressing personnel issues. Nowadays, a principal's main responsibility is students learning since the administrative and building management duties have disappeared.

Today, principals must spend much more time in classrooms than in the office and they focus on curriculum and instruction as well as collecting and analyzing and using data to improve students' achievement. On top of that, they are expected to rally students, teachers and the community to help achieve these goals (Usdan 2007). Among numerous duties of a principal include:

- a. Principles of effective instruction
- b. Curriculum design, implementation, evaluation and refinement
- c. Principles related to implementing a strategic plan
- d. Information sources, data collection and analysis
- e. How to inspire others with the vision that all children can learn at high levels.

Several researchers show that principals play a significant role in student achievement. One study found that an average school if led by a highly effective principal formed 10 percentage points higher than if that school was led by an average principal (Nully, 2003). A more recent study found that based on value added scores, having a highly effective principal increased students achievement from the 50<sup>th</sup> percentile to between the 54<sup>th</sup> and the 58<sup>th</sup> percentile in just one year, depending on the type of analysis conducted. Effective principals typically do the following:

### **Set Goals and Provide a Vision**

The foundation for being an effective principal is establishing a school-wide vision and commitment to a high standard and success of all students. This is essential in creating a culture of academic achievement for all students within a school. Doing so means the principals spell out high expectations and rigorous learning goals all students are expected to meet. Not only is setting goals important but instilling the belief in teachers that they can reach these goals too. Principals, who are able to inspire their teachers in this way, have a small but positive impact on student achievement.

- **Principals As Instructional Leaders:** Principals that provide teachers with instructional leadership improve student achievement. A principal's instructional leadership has about three to four times more impact on student achievement than transformational leadership, where principals focus on motivation and improving the morale of their teachers (Robinson, 2008). Principals show instructional leadership by setting a culture within the school that supports continual professional learning and by taking specific steps to support individual teachers. Some studies have shown that principals provide instructional support by encouraging teachers' collaboration, ensuring the use of instructional materials in schools and emphasizing the value of research-based strategies and applying them effectively to their school. School principals should be positive, enthusiastic, have their hand in the day to day activities of the school and listen to what their constituents are saying. Effective principals are available to teachers, staff members, parents, students and community members.

- **Principals Shape the Vision of Academic Success for All Students:** Researchers who have examined education leadership agree that effective principals are responsible for establishing a school wide vision of commitment to high standards and the success of all students. The principal creates a climate hospitable to education. Effective principals ensure that the schools allow both adults and children to put learning at the centre of their daily activities. The principal ensures safety and orderliness, as well as less tangible qualities such as a supportive, responsive attitude toward the children and a sense by teachers that they are part of a community of professionals focused on good instructions. The principals' job is also to engage parents and the community; many principals work to engage parents and others outside immediate school.

- General administrative duties include the professional management of a school; time tabling; admission and placement of learners; financial management and accountability; keeping a school journal; management and maintenance of the physical structure and equipment; management of hostels, if one is attached to the school; disseminating and storing departmental circulars and other relevant information to staff members timeously, and handling correspondence received at school.
  - **Student Discipline:** A large part of any school principal's job is to handle student discipline. A principal listens to all sides of an issue without jumping into conclusion collecting as much evidence as he/she can. A principal's role in student discipline is much like that of a judge or a jury. The principal decides whether the student is guilty of a disciplinary infraction or not and what penalty should be enforced. An effective principal always documents discipline issues, makes fair decision and informs parents when necessary.
  - **The Principal Performs the JOB of an Evaluator:** Most principals are also responsible for evaluating their teachers' performance. An effective school has to have effective teachers and the teacher evaluation process in place to make sure that the teachers in the school are effective. The principal should spend as much quality time in classrooms as possible and gather information each time he/she visits, even if it is just for a few minutes. Doing this allows the evaluator to have a larger collection of evidence of what actually goes on in the classroom, than a principal who has had minimal visits to a classroom. A good principal should inform their teachers of their expectation and then offer suggestion for improvement if those expectations are not being met.
  - **The Job Performance of the Principal is Hiring New Teachers:** A vital part of any school administrator's job is to hire teachers and staff that are going to do their job correctly. Hiring the wrong person can cause huge problems down the line while hiring the right person makes your job easier. The interview process is extremely important while hiring a new teacher. There are many factors that play into a person being a good candidate for a principal to hire. These factors include teaching knowledge, personality, sincerity, excitement towards the profession, etc.
  - **The Principal's Job is Developing Implementing and Evaluating Programmes:** Developing, implementing and evaluating the programme within your school is another large part of a school principal's role. According to Murray (2009), a principal should always be looking for ways to improve the students at school. Such effective programmes that have proved to be effective elsewhere should be developed within the school. He further stated that programmes within the school should be evaluated every year and tweaked as necessary and that if a principal notices a programme has become stale and students are not showing much growth, then it may be necessary to review the programme and make some changes to improve the quality of that programme.
- Padre (2009) stated that achieving academic excellence requires that the school principal works collaboratively to direct and nurture all members of the school staff hired by the board of directors and to communicate effectively with parents. Inherent in the position are the responsibilities for scheduling, curriculum development, extracurricular activities, personnel management, emergency procedures and facility operations. He further listed the functions and responsibilities of a principal which include:
- Establish and promote high standards and expectations for all students and staff for academic performance and responsibility for behaviour.
  - Manage, evaluate and supervise effective and clear procedure for the operation and functioning of the school consistent with the philosophy, mission, values and goals of the school including instructional programmes, extracurricular activities, and discipline systems to ensure safe and orderly climate, building maintenance, programmes evaluation, personnel management, office operations and emergency procedures. Ensure compliance with all laws, board policies and civil regulations.
  - Supervise the instructional programme of the school, evaluate lesson plans and observe classes (teaching, as duties allow) on a regular basis to encourage the use of a variety of instructional strategies and materials consistent with research on learning and child growth and development.
  - Establish procedure for evaluation and selection of instructional materials and equipment, approving all recommendation.
  - Establish a professional rapport with students and staff that have their respect.

- Maintain visibility with students, teachers, parents and the board.
- Establish procedures that create and maintain attractive, organized, functional, healthy, clean and safe facilities, with proper attention to the visual, acoustic and temperature.
- Supervise in a fair and consistent manner effective discipline and attendance systems with high standards, consistent with the philosophy, values and mission of the school. Ensure a safe, orderly environment that encourages students to take responsibility for behaviour and creates high morale among staff and students. File all required reports regarding violence, vandalism, attendance and discipline matters.
- **Professional Growth:** Principals are constantly focusing on developing their teachers and other staff members. However, to be an effective principal, he or she needs to continue to grow as well, including staying up to date on best practices.
- **Planning Staff Meetings:** Time is a factor in all aspect of being an administrator. Apart from the whole or half staff development days, staff meetings are usually restricted to 30 minutes before and after school. A principal is responsible for mapping the exact time that will suit any activity. Ekundayo (2006) also affirmed that school administration involves managing, administering the curriculum and teaching, pastoral care, discipline, assessment evaluation and examinations, resource allocation, costing and planning, staff appraisal, relationship with the community, use of practical skills necessary for surviving the policies of an organization such as decision making, negotiation, bargaining, communication, conflict handling, running meetings and so on. By implication, the principal of a school is a planner, director, controller, coordinator, organizer, adviser, and a problem solver (Maduabum, 2002). The principal is the person on whose shoulders rest the entire administration, success or failure of the school. The principal identifies and sets goals and objectives of the school, which, of course, must be in line with the national objectives, analyses task and share responsibilities of the staff according to specialization and expertise. The following are, therefore, the duties of the principal in ensuring that the multi-faceted problems facing the secondary school system do not hinder the efficient service delivery towards producing quality output in this 21<sup>st</sup> century.
- **Management of School Finance:** The principal is the chief executive and accounting officer who is entrusted with the responsibility of controlling the revenue accruing from the school and ensuring judicious utilization of PTA levy. In order to raise fund to complement the efforts of the government, the principal can establish a very good rapport with the parents' teachers association, Board of Governors, old students association and non – governmental organizations for fund raising.
- **Provision and Maintenance of Physical Facilities:** Principals must fully concern with the physical environment and other facilities around the school. Dilapidated building, leaking roofs, abandoned projects, overgrown trees and lawns, dingy and dark buildings, etc have demoralizing effect of people, especially the adolescents (obiada, 2006). As a result, the principals have the responsibilities of ensuring that these facilities are in good shape. Even with the meager resources at their disposal, they have the responsibility of providing teachers and other instructional staff with necessary resources for effective teaching.
- **Principal as a Motivator:** Ajayi (2006) opined that a school principal must not only be trained in the act of administration, but must be well acquainted with the principles that guide and control administrative processes. As the chief executive, the principal owes a duty to modify the attitude of the staff and motivate them to put in their best at achieving educational goals through effective teaching-learning process. Motivation enhances job performance.
- **Principal As a Curriculum and Instructional Supervisor:** The functions of school principal as a supervisor include: obtaining and making available for teachers all educational information, visiting classrooms often to observe his/her teachers teaching; inspecting teachers note and class registers, diaries and instructional materials offering professional advice for their improvement.
- **Principals Perform the Job of a Change Facilitator:** When it comes to efforts to improve the quality of school, the principal is the critical person in making change occurs. According to uyanga (2008), since a school is known to be an instrument of change and reforms in the society, the principal is said to be the pivot of such reforms and changes. This responsibility is very obligatory and the principals are expected

