EFFECT OF INSTRUCTIONAL MATERIALS ON STUDENT PERFORMANCE IN BIOLOGY SCIENCE IN SOME SELECTED SCHOOLS IN ILORIN, KWARA-STATE

BY

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CERTIFICATION

This is to certify that, this research project was duly carried out by **OLAYEMI Mathew Tunji** and the work has been read, criticized, necessary errors corrected, and subsequently approved as meeting the requirements for the award of Professional Diploma in Education Certificate.

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External Examiner	***Signature***	***Date***

DEDICATION

This project work is dedicated to Almighty God.

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This project work is dedicated to Almighty God whose grace sustains and encourages me from beginning and to the successful completion of my course. It also dedicated to my family for their moral and financial support during the course of the study.

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ABSTRACT

The research work was conducted on effect of instructional materials on student performance in biology science in some selected schools in Ilorin, Kwara-State. A sample of three hundred (300) students and thirty (30) teachers was randomly selected from ten (10) stratified secondary schools in Ilorin, Kwara state. The data collected through the administered questionnaire on the sample subject was analyzed through descriptive statistics of frequencies and simple percentage while all hypotheses were tested at 0.5 level of significance through the use of Pearson Product Moment Correlation Coefficient (PPMC) statistics. The findings of the study revealed that there is significant difference in the opinion of respondents regarding availability, usage and utilization of instructional materials at 0.5 level of significance. Based on the findings it was recommended that adequate instructional materials should be provided for effective teaching and learning process, also the government as a matter of policy should recruit more qualified teachers to teach at junior secondary school level most especially Biology Science.

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CHAPTER ONE

INTRODUCTION

Background to the Study

The utmost importance attached to education in Nigeria was clearly underscored in the National Policy on Education (FGN 2018). The Federal Republic of Nigeria in this policy, adopt education as an instrument par excellence for effecting national development, therefore, schools at various levels are expected to educate future leaders and develop high level of technical and technological capacities needed for economic growth and development (Osokoya, 2016).

Hence, science being the foundation of sustainable development is undeniably and unquestionably the key to national growth and prosperity (Samba, 2015).It is the foundation of scientific and technological breakthrough in any nation of the world. It is in this light that the Federal Government of Nigeria (FGN, 2018) enshrines in the National Policy on Education (NPE) the promotion of science as a means for technological development. Abimbola and Omosewo (2014) viewed science as a body of knowledge, a way of investigating our method about and a way of thinking in pursuit of an understanding of nature. While Honby (2020) previewed science as knowledge about structure and behavior of a natural and physical mud which is based on fact that one can prove Ahmed, Abimbola, Omosewo and Akanbi (2014) also stated that the level of scientific and Okumu, Mutai, Mwangasha, Omolo & Munyeke, 2018). This had resulted to rapid changes taking place in medicine, industry, communication, and Biology. Science as an agent of development plays an important role in bringing about these changes through technological advancement, national wealth enhancement, health

improvement and industrialization (Validya, 2017), this is why scientific and technological breakthrough is usually the goal of any developing nation like Nigeria (Bello, 2015). Biology being a core science subject serves as basis for which most of these technological advancement is built upon.

The search for efficient and effective delivery of instruction to students has always been major concern of science educators. This is so as a result of repeated mass failure recorded in West African senior secondary school examination (WASSCE). Among other factors that could be responsible for this failure, are the instructional materials which definitely must have a significant role to play in teaching and learning processes. Instructional materials are defined by different authors though they convey the same meaning when interpreted. Instructional material could be explained as devices through which knowledge, skills, attitude, ideas, beliefs and values got transmitted to the learner by the teacher in order to ease teaching–learning process.

Akanbi (2017) defined instructional materials as materials designed to enrich the teaching and learning processes and hence contribute to better learning. Leohard (2015), conceived instructional materials as "a wide range of materials and devices, designed to provide realistic imagery and substitute experiences in order to enrich curricular experiences of many kinds". From the afore mentioned meanings of instructional materials, the best way of helping pupils to learn is to bring them face to face with the world which education intends to introduce to them (Mkpa, (2017). He stressed further that one way this can be attained is by using real objects in real life situations for instruction. Where real life situation are not possible, the alternative is for the teacher to

use representations of real life situations. These representations are materials, devices and techniques that help the teacher to make realistic approach to his job.

Whether real or substitutes, these representations have a common goal. They help the teacher to convey the intended message effectively and meaningfully to the learners so that the learners receive, understand, retain and apply the experience gained to reach overall educational goals. Some authors have written to classify the types of instructional materials that may be used in teaching and learning (Ezegbe, (2018), Adjai, (2015) Ukeje, (2014)).