to deploy the managerial skills in adapting to this change and injecting it in the school system. The principal is the key supporting agent for change.

### ***Role of Principals in the Effective Utilization of Instructional Materials***

Splinne et al. (2003) defined instructional leadership as an influence relationship that motivates, enables and supports teachers' efforts to learn and change their instructional practices. Daresh (2003) also defined instructional leadership as direct and indirect behaviours that significantly affect teacher instruction and, as a result, student learning. Glang (2006) confirmed this by saying that a good principal should focus on instructions because they know that by doing so they can directly affect students learning. According to sparks (2002), instructional leaders in schools should keep focus on the core learning processes and organizational and structural changes required to produce high levels of learning performance for all students and staff members. As a leader of a school, it depends upon a principal to play a crucial role in influencing and improving the academic achievement of the learners. The principal is expected to be the chief learning officer.

The principal, as an instructional leader, actively promotes more effective practices in the teaching and learning processes and recognizing instructional priorities rather than by serving as a school manager (Ariyo, 2012). Researchers identified different instructional leader's role in their studies. For instance, McEwen (2009) has identified instructional leader's role as establishing instructional goals, being resourceful for staff, creating school culture and climate conducive to learning, communicating the vision and mission of the school, setting high expectation for staff developing teachers leaders, maintaining positive attitudes towards students, staff and parents in the same way. Leithwood and Riel (2005) noted four characteristics and practices for effective principals which seem to matter the most: setting directions that secure the physical environment and achieve high academic standards, developing people to use effective instructional strategies and interventions, redesigning the organization to include teachers and parents in decision -making, and managing the curriculum effectively by staffing the school with teachers who align with the mission and direction and buffering them for distraction.

According to Shola (2009), the principals need to have the competence to create a shared vision and clear goal for their schools and ensure continuous progress towards achieving the goals; support the implementation of high-quality standard based instruction that results in higher levels of achievement for all students; provide opportunities for all members of the school community to build their capacity and participate in important school decision; allocate resources and manage school operations to ensure safe and productive learning environment and engage parents and community members in the educational process and create an environment where community resources support student learning, achievement and well-being. This implies that role of instructional leadership is pivotal in creating a conducive learning atmosphere in the school.

The position of the principal is a well-established position of the chief executive who provides instructional leadership by co-ordinating curricular, co-curricular programmes and is responsible for the general administration of the secondary school. The principals, being instructional leaders, are at the vantage position to supervise, monitor, assess, evaluate and disseminate current information on educational issues and modern teaching technique to teachers in order to stimulate them for scholarship and best practices in curriculum delivery. The principal's role is to guide teachers away from thinking of themselves as "masters of their classroom" and towards a more collaborative style to work together (gbenga, 2009). He further stated that principals in schools assume a proactive role in supporting teachers' instructional efforts. They communicate directly and frequently with teachers about instructions and students' needs. They are in charge of the right attitude of lesson delivery. They also check if the material to be used is of importance to the topic to be taught. Schools with great principals supervision, allow for teachers to do it right. This is made possible through thorough check of lesson plans. Schools where supervision is poor and weak, teachers sometimes don't make use of materials and it will bit your imagination that teachers in such schools don't even prepare lesson plan. Thorough principal supervision gives room for students' outstanding performance in standardized test (Shola, 2009). In public schools, most times the unavailability of materials is a problem and principals also are

usually not on sit to monitor teachers' attitude to work and this results to high level of failure in standardized test like West African Examination Council (Marafa, 2010). The use of instructional materials in schools show seriousness in lesson delivery.

Regina (2010) investigated the relationship between principal's supervisory strategies and teachers' instructional performance in terms of some variables such as use of instructional materials and discipline maintenance. The population of the study comprises all principals (192) and teachers (3492) in Delta north senatorial district. The sample was made up of 92 principals and 349 teachers who were selected using the multi stage sampling technique. Structured questionnaire was used to collect data from the subjects. Hypothesis one which states that there is no significant relationship between principals supervisory strategies and teachers instructional performance in terms of instructional materials was rejected. The researcher found out the study is in accordance with the view of Akinwunmi (2002) that instructional materials are indispensable in teaching as they will help teachers perform effectively in their job. Therefore, adequate teaching depends largely on principals supervisory strategies coupled with the availability and usage of instructional materials as they facilitate the understanding of abstract concepts and opportunity for the learners to manipulate objects in the classroom.

Ponjul (2009) believed that schools with greater principal supervision allow for frequent classroom visit, they provide attention to teachers' efforts and progress in instructional matters. This allows principals to gain knowledge of what is occurring in classrooms and the materials being used, effective principals frequently observe teachers instructional methods. The principals' opportunities to interact with teachers on instructional issues increase as principals become a frequent visitor in the classroom. Venesky (2010) added that a study revealed that in schools where at -risk students were making academic progress, principals take proactive role in the instructional process. They address teachers' basic, professional, and individual instructional needs when they:

- a. Support teachers instructional methods,
- b. Allocate resources and materials,
- c. Visit classroom frequently,
- d. Provide feedback on instructional methods and technique,
- e. Use data to focus attention on improving the curriculum or instruction.

Adewale (2009) asserted that schools, that lack effective supervision, allow for weak educational practice, careless practices in schools, and lack follow up in class and actually what is going on. Kajang (2011) reaffirms that to make a difference in the academic progress, effective principals do the same for teachers what effective teachers do for students.

Contemporary scholars such as Duke, Tucker and levy (2006) have observed that the lack of effective principals in schools lowers students' achievement because the absence of quality leadership often results in ill- adapted school organization and programmes. Rowan (2008) stated that school principal, through his/her activities, roles, and behaviours in managing school structures does not affect students' achievement directly, in the ways teachers do. However, classroom teaching may be impacted by principals' actions, such as setting and clearly communicating high expectations for all students, supervising teachers' instructional performance, evaluating student progress and promoting a positive teaching and learning environment.

### ***How to Enhance the Role of Principals in Promoting Effective Utilization of Materials***

The secondary school system is designed to prepare students for higher education and useful living in the society (Federal Republic of Nigeria: NPE, 2004).The attainment of these lofty goals hinges on effective co-ordination and control of teaching and learning activities by school principal. As an instructional leader, the principal occupies an important position and plays pivotal role in the management of both human and material resources that are used in the delivery of school curriculum to ensure high quality education for the learners. The ability of the school principal to effectively plan, implement, monitor, evaluate and review educational programmes and activities with teachers will, in no

doubt, ensure sustainable improvement in the teaching learning process and lead to the school success in the pursuit of the set goals.

The need for effective co-ordination in secondary school is based on the assumption that human beings are naturally lazy, dislike work and enjoy pleasures more than work (Mc Gregor, 1960). This is counter – productive to the achievement of set educational goals. Since the teachers are the hobs on which the education system rests upon, their roles cannot be under-estimated if quality education is to be achieved. It is, therefore, expedient for the school principal to set achievable standards and goals which all teachers must strive to attain in the delivery of the school curriculum. The teachers must be focused and well skilled in curriculum planning, utilization of instructional materials, content delivery, and continuous assessment of learners, classroom management and record keeping to promote meaningful instruction and effective development of learners in the cognitive, affective and psychomotor domains of learning.

In the pursuit of quality instruction and student learning outcomes, it is equally imperative to put in place adequate control mechanism so that the set goals can be achieved. The principal, being an instructional leader, is expected to be the driving force for effective curriculum delivery. The principal must device appropriate measures to ensure that all the teachers comply with the laid down rules and regulations in the performance of their instructional tasks. This is not to witch-hunt the teachers, but to make them committed, self-regulated, goal-oriented, and have high expectations for the learners. Despite the awareness of the goals of secondary education by the principals and teachers, it is still highly surprising that students' learning outcome in terms of their performances in the senior school certificate examination conducted by the West African Examination Council is relatively low. The effective principal has the skills to co-ordinate and control issues related to teachers' effectiveness when it comes to the utilization of instructional materials by doing the following:

- **Thorough Supervision:** Improving supervision of instruction is of great concern to educational authorities worldwide. Effective instructional supervision is considered vital for school effectiveness. Yuma (2013) says supervision is one of the roles of principals that are concerned with the improvement of instructional effectiveness. This means that to have effective teaching and learning within the school, the principal needs to supervise the process. He stated that the principal is characterized by frequent classroom visitation, supervision; effective feedback to teachers and involvement of staff in school based activities. Principal is instrumental in successful curriculum implementation in schools. According to wehmeier (2004), supervision is the act of being in charge and making sure that everything is done correctly and safely in our contemporary society. Thus, the principal is the key to successful curriculum implementation in school through supervision of instruction.

Khan (2009) asserts that as an instructional leader, the principal is the pivotal point within the school who affects the quality of individual teacher instruction, the height of students' performance, and the degree of efficiency in school functioning. He makes frequent observation of classroom instruction programme, teachers' involvement in decision making regarding instructional programme, active participation in planning and evaluating the instructional programme. Supervision improves teaching and learning through deliberate emphasis on ways and means of instilling excellence in the quality of instruction.

### ***Problems Facing Secondary Schools in Kaduna State in the Utilization of Instructional Materials***

Shola (2000) stated that there is a need for careful examination of the secondary school system bedeviling the system which has been hindering the system from achieving its lofty goals.

- **Inadequate Funding:** Inadequate funding is one of the obstacles to effective management of secondary education in the country. According to Aghenta (2009), the success of any secondary school depends upon the resources available to it. Money is very important in this respect because by it all other vital elements in the school can be obtained such as school building, purchase of equipment, payment of teachers' salaries and allowances and running expenses.

- **Inadequate Facilities:** School facilities are the materials resources that facilitate effective teaching and learning in schools. Atanda (2005) posited that educational facilities are those things that enable a skillful teacher to achieve a level of instructional effectiveness that far exceeds what is possible when they are not provided. The state of infrastructural decay in many secondary schools in Nigeria is a manifestation of poor funding of the system. He further stated that in most nations' secondary schools, teaching and learning takes place under a most uncondusive environment, lacking the basic materials and thus hinders the fulfillment of educational objectives.
- **Low staff Morale:** Teachers are the center piece of any educational system. No education system can rise above the quality of its teachers. Teachers whose morale is low are not likely to perform as expected in the school system. According to Ajayi (2003), the numerous problems permeating the entire educational system in Nigeria such as cultism, examination malpractice, inadequate instructional materials, drug abuse, indiscipline, persistent poor academic performance of students in public schools and many more, seem to suggest that teachers have not been performing their job as expected. Fadipe (2003) posited that teachers, apart from students, are the largest most crucial inputs of an educational system. They influence, to a great extent, the quality of the educational output. Teachers' irregular promotions, low package, societal perception of the job and many more have dampened the morale of teachers.
- **Poor Supervision of Schools:** Effective instructional delivery and maintenance of standards in the school system are enhanced through regular internal and external supervision. Ayodele (2002) argued that secondary schools are presently supervised by two categories of people: internal and external supervisors. Internal supervision is carried out by principals, vice principals and head of departments, while external supervision is carried out by formal designated officials from the inspectorate division of the ministry of education and various zonal education offices. The primary responsibility of inspectors is to see that high standards are maintained and that schools are run in accordance with laid down regulations. While it has been argued that the principals have been discharging their duties as internal supervisors in some schools, the external supervisors appear non functional as they seldom visit schools to monitor the operations in these schools. This variably hinders effective teaching and learning in schools.

## ***Theoretical Framework***

### **Theories of Leadership**

As the concept of leadership has been studied by various researchers from different perspectives, different theories have emerged. The three key theories of leadership are the trait, Behavioural and contingency theories. Trait theories place emphasis on personal characteristics. They assume that "leaders are born; some people are born with characteristics and skills of leadership". The inherent characteristics include outstanding personality, intelligence, social and communication skills. According to Keith (2009), trait theories suggest that a single leadership style is superior in all kinds of organization. The Behavioral theories focus on interaction between the expectations and perceptions of followers in an organization. They look at what leaders actually do while dealing with subordinates and how subordinates react emotionally and behaviorally.

The researcher sees the contingency theory as the most appropriate to the educational situation. Contingency theories define good leadership as the ability to match the right leadership style with the situation. The situation includes the nature of task, the environment and the characteristics of subordinates. Schools differ from situation to situation and educators differ in their maturity and levels of motivation. There is no good or bad leadership but all depends on the situation. One leader may be good in one situation but poor in another situation.

The principals need to adjust their leadership behaviours to suit the educator's willingness, abilities and confidence as well as demands of the situation; for example, highly motivated and highly matured educators require a delegating style of leadership, while new teachers require a directive style of behaviour. According to Gargling (2009), different situations call for different styles of leadership in order



to promote actions like the use of instructional materials and the teacher becomes satisfied. In support of this view point, Lovell (2004) suggests that the educational organization needs professional behaviour that is characterized by creativeness, originality, adaptability, willingness and competence to take on the risk of leadership.

### **Current Trends in Leadership (Principal)**

The leadership theories determine the leadership approaches. Two approaches can be distinguished, the transactional and transformational leadership. The former, according to Caldwell (2002), entails getting things done by analytical and logical means. The leader classifies the roles and task requirement of subordinate in order to motivate them in the direction of established goals like the effective utilization of instructional materials. Impersonal aspects of performance such as plans, schedules and budget are stressed. The emphasis is placed on commitment to the organization and conformity to its norms and values. Transformational leadership builds on transactional leadership unlike the transactional leaders; it serves to inspire the followers. The leaders and followers lift each other to higher levels of motivation and morality. The leaders pay attention to the concern and developmental needs of teachers. They excite, arouse and inspire followers to put in extra effort to achieve organizational goals. The leaders motivate their followers by appealing to high levels of personal motivation, such as self actualization, by offering followers to learn new skills and to participate in projects that lead to important outcomes. Boove (2003) sees this approach as essential in organizational development because followers are motivated to do more than what is expected to achieve superior performance.

Transactional leadership has been practiced for several years in most traditional schools. The principals determine the goals of the schools and formulate all plans, schedules and procedures to achieve the goals. Educators could not be involved in decision making activities. They were compelled to conform to the values and standards set by principals. Supervision was a vital aspect of principals' role in effective utilization of instructional materials. Such an approach does not contribute to the professional development of educators.

### **Principal and Learners**

Louis (2004) made two important claims. First, "leadership is second only to classroom instruction among all school related factors that contribute to what students learn at school." Second, "leadership effects are usually largest where and when they are needed most." Without a powerful leader, troubled schools are unlikely to turn around. In addition, emotional intelligence displayed, for example, through a leader's personal attention to an employee and through the utilization of the employee capacities, increases the employee's enthusiasm and optimism, reduces frustration, transmits a sense of mission and indirectly increases performance. Anderson (2004) agreed to the assertion that leadership practices help develop people:

- a. Stimulate them intellectually
- b. Provide them with individualized support
- c. Provide them with appropriate model.