Aromolaran (2015) noted that the lack of material and equipment was a significant problem in the Nigerian education system. The school system is also characterized by the rigidities of centralized curriculum development and a lack of human materials both of which restrict institutions from attempting more innovative and flexible approaches. So as to equip students to succeed at a time of rapid curriculum change in science and technology, the practice of starving schools of equipment and funds needs to cease (Nwana, 2017).

Statement of Problem

The problems militating against the effective teaching and learning are lack of numbers of qualified teachers, inadequate and lack of instructional materials, library facilities to mentions but few. Almost all the concept of Biology Science are taught without using the appropriate instructional materials, which would aid effective teaching and learning processes.

Availability and usage of instructional materials is important to academic performance. Olutola (2019) was categorical in his view noted that the idea of

excellence in any school depends on the goals set for itself, but goals in turn, depends on what the teachers are capable of accomplishing in the teaching-learning process that show a permanent change in the behaviour of the students. It is the opinion of this writer that like in any other practical or skilled subject, availability and usage of instructional materials and other teaching equipment and facilities in Biology Science as a subject are of great importance if the students' academic performance is to be enhanced.

One of the implications of the foregoing is that if the teaching materials needed for teaching skills subjects are not made available to teachers at affordable prices to students where necessary, the teachers and students would be denied of the requisite exposure to such materials. This study was developed to investigate the availability and teacher uses of instructional materials on teaching Biology Science in selected secondary schools in Ilorin Kwara State.

Purpose of Study

The general purpose of this study is to investigate the availability and use of instructional materials for teaching Biology Science in selected secondary schools in Ilorin Kwara State. The study will specifically deal with the following;

1. To determine the availability of instructional materials and their utilization in teaching Biology Science in selected secondary schools.
2. To determine the accessibility of instructional material used in secondary schools.
3. To determine challenges of utilizing instructional materials in teaching Biology Science.

Research Questions

The research questions were designed to investigate the availability and uses of instructional materials for teaching Biology Science. This study will strive to answer the following;

(1) What instructional materials in Biology Science are available and use in most junior secondary schools?

(2) To what extents are the available instructional materials in Biology Science accessible to teachers in junior secondary schools?

(3) What are the challenges in utilizing instructional material in Biology Science in junior secondary schools?

Research Hypotheses

The following null hypotheses would be tested:

Ho_1: There is no significant relationship in the opinion of respondents regarding availability and usage of instructional materials for teaching and learning of Biology Science at junior secondary schools.

Ho_2: There is no significant relationship in the opinion of respondent regarding availability and accessibility of instructional material in junior secondary schools.

Ho_3: There is no significant relationship in the opinion of respondent regarding challenges and utilization of instructional material in junior secondary schools.

Delimitation of the Study

The researcher has narrowed her study to survey the availability and used of instructional materials in teaching of Biology Science in Ekiti LGA. The study has

limited to only junior secondary schools. This is due to limited time frame and financial constraint.

Significance of the Study

The findings of this research would be of great importance to the following:- Teachers, school administrators, policy maker and curriculum planners, students, future researchers, among others.

The findings of this research work would be of great benefits for teachers in because the study would provide information on the importance of instructional materials, as a way of enhancing teachers' access and use of these materials in secondary school. School administrators in secondary schools would benefit from the findings of this study because it would enable them to identify the problems militating against effective teaching and learning of various subject most especially Biology Science.

The finding has the potential to provide information to the policy makers and curriculum development bodies who are responsible for curriculum planning and development on the relevance of instructional materials to curriculum implementation in schools. Furthermore, these bodies may provide the necessary support for the provision of audio-visual facilities and equipment in Nigeria secondary schools.

Furthermore, the findings would prepare the minds of teachers on the need to integrate instructional materials in their teaching and learning. The findings and recommendations of this study would assist the government on the need to provide adequate instructional materials needed for enhancing teachers' performance in teaching and learning Biology Science and other subjects in schools.

Overall, the findings of the study would form a reference point for students and future researchers. Since this research is restricted to the availability and teachers use of instructional materials in teaching and learning in schools, it is hope that the findings and recommendations would make significant improvement in the teaching and learning of Biology Science in Nigerian schools.

Scope of the Study

The scope of the study includes the availability, teachers access to and use of instructional materials on teaching and learning of Biology Science in secondary schools. The study would be limited to 5 junior secondary schools in Ilorin Kwara State.

Operational Definition of Terms

The following major terms and variables are clarified as they are used in the study:

Accessibility: Act of describing the existing condition of a thing at a particular time. This would determine teachers' use of instructional materials for in junior secondary schools.

Experience Teacher: These are teachers who have been teaching for at least five years and above in secondary schools.

Hardware: Is the appliance, which is the physical component that facilitates the conduct of information from the software

Inexperienced/Less-Experienced Teacher: Teachers who have not taught or teach up to five years in secondary schools.