Principals strengthen school culture when they clearly and consistently articulate high expectation for all students. Principals can modify organizational structures, for instance, by changing schedule to ensure that teachers share common planning time and use that time to discuss improving instruction. This kind of restructuring also reinforces the use of collaborative process among teachers.

### **Principal and Parents**

Crave (2001) stated that parents' involvement in school leadership is symbiotic in nature. She further stated that some members can be given advisory position. For effective management, it is imperative that principals should accept the members of the community as equal partners in the management of school and to work closer with them. According to Wilkinson (2000), the leader makes

activity meaningful for those he relates to, through communicating and implementing the ideas, norms, attitudes and beliefs which are central to the performance of the organization.

The above discussion on leadership proves that a good leadership style is the key to supervision of teaching and learning in our schools. It means that principals should adjust themselves to suit the work environment and maturity levels of educators. The transformational leadership style proves that educators, parents and learners have a place in the leadership of schools. Good management creates a climate which allows stakeholders to contribute in all activities at school. This provides a healthy measure of excitement and challenge and a feeling of responsibility which enhances supervision of teaching and learning.

### **Supervision and Staff Development**

Supervision has been described as a process in which the leader oversees staff activities, offers assistance to followers, gives direction and encourages them to contribute actively towards the accomplishment of organizational goals. This contributes to staff development. It is on this gravity that supervision and staff development are regarded as similar. The definition by Daresh (2009) looks at staff development as focusing solely on the educator's professional growth. He further stated that professional growth is enhanced as they are regard staff development as a continuous and comprehensive process that utilizes human development by means of in-service, training, selection of additional staff members with appropriate competence, reassignment of staff members and replacement of staff members.

The above definitions show that supervision focuses on activities by the leader that contribute to the achievement of organizational goals, while staff development is growth oriented, that is, encompassing activities leading to staff professional growth.

### **The Role of Principal and Supervision**

Louis (2005) points out that the development of teachers should be closely related to the overall planning and review process of the school management and should take account of the various staff and staff roles. The principals and senior staff have important roles to play in ensuring staff development. He further stated that principals should make judgments on what the school is providing and on what changes required to make the work more effective in the light of educational needs; they should monitor and evaluate that such training suits the needs of the people.

According to Louis (2008), the principal should improve teacher performances, but he or she also needs to spend more time in the classroom providing direct assistance to teachers. He further stated that the principal should have a clear responsibility to determine a policy for staff development, to create an open, trusting climate, to put cost –proposal in action and to ensure that teachers feel ownership of programmes by being seen to be personally involved. Finally, the above discussion on supervision and staff development shows that staff development programmes should be taken seriously by principals and should be well planned. Staff development programmes form an integral part of supervision of teaching and learning in schools. The management needs to ensure that educators see the need for staff development and be part of planning, and feel the sense of growth and competence by participating in them.

In conclusion, the above discussion of supervision and learning shows the importance of transformation of the education system in our country. With more focus on quality education in Nigeria, there is a shift from an old system to a new system of school management. This is due to new policies that were formulated, which recommend that schools should be led by principals who are transformational and who are able to work closely with all stakeholders in planning and implementing all activities in school. This is marked by a shift from one way communication to two way communications, participation of all stakeholders in decision-making activities and establishment of staff professional development programmes. Supervision of teaching and learning can be effective when there is effective communication between principals and all stakeholders, motivation of educators, learners and parents and good leadership skills demonstrated by principals. The views of various educationists discussed, show that principals have important role to play in ensuring effective utilization of instructional materials.

### ***Related Empirical Studies***

Igu, Ogba and Igwe (2014) investigated the effect of instructional materials on students' achievement in social studies in lower basic education in Nigeria using Ebonyi state college of education Ikwo staff and Christ the king primary school, Ikwo as the case study. The design of the study was quasi-experimental. The population of the study comprised all the students in primary five of the two schools used for the study totaling two hundred (200). Due to the smallness of the number, no sampling was carried out on the population. However, simple random sampling technique was applied to choose the experimental and control groups. The instrument for data collection was social studies achievement test questionnaire. It contained a twenty (20) item multiple-choice questions based on the topics selected for the study. The face and content validity instrument was ascertained by three experts – two from social studies department, Ebonyi state college of education, Ikwo and one from measurement and evaluation unit faculty of education in Ebonyi state university, Abakaliki. Kuder Richardson 20 statistics was used to test the reliability of instrument and it yielded 0.80 which was deemed high enough for the study. The research questions were analyzed using adjusted mean and standard deviation. Analysis of covariance was used to test the null hypotheses. The result revealed that those taught with instructional materials performed significantly better than those taught without instructional materials. Significant cases were assessed using multiple classification analysis to determine contribution of each treatment to the level of significance.

Nwabuwanne c. (2009) also investigated the availability and utilization of instructional materials by basic 7-9 home economic teachers in Anambra state. Six research questions and four null hypotheses were formulated to guide the researcher in carrying out the study. A descriptive survey design was used. The population was made of four hundred and thirty-one home economic teachers in basic 7-9 schools in the state. The whole population was useful as subject for the study. The data collection instrument was a structured questionnaire, comprising a checklist and other items that were designed on a 5- point scale. The data collected were analyzed using frequencies; percentages mean scores and standard deviation to answer the research questions. The test was used in testing the null hypotheses at the 0.05 level of significance. The findings of this study indicated that materials for teaching home economics in basic 7-9 were largely unavailable; there was a low extent of utilization of the available instructional materials by the teachers and the home economic teachers improvised a few of the instructional materials available of teaching. The teacher used students as the main source for improvisation of instructional materials and encountered a variety of teacher, student, and school environment related problems in improvising instructional materials. Findings also revealed that some of the strategies were perceived by the home economic teachers for enhancing the improvisation of instructional materials. One implication of the findings is that effective learning among urban and rural basic 7-9 home economic students might be limited because of lack of instructional materials and the problem of improvising instructional materials.

Yamauchi (2008) also investigated and examined the effect of instructional materials on students' learning and their perceptions of the instruction. A between-groups quasi- experimental study design was used for the purpose of this study. One hundred and eleven students enrolled in a quality food production laboratory class in two different semesters were designed to either the control or experimental group. Both groups received traditional instructor – led orientation sessions about table service and beverage preparation procedures. However, the experimental group was only allowed to access new instructional materials presented on DVD. A set of pre-test and post-test was used to collect data. Test gains scores and students' class performance grades were computed and analyzed to compare students' learning outcomes between two groups. Students perception of instruction were measured with their opinions of instruction, their self reported level of understanding of table and beverage service procedures and level of satisfaction. Results of independent samples t-test showed: (1) students in the experimental group had a significantly higher gain score than students in the control group; (2) no significant differences in students' performance grades between the two groups; (3) two out of the seven questions about students' opinion about instruction had more positive perception responses for students who watched the DVD than students of the control group; (4) no significant differences existed in

students' self-reported level of understanding of table service and beverage preparation procedures between the two groups; and (5) students who watched the DVD had a higher level of overall satisfaction with the instruction than students who did not.

Nsa, Ikot and Udo (2013) in the same vein investigated instructional materials utilization and student's performance in practical agriculture. The study was conducted to determine the effects of instructional materials utilization on the performance of junior high school students in practical agriculture in Ikot Abasi local government area. A sample of 200 students was used for the study. To guide the study, four specific objectives and four null hypotheses were formulated and tested at the 0.05 level of significance. Students' achievement test in practical agriculture was developed to gather data for the study. The instrument was validated by a research expert and the reliability coefficient of 0.80 was obtained using the KR 21. Data were analyzed and hypotheses were tested using t- test and analysis of covariance. The findings of the research indicated that there was a significant difference between the performances of students taught with instructional chart and those taught without it and there was also a significant difference between the performances of students taught with instructional pictures and those taught without it.

Ngozi (2013) also investigated the impact of instructional materials in teaching and learning biology among the students in senior secondary schools in Enugu North local government area. These research questions were reviewed and answered. The research design is survey. The population of the study was 2700 senior students. The sample was 252 senior students. The instrument used was the questionnaire. The instrument was validated by 2 experts in the school of science education. The reliability of the instrument was obtained using test retest method. Data were collected using the instrument. Data were analyzed using mean and percentage. The result showed that in some selected schools materials are not enough to guide and direct learning experiences. The available ones in the school are not frequently used. The extents of usage of these materials are very poor.

Nwike and Onyejebu (2013) investigated the effect of use of instructional materials on students' cognitive achievement in agricultural science in secondary schools of Orumba south local government area. Quasi experimental design was used. The sample comprised 256 SS2 students randomly sampled from five schools drawn from five towns in the local Government Area. The students were divided into two groups- experimental and controlled. An agricultural achievement test of reliability 0.82 was used for the experimental group who were taught using instructional materials, while control group were taught without instructional materials. Data collected was analyzed using mean standard t- test statistics. Findings revealed that students taught with instructional materials performed better than those taught without instructional materials. Also there is no significant difference in the mean achievement scores of male and female students. The null hypotheses of 0.05 level of significance indicated that there is a significant difference between the achievement scores of those taught with instructional materials and those taught without instructional materials.

Jekayinfa (2013) carried out a study on the effect of instructional materials on the academic performance of students in history in Nigeria. For the purpose of the study, data were collected from five hundred and five form 5 history students, eleven (11) history teachers and seven (7) principals in eleven selected secondary schools in Ogbomoso north and central local government areas of Oyo state. Teachers and students in the sampled schools were administered with an investigator – constructed questionnaire. History achievement test was also administered on the students in the selected schools. Results of the study indicated that adequate supply of instructional materials has significant effects on students' performance in history. Furthermore, the results revealed that schools with adequate teacher quality and instructional materials in history showed superiority in achievement on the history test to schools without adequate teacher quality and instructional materials.

Ghanney (2008) investigated the study sought to examine the extent to which instructional materials have been used in the teaching and learning of environmental studies in the primary schools in Winneba. Purposive sampling was used to select 80 respondents comprising 60 environmental studies teachers and 20 pupils drawn from six public schools in Winneba. The main instruments used for data collection were questionnaire and an observational guide. Findings were coded and given qualitative

interpretation with the support of frequency counts and percentages. Major findings indicate that about 83% of teachers in the primary schools rely heavily on the use of only chalkboards and textbooks for lesson delivery on environmental studies as opposed to the use of atlases, globe, objects or artifacts, radio, television and computers. Again, the study revealed that inability of teachers to use instructional materials leads to: pupils becoming passive listeners in class, boredom, poor participation in lesson, lack of interest in the subject, absenteeism and finally poor performance in the subject matter.

Ariyo (2009) carried out a study on the influence of instructional materials in teaching and learning in senior secondary schools. The study is an attempt to look critically into the influence of instructional materials on teaching and learning in senior secondary schools. Five (5) senior secondary schools in Oredo local government area were selected for this research work. The study was based purely on the questionnaire method. Questionnaires were given to students and teachers in various schools sampled. The simple random sampling method was adopted and oral interview was also used by asking verbal questions from teachers. Lastly, the findings indicated that 70% of the respondents strongly agree that instructional materials have a very great influence on the teaching and learning in the senior secondary school and therefore, lack of these materials is a major obstacle on the teaching and learning in the senior secondary school.

Jennifer (2004) also investigated the place of instructional materials in the teaching of social studies in Edo state. The study was conducted to investigate the importance of instructional materials in the teaching of social studies in secondary schools in Edo state. During the study, data were collected from two hundred (200) secondary school students from selected schools by means of questionnaire and it was detected that the place of instructional materials is very important in the teaching of social studies in secondary schools. Findings revealed that 80% of the respondents strongly agree that instructional materials are of great importance. The researcher, thereby, stressed that instructional materials are very key and therefore, should be in any school setting. Furthermore, she also stressed that instructional materials will increase the interest of the students in learning, a development that will enable the child to become a useful person to the society.

### ***Literature Appraisal***

The focus of this study was to investigate the role of principals in the effective utilization of instructional materials among selected schools in Kaduna state. Therefore, this chapter has reviewed topics like the concept of instructional materials, the meaning of instructional materials, the types of instructional materials, the importance of instructional materials, the guidelines for designing instructional materials, the factors guiding the selection of instructional materials, the utilization of instructional materials, the problems associated with the use of instructional materials, the solutions to the problems associated with the use of instructional materials and the effect of instructional materials on secondary school students. The study also reviewed topics like who is a principal, job performance of a principal, the problems facing principals in the utilization of instructional materials, the solution to the problems facing principals in the effective utilization of instructional materials, the role of principals in the effective utilization of instructional materials, the concept of the nature of secondary school, the structure of secondary schools in Kaduna state, Nigeria and the problems facing secondary schools in Kaduna in the utilization of instructional materials. The study also used Jean Piaget theory as a foundation of the research work and also through the related empirical study; it has shown that there is no research on the role of principals in the effective utilization of instructional materials in schools. Hence, this work would fill gaps created in the research in terms of time and place.

## Chapter 3: Research Methodology

### ***Introduction***

The aim of this study is to develop a comprehensive description of the role of principals in the effective utilization of instructional materials in schools in Kaduna state. The survey research will be utilized in this study. Besides that, this chapter will cover several aspects which are research design, the population and sampling, the instrumentation of the measurement, data collection, data analysis and the pilot study that has been carried out.

### ***Research Design***

To gain a better insight into the participants, the role of principals is the effective use of instructional materials. This study adopted survey method. According to connote 2009, survey method is the technique of gathering data by asking questions to people who are thought to have desired information.

The instrument that was utilized to collect data is the structured questionnaire titled 'the role of principals in the effective utilization of instructional materials'. This study used survey method to collect and analyse data to determine the relationship between independent valuables and dependent valuables and further establish the role of principals in the effective utilization of instructional materials.

The methods involved in survey data collection are any number of ways in which data can be collected for statistical survey. These are the methods that are used to collect information from a sample of individuals in a systematic way. (Daniel, 2002)

The questionnaire sought information on the role of school, how principals influence the utilization of instructional materials in schools, the challenges faced by the principals in ensuring effective utilization of instructional materials and also the effective use of instructional materials on academic performance of students in Kaduna State.

An interview was also conducted in order to reflect emotions and experiences. This implies that interviews are conducted with the express aim of finding out what participants think, feel and what they have to say about the roles of principals in the effective utilization of instructional materials.

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

According to Dickson (2009), the population is the 'group' a researcher sets out to study, while Bailey (2008) defined the population as the total of all the units of analysis. He further stated that population is a group of individuals that has one or more characteristics in common that are of interest to the researcher. The population of this research will consist of 100 teachers from 10 different public schools. The target population was both male and female teachers picked from each school. The researcher would have liked to obtain data from teachers and some principals from all schools in Kaduna state.

Areas	Schools	Female Teachers	Male Teachers	Total
Barnawa	Government day Barnawa	5	5	10
Zaria	Government day basawa	5	5	10
Gonin Gora	Government day Gonin Gora	5	5	10
Sabon tasha	Government day yelwa.	5	5	10
Tudun wada	Government day school	3	7	10
Riga chukun	Government day school	4	6	10
Kujama	government day school	5	5	10
Kakuri	Government secondary school	5	5	10
Ungwan romi	government day romi	7	3	10
Zaria	government secondary school gabasawa	5	5	10
Total		50	50	100

Table 1: Public Schools Sampled

The research population will cover 55% of the actual size of the recommended population of some selected schools in Kaduna state.

### **Sample and Sampling Technique**

A sample can be described as a subset of the population. The sample must, therefore, have properties which make it representative of the whole, this means a limited number of element selected from a population to be representative of that population. According to Slavin (2009), the most important principle in sampling is that each member of the population from which sample is drawn should have an equal and known probability of being selected. He further stated that sampling implies taking a portion of the population, making an observation on a smaller group and then generalizing findings to the larger population. The main purpose of drawing a sample from a population is to obtain information concerning that population. It is important that individuals included in a sample constitute a representative cross section of individuals in the populations. There are various types of sampling which include simple random, stratified random, cluster and systematic sampling. For this study, the simple random sampling was used. The sample is a limited number of elements selected from a population to be representative of that population. The sampling of the secondary schools as well as the participants for my study was informed by the purposive preference in-qualitative research. As advocated by Mariam (2009), purposeful sampling is based on the assumption that the investigator wants to discover, understand and gain insight and therefore, must select a sample from which the most can be learned. The sampling technique used in this study was called purposive sampling. It was used to select a sample of 10 educational officers from 10 different public schools from Kaduna State. I chose the participants purposively because each of them was able to give me information on the role of principals in the effective use of instructional materials in schools because of the positions they held within the educations system.