Instructional Materials: These include the utilization of people, materials, facilities, equipment, and procedures to achieve the desired instructional goals and objectives

Resource Centres: These are space or setting where educational materials, human and non-human materials are found. These materials can be designed, developed utilized, borrowed and stored in the centre for instructional uses.

Resource Material/Instructional Materials: They are information carriers that are used by teachers to present, illustrate and explain what is being taught to the student. These include; video, television, radio, overhead projectors etc.

Secondary Schools: These are schools which provide immaterialist education and prepare students for tertiary education.

Software: These are information delivery services; they are raw electronic information used to support effective teaching and learning of Biology Science at junior secondary school level.

Utilization: This refers to the level of application of instructional materials in teaching and learning of Biology Science in a classroom setting.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews the work of the scholars who had conducted researches into relevant issues relating to the present research study.

It is on this premise that the research questions were formulated for the study. The literature review is carried out under the following sub-headings:

- Meaning, Nature, Functions and Classification of Instructional Materials
- The Roles of Instructional Materials in Teaching and Learning Process
- Availability, Accessibility and Utilization of Instructional Materials
- Challenges in Using Instructional Materials
- Summary of the Literature Reviewed

Meaning, Nature, Functions and Classification of Instructional Materials

Instructional materials is a summation of the systems approach based research it is concerned with the facilitation of human learning through the systematic identification development organization and utilization of full range of learning materials and through the management of these materials.

Olarewaju (2015) observed that instructional materials play very significant roles in teaching and learning. They are powerful to convey instructions, when systematically designed developed and utilized. Also, they are capable of motivating learners to learn, when the learner's need interest and attentions are marched to the materials. They provide appropriate feedback and thus facilities learning.

There are varieties of instructional materials available in world today. These could be classified into three (3) categories namely. Audio, visual and multi-sensory materials.

Audio: This is a medium instructional practice that appeals to the sense of hearing, but the most commonly used tool for the job is the spoken word. Gadgets for magnifying and reproducing audio sound include radio set, record player, reel to red audio tape, cassette player/recorder (Uto, 2014:54).

Visual(s) this could be regarded as a medium that appeals to sense of sight in teaching/learning situation. These are things that one can see, feel, or tough either projected. They could be either dimensional, or 3- dimensional, 2-D visual include charts, flannel graphs still or flat pictures slides and 3-D visual includes realia and models. The non-projected visuals neither need the use of battery not electricity before they function adequately well.

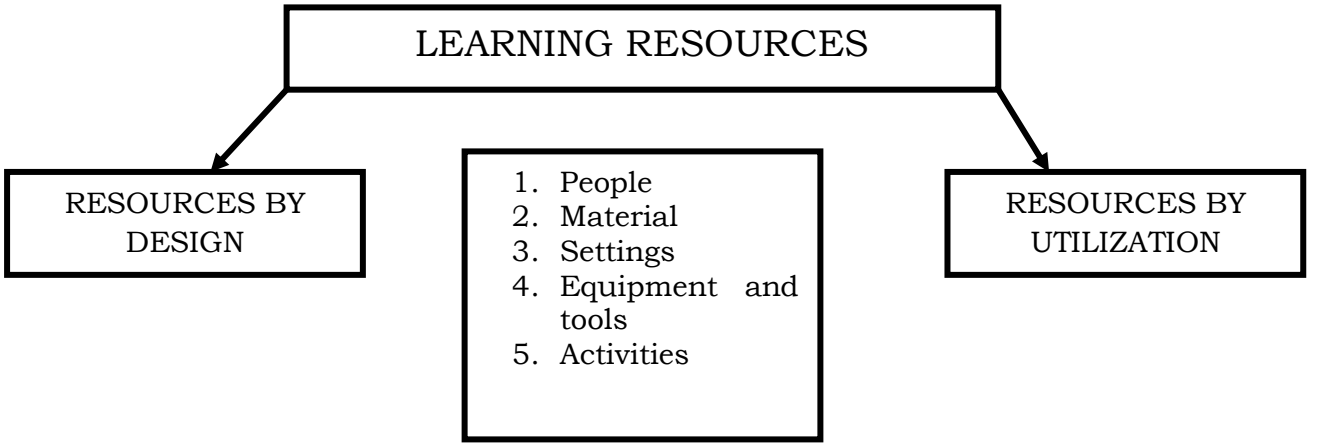
Audio: This deal with transmission of voice and usually with telephone with the use of quality voice transmission technology.

Video: Each participant here will be in a well equipped room at different locations having in the room microphone, studio camera, TV monitor screen and all necessary studio broadcasting gadgets. Computer conferencing: This deals with print out exchange of discussion between the participants at different locations. Others are electronic mail, hyper text, video text these equipments serve different purposes and can be well adapted into our educational system.

Audio-visual materials: An audio-visual material enables learners to hear and see detail of instructional process, which enhance their learning. It is a medium in

instructional practice that appeals to more than one sense organ at the same time, with a view to motivate and sustain learner attention, thereby improving their learning capabilities. They are materials, which make it possible for involvement of at least two of the sense of sight, hearing smelling testing or torching while decoding a message. These categories of materials include message transmitted via television set, video tapes motion film/picture, computer base learning, interest, CDR are included in audio visual or materials.

Educational materials are things used to meet educational need, it include anything which can be used as an object of study or stimulus to the students it is an aid to teacher materials which include books, newspaper, magazines, all variety of audio visual materials, models, real objects, specimens, resource persons and the teachers or experts who of course is the manager of learning materials. Learning materials are in five categories namely: Peoples, materials, equipment and tools, settings and activities. Some materials are developed and use in education. Example of such is in figure 1 which shows learning materials in educational technology as adapted from Salami (2016).



Adopted from Usman (2015); Availability, lecturers' access to and use of instructional materials.

Instructional resource is therefore educational materials which is capable of increasing the student potential towards learning and teaching (Salami, 2014). Instructional materials are materials or materials of form of materials that the teachers and the learners used in the teaching-learning situations to improve the quality and quantity of instruction. Other terms used to refers to these materials or materials are audio-visual materials, teaching aids instructional materials, educational materials, curriculum materials, educational materials etc (Ajayi, 2020).

The teaching of instructional materials used in the formal educational setting includes graphics, photographic, audio, print-scripts writing and design of a whole instructional system which is usually referred to as an integration of set of materials, equipment, method and personnel performing efficiently and functioning to accomplish one or more learning objectives.

In all, the aim of the development and production is facilitate the achievement, hence orientation towards the intended learning outcome inform of effective course creation, course, course maintenance and course transmission. The producer or developers of the materials this needs some knowledge and stalls to enable him function effectively in his programme.

Rosell (2018) identified a number of materials and activities that the can be incorporated into an educational function. He gave the following example. Reading textbooks and articles from pointed materials, examine diagrams and photographic, viewing films and coloured slides, handing real objects and models, studying

demonstration materials, listening to audio tapes, conducting actual simulated experience, discussing subject matter with other student and teachers. Resulting from the above the categorized materials into five group namely:

1. Printed materials
2. Project materials
3. Audio-inputs
4. Real objects and
5. Human interaction

Brown and Strygler (2017), define educational resource materials as "learning materials used to develop skills of inquiry and facilitate effective understanding in the classroom interaction" teaches need to be properly trained and equipped with necessary skill required in handling and used of these instructional materials to translate information into print, visual, audio-visual and realistic forms to improve communication in the classroom.

Education resource materials therefore stand to pivot the educational programmes and its implementation to achieve the intended educational outcome, their uses in school in teaching and learning process to facilitate an appropriate learning outcome (Salami, 2014).

Concept of Biology

Biology is a subject that spreads across every aspect of human life, from the day of conception till death. Biology does not only serve as fundamental or requirement for further science study ,but helps an individual to understand himself and the natural

things in his environment. According to Adegbite (2015), Biology is defined as the basic science that deals with the study of living things.

Biology is a natural science that deals with the living world, that is, how the world is structured, how it functions, what these functions are, how it develops, how living things came into existence, and how they react to one another and with their environment (Umar, 2017).It is a prerequisite subject for many fields of learning that contributes immensely to the technological growth of the nation (Ahmed, 2016). This includes medicines, pharmacy, nursing, Biology, forestry, biotechnology, nanotechnology, and many other areas (Ahmed & Abimbola, 2017).

Biology is introduced to students at senior secondary school level as a preparatory ground for human development, where career abilities are groomed, and potentials and talents discovered and energized (Federal Republic of Nigeria, 2019). The quality and quantity of science education received by secondary school students are geared towards developing future scientists, technologists, engineers and related professionals (Kareem, 2017). Biology as a science subject is a foundation for pursuit of careers such as medicine, food science, zoology, botany, pharmacy, and even Biology among others in the tertiary institutions.

Ahmed and Abimbola (2017) submitted that biology is beneficial to human being in many ways which include promoting understanding of relationships between humans and their physical environment, stimulating interest in biology based hobbies and many more. In a study by Oluode (2015), various reasons were given for the need to study plants and animals The reasons are that plants and animals are useful to us as human in many ways .These ways include feeding, medicine (various kinds of herbs

gotten from plants serve the purpose of performing one curative function or the other, in the body when taken in different forms), shelter, furniture, nutrition and health, hide and skin. Also biology revealed the fact that carbon dioxide is needed to be excreted or expelled out for the human body to carry out day to day living activities. Hence, the importance of biology are too numerous to be mentions.