### **Simple Random Sampling**

Simple random sampling was done while selecting the schools from Kaduna State. Walden (2007) supported simple random sampling because all individuals have equal and independent chance of being selected. He further stated that he sees random sampling as suitable and not being subjected to the biases of the researcher. In selecting schools according to simple random sampling, the researcher obtained a list of schools for Kaduna state from the ministry of education. There are over 50 public secondary schools. Only 10 schools had to be selected. The researcher had to select 10 secondary schools from the first 20 local governments on the list.

### ***Instrumentation***

For the study, the survey – questionnaire instruments were used to achieve the main objective of the study. A self-administered questionnaire was distributed to the selected teachers in the schools. The questionnaire given to the teachers aimed to access the role of principals in the effective utilization of instructional materials in schools, it also aims to evaluate the effect of instructional materials on the students' academic performance.

The questionnaire was structured in such a way that the respondents will be able to answer it easily. Thus, the set of questionnaires was structured using the Likert format with a four – point response scale. A Likert scale is a rating scale that requires the subject to indicate his or her degree of agreement and disagreement to a statement. In this kind of questionnaire, the respondents were given five response choices. These options served as the quantification of the participants' agreement and disagreement on each question item.

### ***Validity and Reliability of the Instrument***

In this study, the role of principals in the effective use of instructional materials is undertaken to measure only the effective use of instructional materials. The questionnaire for survey will be systematically constructed with two questionnaires given to the teachers. The teachers will be randomly picked, 10 teachers from each school and all at the rank of education officers in their various schools. One of the questionnaires will serve as a “gold standard” which will already be validated, while the other would be completed by the teachers. This is to ensure that the result of the research is nearest to the truth as much as possible.

### ***Administration and Collection of Questionnaires***

Prepared and typed questions were given out to 100 secondary school teachers in Kaduna state. The respondents were engaged in their various schools mostly on Fridays. The distributions of questionnaires were administered by the researcher and were collected by him personally. All questionnaires were retrieved as the researcher met the teachers one on one. The data had been recorded and updated simultaneously as responses were received. The results had been organized in a spread sheet that had been developed to measure the attitudes from the data of the survey results.

### ***Method of Data Analysis***

The analysis of the survey is processed using descriptive statistical tool such as frequency, simple percentage and mean.



## Chapter 4: Data Analysis & Result

### **Field Performance of the Research Instrument**

This chapter presents the findings, analysis and interpretation of data gathered whose main objective is to find out the role of principals in the effective utilization of instruction materials.

More specifically, the researcher sought to answer the following questions.

Sub-problem No. 1: what roles do principals play in the effective utilization of instructional materials among secondary schools?

Sub-problem No 2: what constraints do principals face as hindrance to effective supervision of utilization of instructional materials?

Sub-problem No 3: how does supervision by principals enhance utilization of materials in instruction?

<b>Administered</b>	<b>Retrieved</b>	<b>Lost</b>	<b>Validated</b>	<b>Invalidated</b>
100%(N=100)	100% (N=100)	0% (N=0)	0 %(N=0)	0% (N=0)

*Table 4.1.1: Analysis of the Performance of the Questionnaire*

The table shows how many questionnaires were distributed and the number of respondents engaged. All questionnaires were turned in.

### **Demographic**

<b>GENDER</b>	<b>FREQUENCY</b>
Male	46% (n=23)
Female	54% (n=27)
<b>Total</b>	<b>100% (N=50)</b>
<b>AGE BRACKET</b>	
35-40	12% (n=6)
41-45	26% (n=13)
46-50	26% (n=13)
51 and above	36% (n=18)
<b>Total</b>	<b>100% (N=50)</b>
<b>MARITAL STATUS</b>	
Single	0% (n=0)
Married	96% (n=48)
Divorced	4% (n=2)
Separated	0% (n=0)
<b>Total</b>	<b>100% (N=50)</b>

*Table 4.1.2: Demographic Characteristics of Respondents*

The table reveals characteristics such as gender, age bracket, and marital status.

This table represents the bio-data of respondents. The Male gender is 23 which indicate (46%), while the female gender is 27 which indicate (54%).

Respondents 6 (12%) fall between the ages of 35-40, 13 (26%) are between the ages of 41-45, 13 (26%) are between the ages of 46-50, while 18 (36%) are between the ages of 51 and above.

Respondent 0 (0%) is single, 48 (96%) are married, 2 (4%) are divorced and respondent 0 (0%) is separated.

### SECTION A

#### *Role of Principals in Effective Utilization of Instructional Materials*

ITEMS	SA	A	U	P	Total
Principals support teachers' instructional method and their modifications of instructional approaches and materials	92%(n=46)	8%(n=4)	0%(n=0)	0%(n=0)	100%(N=50)
Principals allocate resources and materials	54%(n=27)	38%(n=19)	0%(n=0)	8%(n=4)	100%(N=50)
Principals frequently visits classroom for instructional purpose.	56%(n=8)	40%(n=20)	0%(n=0)	4%(n=2)	100%(N=50)
Principals solicit and provide feedback on instructional methods and techniques.	66%(n=33)	28%(n=14)	2%(n=1)	4%(n=2)	100%(N=50)
Regularly check lesson plans.	58%(n=29)	38%(n=19)	4%(n=2)	0%(n=0)	100%(N=50)
Principals encourage teachers to improvise instructional materials.	74%(n=37)	24%(n=12)	0%(n=0)	2%(n=1)	100%(N=50)
The principals discusses feedback with teachers after classroom supervision	50%(n=25)	42%(n=21)	0%(n=0)	8%(n=4)	100%(N=50)
The principals always follow up teachers'.	74%(n=37)	22%(n=11)	0%(n=0)	4%(n=2)	100%(N=50)
Evaluation and selection of instructional materials	38%(n=19)	38%(n=19)	0%(n=0)	24%(n=12)	<b>100%(N=50)</b>

*Table 4.2: Role of Principals in the Effective of Instructional Materials*

The table showed the various roles of principals and how they monitor and supervise the effective use of instructional materials.

- ❖ 92% of respondents strongly agree that principals support teacher's instructional method and their modification of instructional approaches and materials, 8% also agree, while 0% disagrees.
- ❖ 54% of respondents strongly agree that principals allocate instructional materials, 38% also agree that principals allocate resources, while 8% disagree.
- ❖ 56% of the respondents strongly agree that principals frequently visit the classroom for instructional purpose, 40% also agree, while 4% disagree.
- ❖ 66% of the respondents strongly agree that principals solicit and provide feedback on instructional methods and technique, 28% agree, 1% undecided, while 4% disagree.
- ❖ 58% of the respondents strongly agree that principals check lesson plans, 38% agree, 4% undecided while 0% disagrees.
- ❖ 74% of the respondents strongly agree that principals encourage teachers to improvise instructional materials, 24% agree, 0% undecided, while 2% disagree.
- ❖ 50% of the respondents strongly agree that principals discuss feedback with teachers after classroom visitation, 42% agree, 0% undecided, while 8% disagree.
- ❖ 74% of the respondents strongly agree that principals follow up teachers' work after the performance review meeting, 22% agree, 0% undecided, while 4% disagree.
- ❖ 38% of the respondents strongly agree that principals evaluate and select instructional materials, 38% agree, 0% undecided, while 24% disagree.