Based on the submission of different researchers such as Mwirigi (2017, Muraya and Githui (2017), Inyega (2015) noted that biology plays a key role in industrialization and other sectors of the economy and shows that biology is an important area of study, as it is those areas that has revealed facts and has contributed immensely to the technological development and advancement in Nigeria. All successes recorded in other fields of study is dependent on the fact revealed by the studies carried out in the field of biology ,hence when there's no biology there's no world Adeyemi(20 15).

Studies have shown that secondary school students are exhibiting low interest in Biology (Esiobu, 2015). This low interest of students in biology has been traced to poor achievement in examinations. In our match towards scientific and technological advancement and need nothing short of good achievement in biology at all levels of schooling. Unfortunately, achievement of students in biology at the end of the secondary school has not improved in the last decade (Umoinyang, 1999). Folorunso (2018) has linked poor achievement trend in biology particularly to the lack of instructional resources in schools due to poor funding of schools. The poor funding of schools has hindered the principals from providing the teachers with adequate instructional resources.

The Roles of Instructional Materials in Teaching and Learning Process

Materials is plural word for medium which has attracted many definitions from different authors. According to Adegbija (2015), materials is the totality of materials we put together to carry information. This means that, a medium or materials is or more vehicle through which information are moved from the sender to the receiver. However, a medium becomes instructional or educational, when it is used for the purpose of instructional or for educational purpose. This made Salami (2014) to submit that, resource materials are integrated into the classroom instruction as aid to teaching and learning for organized presentation of instruction and sequentially appeal to human sensory organs to increase perceptual ability and stimulate human reasoning.

Based on the above reasons, any medium to be used for instruction or as an educational medium must possess some required qualities or attributes if not, such a medium or materials will not be appropriate for use as instructional medium, attributes required of a medium to make it qualify as instructional materials include capital of such medium to show objects in motion, in colour and in three dimensional forms. It can also be related to the provision of printed works, spoken words, visual and auditing stimuli to psychological response. In his own categorization, Yusuf (2020) mentioned instructional materials to include, print, chalk and chalkboard, graphic materials, realia, still pictures, mode and multi-materials presentation. He explained further that, a print material is the oldest materials in educational which are useful for information or motivation purpose.

Examples of such print materials are textbooks, periodicals, encyclopedia, newspapers and magazine etc.

However, chalk and chalkboard are used to present instructional content as indicate sketch book and they are essentially temporary for delineating idea, instructional materials has diverse of contribution role in the process of teaching and learning, the importance according to Salami (2014) are highlighted as follows:

- It provides many instructional techniques to solve teaching and learning problems.
- It helps to provide a rational method of selection of instructional materials which facilitate effective and functional teaching and learning this enhance development and effective management of education.
- Materials motivate the learners to learn with relatively easy.
- It facilitate easy learning and recall and enhances the standard of perform of the teacher through effective materials integration in the classroom instruction.
- It collaborates and enhances cooperative learning and provides scaffolding to support higher level thinking, and increase learner independence.

Since teaching learning are usually an attempt at problem solving, it is therefore required that consideration should be given to factors of interaction, conditions and constraints, materials and efforts, person and personnel, people and procedure, essential to fulfill and facilitate the achievement of the desirable educational outcomes. It is therefore very essential, that the objective to be achieved is un-ambiguously specified and analyzed. Materials to be used are appropriately itemized and logically and sequentially planned and utilized.

The following are different type of materials from which a medium or combination of materials can be selected from these include:

1. Printed Materials/Electronic

These include the following: Close circuit television films (16mm, 32mm etc) film strips opaque queered transparency slides teaching machine television videos computers.

2. Audio

These include the following: Amplifiers cassettes earphones grainnophones. Language laboratory loud speaker microphones stereo system tape recorders phonographic radio.

3. Non-Projected Visual

These include:

a. Educational Ward (I-dimensional): Adhesives bulletin boards chalkboard flannel graph boards magnetic board plastic graph

b. Pictoral (3-dimensional objects)

These includes: Demonstration dramas displays exhibits and field trips. Home made television modules/globes stimulators and game.

c. (2-dimensional objects)

These includes: flip chart mobiles poster sketches still pictures wall chart

d. (printed text (2-dimensional):

these includes: Books, brochures charts, course manuals handouts leaflets programmed instruction correspondence.

4. Audio-Visual Materials

These includes: Animals artifacts television video system drama/ demonstration film (8mm, 16mm, 35mm).

5. Realia

These includes: Exhibits Field traps Real objects

6. Resource Persons

These include: Professionals e.g. Doctors, Lawyers, Accountant etc. administrators, teachers, extension workers, trainers etc specialist or community resource person e.g. chiefs, legislators, community

leaders, politician
industrialist etc.

It is equally important that teachers are aware of the role and relevance of the instructional materials to instruction. Westnya and Adegbija (2017) summarized the relevance of instructional materials to education as follow:

1. Development of counting thought in learning.
2. Making learning more permanent
3. They appeal to all categories of learners
4. Arouse of both interest and attention of learners
5. Provision of concrete basis for conceptual thinking for learners.
6. Contribution to the growth of meaning
7. Offering of reality of experience and contribution to efficiency, depth and variety of learning.
8. They are unbiased and do not discriminate with regard to age, status, ethnicity, religion etc.