## SECTION B

### *Constraints Faced by Principals*

ITEMS	SA	A	U	P	TOTAL
Principals busy schedule (time)	68%(n=34)	28%(n=14)	0%(n=0)		<b>4%(n=2)</b>
Lack of storage areas to keep materials	40%(n=20)	26%(n=13)	6%(n=3)	28%(n=14)	<b>100%(N=50)</b>
Lack of fund to purchase materials	70%(n=35)	16%(n=8)	4%(n=2)	10%(n=5)	<b>100%(N=50)</b>
Lack of maintenance culture	52%(n=26)	44%(n=22)	0%(n=0)	4%(n=2)	<b>100%(N=50)</b>
Class size	58%(n=29)	40%(n=20)	0%(n=0)	2%(n=1)	<b>100%(N=50)</b>
Dealing with ineffective staff	44%(n=22)	52%(n=26)	0%(n=0)	4%(n=2)	<b>100%(N=50)</b>
Dealing with practice of previous heads	40%(n=20)	44%(n=22)	6%(n=3)	10%(n=5)	<b>100%(N=50)</b>
Lack of knowledge of their duties as internal inspectors	38%(n=19)	44%(n=22)	4%(n=2)	14%(n=7)	<b>100%(N=50)</b>

*Table 4.3: Constraints Faced by Principals as They Perform Their Duties in Ensuring the Use of Instructional Materials*

The table reveals problems faced by various principals in the course of performing their duties in ensuring effective use of instructional materials

- ❖ 68% of the respondents strongly agree that principal’s major problem is busy schedule, while 28% agree, 0% undecided and 4% of the respondents disagree.
- ❖ 40% of the respondents strongly agree that lack of storage areas to keep materials is a constraint faced by principals, while 26% agree, 6% undecided and 28% disagree.
- ❖ 70% of the respondents strongly agree that the lack of fund is a major constraint faced by the principals, 16% agree, 4% undecided, 10% disagree.
- ❖ 52% of the respondents strongly agree that lack of maintenance culture is a major constraint faced by the principals, 44% agree, 0% undecided, 4% disagree.
- ❖ 58% of the respondents strongly agree that the size of the class is a constraint faced by principals, 40% agree, 0% undecided, 2% disagree.
- ❖ 44% of the respondents strongly agree that dealing with ineffective staff is a constraint faced by the principals, 52% agree, 0% undecided, 4% disagree.
- ❖ 40% of the respondents strongly agree that principals are faced with the problem of dealing with the practice of previous head, 44% agree, 6% undecided, 10% disagree.
- ❖ 38% of the respondents strongly agree that principals lack the knowledge of their duties as an internal inspector, 44% agree, 4% undecided, 14% disagree.

**SECTION C**

***Ways to Solve the Constraints Principals Face in the Effective Utilization of Instructional Materials***

ITEMS	SA	A	U	P	Total
Delegating authority to other member staff	68%(n=34)	32%(n=16)	0%(n=0)	0%(n=0)	<b>100%(N=50)</b>
Creating instructional materials with very cheap materials	70%(n=35)	14%(N=7)	4%(n=2)	12%(n=6)	<b>100%(N=50)</b>
Frequent classroom visitation					
Soliciting for funds from the community or the parent teacher association	44%(n=16)	22%(n=11)	2%(n=1)	32%(n=22)	<b>100%(N=50)</b>
Regularly check lesson plan					
Creating storage facilities for keeping materials	66%(n=33)	32%(n=16)	0%(n=0)	2%(n=1)	<b>100%(N=50)</b>
Keeping a class size that can be managed	58%(n=29)	42%(n=21)	0%(n=0)	0%(n=0)	<b>100%(N=50)</b>
Developing teaching staff on how to use instructional materials	80%(n=40)	16%(n=8)	0%(n=0)	4%(n=2)	<b>100%(N=50)</b>

*Table 4.4: The Ways to Solve the Constraints Principals Face in the Effective Utilization of Instructional Materials*

The reveals ways principals can overcome problems that stand as a barrier to their roles in ensuring effective use of instructional materials.

- ❖ 68% of the respondents strongly agree that delegating authority to other members is a way of solving constraints faced by the principals, 32% agree, 0% undecided, 0% disagree.
- ❖ 70% of the respondents strongly agree that creating instructional materials with cheap materials is a way of solving constraints faced by principals,14% agree, 4% undecided, 12% disagree.

- ❖ 50% of the respondents strongly agree that frequent classroom visitation is a way of solving constraints faced by the principals, 44% agree, 0% undecided, and 6% disagree.
- ❖ 44% of the respondents strongly agree that soliciting for fund from community and parents is a way of solving constraints faced by the principals, 22% agree, 2% undecided, 32% disagree.
- ❖ 72% of the respondents strongly agree that checking lesson plan regularly is a way of solving constraints faced by the principals, 28% agree, 0% undecided, 0% disagree.
- ❖ 66% of the respondents strongly agree that creating storage facilities for materials is a way of solving constraints faced by principals, 32% agree, 0% undecided, 2% disagree.
- ❖ 58% of the respondents strongly agree that keeping a class size that can be managed is a way of solving constraints faced by the principals, while 42% agree, 0% undecided, 0% disagree.
- ❖ 80% of the respondents strongly agree that developing teachers on how to use instructional materials is a way of solving constraints faced by the principals, 16% agree, 0% undecided, 4% disagree.

### ***Discussion and Findings***

Having analyzed and interpreted the data collected for the research work through the administration of questionnaire, it is important to discuss the findings of the research work and evaluate them to the research questions that were initially stated from the beginning of the research.

#### **Research Question 1: The Role of Principals in Effective Utilization of Instructional Materials**

Research question 1 sought to find out the role of principals in the effective utilization of instructional materials. With reference to table 4.3, more respondents strongly agree that principals perform their roles in ensuring the effective use of instructional materials. Principals perform a lot of duties to ensure that teachers perform their jobs effectively. Shola (2009), in her work “principals as chief executive”, stated that principals, being instructional leaders, are at a vantage position to supervise, monitor, assess, evaluate and disseminate current information on educational issues and modern teaching technique to teachers to stimulate best practices in curriculum delivery. She further stated that principals communicate directly and frequently with teachers about instructions and students' needs. They also check if the materials to be used are of importance to the topic to be taught. She added that schools with great principals supervision allow the teachers to do it right. This is made possible through thorough check of lesson plans. (Shola et al, 2009, p 4)

#### **Research Question 2: Constraints Faced by Principals in the Effective Utilization of Instructional Materials**

Research question 2 sought to find out the constraints faced by principals. With reference to table 4.4 most respondents strongly agree that principals are majorly faced with constraints like busy schedule and lack of fund. It is important to note that principals perform numerous duties in schools, thereby making close supervision on teachers a lot difficult. This response is in line with Mark's work (2007) “principal as the head master” where he stated that a school principal's role is a complex mix of leadership and administration. He further stated that school principals are prone to many constraints and they lack adequate facilities along with some other constraints. The efficiency of a school principal in managing schools in such situation effectively exposes the capacity of a skilled school manager (Mark 2007, p 4).

#### **Research Question 3: Ways of Solving Constraints Faced by Principals in the Effective Utilization of Instructional Materials**

Research question 3 sought out to find out ways of solving constraints facing principals. With reference to table 4.5, 80% of the respondents strongly agree that developing teachers in using instructional materials is one way of solving the principals' challenge and 72% of the respondents also strongly agree that checking teachers' lesson plan is also a way of solving challenges faced by principals. Jarolinek (2006), in his work “effective principal”, stated that most principals are responsible for

evaluating their teachers' performance. He further stated that it is the duty of principal to train teachers on how to use instructional materials and that since communication and technology is a fairly new area of importance in education, especially in developing countries like Nigeria. It is a lightly technical area to understand how it can affect teaching and learning. In developing countries today, the whole ideas and their implementation is still strange to a larger percentage of the functionalities. He strongly agreed in his article that teachers can only become knowledgeable in the use of sophisticated materials if they are properly trained. It is the duty of the principals to arrange for developmental programs for their teachers. (Jarolinek 2006, p 2)

### ***Summary of the Findings***

In this chapter the researcher discusses the data of the research against a backdrop of leadership theories that are seen to be underpinning the leadership role of a principal. It emerged that strong instructional leadership is prevailing at the school which is helping the school maintain its good academic performance. It also emerged, however, that like other organization, the principals faced with numerous challenges, hamper the smooth implementations of instructional leadership.