It is however very important that despite the fact that the number of instructional materials that can be used to enrich construction are in exhaustive, select for enriching their instruction match their instructional objectives and that such "medium will equally be appropriate and convenient for the teachers to operate (Westnya, 2017).

Availability, Accessibility and Utilization of Instructional Materials

In teaching and learning of situation, it is agreed that instructional materials are important because they help teachers to enhance the quality of instructions. Availability of suitable instruction materials in good supply and in rich variety and range is essential

in education and especially for the achievement of curriculum objectives Ibitoye (2018) noted some of the advantage of instruction materials in heighten motivation for learning provide freshness and variety, appeal to students varied abilities, encourage active participation, give needed reinforcement and widen the range students experienced. Dale (2020), Ofoefuda (1996), Ocho (2017) noted that some instructional material used in schools are:

a) The Chalk Board: The chalk board is instructional material. It can be adopted for large group instruction, both inside the class room and outside the classroom. It can be use all the subjects at all level of our system.

b) The Bulletin Board: This is simply a medium of passing information to the students. It is a valuable teaching tool, it is use in the classroom to motivate and supplement lesson and the basic principle of using this board is to:

i) Locate the bulletin board at a strategic position

ii) Good lighting of the display is essential

iii) Provide artificial lighting where natural light is inadequate

iv) Avoid clouding the board with too many materials

v) Have a variety of materials to maintain internally

vi) Use brief clear caption and good lettering through illustration presents.

vii) Relate the materials to class discussion and Chart.

According to Ocho (2018) charts are combination of such picture: graphic, numerical verbal materials, which together are most likely to present clear visual summaries of important process or relationships. The term chart can be applied to several different types, they may be classified according to use, functions or similarities

of constructions. Specific charts can be designed for special purpose, for instance, a reading chart to assist readers to associate words with pictures a word reading charts to motivate group pictures into reading and to assist in developing eye-fixation of movement skills.

Purpose of Chart: Eya (2020) highlighted the following purpose of chart

(I) To show relationship by means of pictures facts, figures. Or statistics

(II) To represent materials symbolically

(III) To summarize information

(IV) To show continuity in progress.

(V) To presents abstract ideas in a visual form

(VI) To show the development of structures

(VII) To encourage the use of other instructional materials.

(VIII) To create problems and stimulate thinking.

The position now however is that most secondary schools do not have instructional materials. Apart from the sad situation, most teachers were not trained in the use of available materials.

Eze (2017) note that the federal government has recognized the importance of instructional materials and this informed the establishment of education technology centre at Kaduna. A good Biology Science teacher should be able to teach the subject in a likely and stimulating manner.

In a bid to find alternative of making instructional materials available for use, Dike (2018) observed that a creative teacher can construct some of the needed instructional materials and a well teach students how to construct these materials.

Okpala (1999) noted that if audio-visual materials are properly utilized, they will enable the teachers to achieve the following:

(a) Reduce verbalization.

(b) Humanized and utilized the subject matter.

(c) Stimulate self-activity, make new topics interesting

(d) Supply concrete basic conceptual thinking.

(e) Increase ability of retention

(f) Develop keen observation

(g) Foster creative imagination

(h) Lessen the burden of teaching/supporting view.

Most secondary schools do not have instructional materials. Apart from this state of affairs, most teachers were not trained in the use such material. It is therefore, logical to believe that even the teacher training colleges, the materials do not exist or that the ones they have are outdated and obsolete. In a study on effective utilization visual aids in Biology Science, Bridge (2017) pointed out that teachers need to increase the knowledge in the field of Audio- Visual material and use them to make their lessons attractive and interesting to students.

Hence, in the selection and use of instructional resources in teaching process of Biology Science in the Nigerian secondary school, the above factors should be at the back of the mind of the teachers in order to avoid himself with advantages of using appropriate resources at his disposal in selecting the needs of the students.

Challenges in Using Instructional Materials

Oyedele (2018) emphasized that in everywhere, teachers need to make the fullest use of materials. She noted that one of the reasons why available materials are not used before, many teachers in schools and colleges is that the teachers lack the necessary skills to operate them. They therefore, agreed that training is also necessary in this area. Obi (2014) highlighted the problems of lack of time in the school time table for effective utilization of instructional materials she pointed out that the present practice of 35 minutes and two periods in a week does not augur well for business subjects. She also opined that for effectiveness and efficiency in classroom and thorough supervision to be achieved the number students in class should be fifteen. Time has always been a major constraint in the effective utilization of instructional materials most of these materials consume a lot of time to set up and dismantle within the allowed time on the time table.

There are many challenges in using instructional materials. These challenges include:

a. **Funds*:*** Ocho (2015:296) observed that "to create suitable environment for teaching and learning and produce the materials and equipment for teaching, financial outlay is a necessity". Ukeje (2019:39) highlighted the centrality of financial provision in the advancement of educational objectives, when he observed that the "issue of educational financing is clearly the central pivot". This is so because the vital issue of the nature, quantity, quality and efficacy of educational system largely depend on the level as well as the appropriateness and management of the financial provision.

b. **Lack of Accurate Statistical Data of the Teaching Materials*:*** Accurate statistical data of teaching materials are very important in the educational sector. Proper records of teaching materials (human and material) will help in effective management utilization and achievement of educational objectives. Some administrators fail to provide accurate and reliable data on the number of staff, learners enrolled and even materials available. These militate against effective management and utilization of teaching materials. Unreliable information on the number of teachers, learners and materials available affect planning and decision making.

c. **Poor Maintenance Culture*:*** Facilities and instructional materials are not adequately maintained. Some administrators prefer building new classroom instead of maintaining the old ones. Laboratories and their equipment are allowed to waste, text books and other instructional materials are allowed to rot away in the cartons, instead of displaying them on the shelves for easy retrieval and usage. The management and utilization of these teaching materials are not encouraging. There is need to re-dress the situation for effective learning to take place.

d. **Policy on Maintenance, Management and Utilization of Teaching Materials*:*** Policy provides guidelines on the type of action to be taken on any issue. Where there is no policy, administrators will act without a guide. Ehiametalor (2018:308) noted that "in Nigeria, there has not been a clearly defined policy on maintenance culture, either in educational infrastructural facilities or instructional materials". This implies interlay, that lack of policy on maintenance; management and utilization of teaching materials affect the achievement of educational goals and objectives.

e. **Inadequate Facilities and Instructional Materials*:*** Students learn better when the facilities like buildings, comfortable seats for teachers and students, equipment, electricity and good water supply and instructional materials like good libraries with books, visual and audio-visual materials are available. When these facilities are lacking, learners cannot learn well and these affect the achievement of educational objectives. The available teaching materials should be managed and utilized properly.

f. **Capacity of Teachers to manage and use Teaching Materials*:*** Most teachers are unable to update their knowledge through exposure to conferences, workshops and seminars. They do not have access to current journals, textbooks, internet facilities. They, therefore, rely on their old textbooks, notes and materials. This lack of exposure on the part of the teacher affects his/her management and utilization of teaching materials. He/she impacts outdated knowledge to the learners. The teacher should be capable of managing and using teaching materials for effective learning to take place.

g. **Allocated Time*:*** This is a big challenge in the utilization of teaching materials. In the school time table, the time given for teaching and utilization of teaching materials are very short. In fact, the teacher concentrates on the theoretical aspects and pays less attention to practical aspects. This affects the performance of the learners. The teaching-learning processes will be teacher centered instead of learners centered as stipulated in Federal Republic of Nigeria's (2018:9), National Policy on Education that "educational activities shall be centered on the learners for maximum self-development and self-fulfillment".

h. **Overcrowded Curriculum*:*** When the curriculum is overcrowded with topics, management and utilization of teaching materials become difficult. The teacher will be

rushing to cover the topics in the curriculum and no attention will be given to teaching materials in the class. According to Ivowi (2015), the consent of the curriculum is satisfactory though overloaded. The issue is not the large content presented to the learners but the availability of time and materials for the coverage of the content. This implies that, when the curriculum is overloaded, management and utilization of teaching materials become ineffective.

Summary of the Reviewed Literature

In the review, the types of instructional materials were identified and these included printed and references materials, graphic materials, display materials, project materials, audio and other visual and community resources. The characteristics of instructional materials were also identified as including the following appeal to senses (sound and sight), attract and hold attention, flexibility, simplicity, visibility, clarity, accuracy, sufficiency, purposefulness etc. Also, the importance and uses of instructional materials in our educational setting were treated. This is because, they are of prime importance to both dull and bright students as they aid learning by aiding the sense of seeing, hearing etc., making lesson more interesting, directing teaching to its goals, arousing students interest and motivating them to learn and develop the sense of imagination and comparison.

The factors affecting the instructional materials usage were discussed. Among which included number of learners or students involved, the space of time available, facilities and materials available, interest and ability of Biology teachers and effectiveness of instructional materials. Also, the problems militating against effective use of Biology instructional materials were equally treated which included emotion and

feelings, self concepts or personal or audience perception, educational level of the learners or students' cultural background, motivation, etc. Some of the criteria for selecting and evaluating instructional materials were treated as seen or observed in our secondary schools or as related to the materials which included purpose, availability and durability, appropriateness and cost effectiveness.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter discussed the method and procedures employed in execution of the study. It analysis the sources and techniques used in the collection of data. Specifically, it discussed the following sub-headings:

- Research Design,
- Population, Sample and Sampling Techniques,
- Instrumentation,
- Validation of the Instrument,
- Reliability of the Instrument,
- Procedure for Data Collection, and
- Data Analysis Techniques.