## Chapter 5: Summary, Conclusion & Recommendations

### ***Introduction***

The role of the principal has changed from just being a facility manager to a more dynamic one ranging from checking lesson plans, visiting classrooms, ensuring teachers effectively use instructional materials to deliver their lessons, ensuring teachers use approved textbooks, etc. The modern-day principals ensure that the practices of teachers bring about optimal and high academic performance. The purpose of the study was to investigate the role of principals in ensuring the effective utilization of instructional materials in selected schools. In order to achieve this aim, an empirical research was conducted through questionnaires, administered to 100 teachers from selected secondary schools. The aim of the chapter is to give detailed findings emanating from the study and recommendations based on these findings.

### ***Findings***

The findings from the study were: role of principals in the effective utilization of instructional materials, constraints faced by principals in performing their role, ways to solve the constraints faced by the principal in the effective use of the instructional materials.

### **Role of Principals in Effective Utilization of Instructional Materials in Selected Schools in Kaduna**

The study revealed that principals perform their roles in ensuring the effective utilization of instructional materials. Principals perform a lot of duties to ensure that teachers perform their jobs effectively. The study revealed that principals perform duties like supervision, monitoring, assessing, evaluation and disseminating current information on educational issues and modern teaching technique to teachers in order to stimulate best practices in curriculum delivery. They also check materials to be used. The study also revealed that schools with great principal supervision allow the teachers to do it right which yield greater academic performance among students. The study also revealed that schools with thorough supervision actually perform better in standardized test than schools that are not effectively supervised by principals.

### **Constraints Faced by the Principals in Ensuring Effective Utilization of Instructional Materials in Selected Schools In Kaduna**

The study revealed that principals perform numerous duties in schools, thereby making close supervision on teachers a lot difficult. The study also revealed that principals might be aware of their role as academic managers but problems like, inadequate materials, class size, lack of skilled teachers to manipulate available sophisticated instructional materials and lack of fund stand as a barrier. The study further revealed that lack of fund prevents principals from purchasing or supplying adequate materials, especially in schools with very large population.

### **Ways to Solve Constraints Faced by Principal in Ensuring Effective Utilization of Instructional Materials**

The study revealed that principals can effectively supervise and ensure the proper utilization of instructional materials in schools when they delegate authority, visit classrooms frequently, check lesson plans regularly and develop teaching staff. The principals' job is made easy when teachers are regularly trained and developed on how to use available materials and also ensure that materials needed are always available.

## ***Recommendations***

### **Principals Must Supervise Teachers**

The effective use of instructional materials in schools depends on the extent of staff supervision. Close monitoring, praising for any good work that has been accomplished, encouraging creativity, encouraging team work and involvement of teachers in problem- solving and decision-making activities. Effective communication between the principals and teachers motivates teachers and creates a feeling of acceptance and belonging.

### **Principals Should Delegate Authority Due to Busy Schedule**

Principals should assign head of departments to closely monitor and supervise teachers as they perform their duties in the classroom. Principal's absence due to busy schedule can be replaced by the presence of head of departments and they can carry out tasks like classroom visitation, providing support to teachers in class and ensuring teachers stay constantly on their toes. Good supervision, as we know, brings about improved performance.

### **Principals Should Regularly Organize Staff Development Programme**

People are motivated by work that offers challenges to them and that contributes to self esteem and self actualization. People want to be developed in the work they do. Staff development programmes are very important because through this, teachers are exposed to new instructional technologies like the use of projectors, computers, and digital academic games, etc. These programmes can and will motivate teachers to use available complex instructional materials. The principal should work with educators and formulate staff development programmes. This stimulates interest in educators and contributes to a feeling of ownership.

### **The Government/School Owners**

The government or school owners cannot expect quality Education from schools that are poorly resourced. It has been observed that most schools are overcrowded owing to shortage of instructional materials. In schools where there are no laboratories and libraries, principals and teachers find it difficult to be effective in their delivery. The government and school owners must provide the necessary materials to schools if academic performance is to be improved.

### **In -Service Training for Principals on Supervision and Staff Development**

Supervision of teaching and learning and staff development are important aspects of school management that enhance the quality of teaching and learning in schools. It is the duty of the government and school owners to organize seminars on supervision of teaching and learning. Staff development will improve the quality of teaching if seminars for principals are based on new strategies on supervision of teaching and learning.

### **Schools Must Have a Manageable Number of Learners**

One major problem of effective use of instructional materials is not the availability at times but the probability of materials being inadequate due to class size. Principals should ensure that the number of learners admitted is manageable. Factors such as number of classrooms, instructional materials and other resources should be considered when admitting learners in schools because teaching and learning will be effective when numbers are manageable.

### ***Recommendation for Further Study***

The following area may be considered for future research into the role of principals in the effective utilization of instructional materials.

- a. An investigation to determine to what extent vice principals and heads of department display duties in ensuring the effective use of instructional materials.



- b. A comparative study to examine the role of educational inspectors in prompting and ensuring principals perform their roles in the effective use of instructional materials and how much effect it has on schools about learners' achievement.

### ***Limitation of the Study***

There were several limitations with the study. Although the research has reached its aims, there were some unavoidable limitations. First, because of the time limit, this research was conducted only on a small size of the population who were educational officers in some public schools. Therefore, to generalize the result for larger groups, the study should have involved more participants at different levels. Second, the principals' overloaded work, to some extent, might affect the result of the correlation between the role of principals and the effective use of instructional materials.

### ***Conclusion***

The research has recommended a way forward in ensuring the effective use of instructional materials in schools. It has also highlighted the various roles of the principals in ensuring the effective utilization of instructional materials in schools in Kaduna. Further research is necessary on the role of principals in the effective use of instructional materials in schools.

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# Appendix

National Open University of Nigeria  
Kaduna.

Dear sir/madam,

**Letter of Introduction**

The bearer of this letter is Michael Olugbenga with registration number Nou100031712. The researcher is a final year student in School of Education, National Open University of Nigeria. He is conducting a research on the role of school principals in the effective utilization of instructional materials in Kaduna state. Whatever opinion given, will be used for educational purpose only and will be treated confidentially. Kindly fill the questionnaire.

Thanks for your cooperation.

Yours faithfully,

**Michael Olugbenga**

**Section A: Personal Information**

I: BIODATA

LGA of your school -----

Gender: Male (  ) Female (  )

Highest Qualification: -----

Type of school: JSS (  ) SSS (  )

Experience: -----

**Section B**

Items	Strongly agree	Agree	Undecided	Disagree
Principals support teachers' instructional methods and their modifications of instructional approaches and materials				
Principals allocate resources and materials				
Principals frequently visit classroom for instructional purpose.				
Principals solicit and provide feedback on instructional methods and techniques.				
Principals regularly check lesson plans.				
Principals encourage teachers to improvise instructional materials.				
The principals discuss feedback with teachers after classroom supervision.				
The principals always follow up teachers' work after the performance review meeting.				
The principals' evaluation and select instructional materials.				

*Role of Principals in Effective Utilization of Instructional Materials*

The Role of Principals in the Effective Utilization of Instructional Materials  
among Selected Secondary Schools in Kaduna State, Nigeria

Items	Strongly agree	Agree	undecided	Disagree
Principals' busy schedule.(Time)				
Lack of storage areas to keep materials.				
Lack of fund to purchase materials.				
Lack of maintenance culture.				
Class size.				
Dealing with ineffective staff.				
Dealing with practice of previous head.				
Lack knowledge of their duties as internal inspectors.				

*Constraints Faced by Principals*

Items	Strongly agree	Agree	Undecided	Disagree
Delegating authority to other members' staff.				
Creating instructional materials with very cheap materials.				
Frequent classroom visitation.				
Soliciting for fund from the community or the parent teacher association.				
Regularly check lesson plan.				
Creating storage facilities for keeping materials.				
Keeping a class size that can be managed.				
Developing teaching staff on how to use instructional materials.				

*Ways to Solve the Constraints Principals Face in the Effective Utilization of Instructional Materials*

The book is about how principals can ensure that instructional materials are used by the teachers in the schools. The book also reveals the importance of instructional materials for learning.



Michael Olugbenga is a professional teacher, school administrator and an educational consultant. He has a Bachelor's degree in Health and Physical Education and a Master's degree in Educational Administration and Planning. He is also studying for his Ph.D. in Curriculum and Instruction. He has been a teacher all his life. He has published articles in various journals. He is married to Mrs. Shola Michael and blessed with three fantastic children.



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