Research Design

Descriptive survey method was adopted for the study. A descriptive research describes the situation of things or events the way they are. According to Opadokun (2014), a descriptive research describes systematically a situation or an area of interest factually and accurately. Hence, this study intends to conduct a survey study on the availability and use of instructional materials on teaching and learning of Biology Science in Ekiti Local Government Area.

Population of the Study

The target population for this study is all junior secondary schools teachers and students in Ekiti Local Government Area of Kwara State. The population size of the

teachers is three hundred and eighty seven (387), 78 Biology Science teachers with student population of three thousand eight hundred and eighty nine (3889) Junior Secondary Schools (JSS) (Kwara SUBEB, 2014).

Sample and Sampling Techniques

A sample is listed number of elements selected from a population as a representation of the population (Ndagi, 2018). Therefore, the sample of this study was comprises of ten (10) junior secondary schools selected randomly. A total of thirty (30) teachers, three (3) from each of the sample schools was selected through stratified random sampling techniques. Also simple random sampling technique was use to select three hundred (300) students, thirty (30) from each of the sample school. In all a total of 330 respondents would make up the sample of the study.

Research Instrument

The instrument that was used for collection of data in this study is questionnaire. The instrument is divided into two sections. Section A is designed to obtain information about demographic data respondents.

Section B contains 18-items relating to the concepts of the topic in which the respondents were expected to respond to using Likert Rating Scale of Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD).

Validity of the Instrument

The instrument was submitted to two lecturers and experts in measurement and evaluation for necessary corrections, suggestions and amendments. This is to ensure the face and content validity of the instrument. However, the corrected version was submitted to the project supervisor for final approval before the administration.

Reliability of the Instrument

Reliability of an instrument according to Olawumi (2020) is defined as the degree of consistence of a test instrument. Thus in order to determine the reliability of the instrument, the instrument was administered to ten (10) teachers in junior secondary schools outside the target population twice within an interval of two weeks. Pearson product moment correlation coefficient was used to determine the reliability index of the instrument, which give 0.78 as reliability index.

Procedure for Data Collection

The researcher was obtained a letter of introduction from the department which was submitted to the appropriate authorities within the sample schools seeking for the approval for the researcher to carry out the research on the sample subject.

The copies of the questionnaire will be administered personally by the research. The researcher will seek permission from the teachers and school authorities before the administration of the questionnaire is done. Filled and completed questionnaire will be collected from the respondents by the researcher after completion before leaving the school.

Data Analysis Techniques

The collected data was analyzed using frequency count and percentage in order to answer the research questions raised for the study, while all hypotheses shall be tested at 0.05 level of significance using Pearson Product Moment Correlation (PPMC) statistics.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

This chapter aims at analyzing and discussing the major findings that come into being from the data collected from the field through the use of questionnaire.

Data Analysis

The following table showed the distribution of respondents.

Table 1: Distribution of respondents on the basis of Gender (Teachers).

Gender	**Frequency (No)**	**Percentage (%)**
Male	13	43.3
Female	17	56.7
Total	**30**	**100**

Result in table 1 show that 13 (43.3%) of male teachers participated in the study while 17 (56.7%) are the female teachers sampled.

Table 2: Distribution of respondents on the basis of Gender (Students).

Gender	**Frequency (No)**	**Percentage (%)**
Male	135	45.0
Female	165	55.0
Total	**200**	**100**

Result in table 1 show that 135 (45.3%) of male teachers participated in the study while 165 (55.0%) are the female teachers sampled.

Table 3: Distribution of respondents on the basis of qualification (Teachers).

Qualification	Frequency (No)	Percentage (%)
B.ED/B.SC	11	36.7
HND	6	20.0
NCE	10	33.3
OND	3	10.0
Total	**30**	**100**

From the table above, it shows that the teachers with qualification there NCE qualification there 10(33.3%) while 11(36.7%) have B.ED/B.SC, 6(20.0%) unit HND and 3(10.0%) and teacher with Ordinary National Diploma (OND).

Table 4: Distribution of respondents on the basis of working experience.

Working Experience	Frequency (No)	Percentage (%)
0–3 years	6	20.0
4–5 years	12	40.0
6–10 years	6	20.0
10 years and above	6	20.0
Total	**30**	**100**

The table shows that 6(20.0%) of the teachers have spent 0–3 years in service, 12 (40.0%) with the highest with 4 -5 years teaching experience while 6(20.0%) and 6(20. 0%) have spent 6–10 years and 10years and above in service respectively.

Research Questions

RQ_1: What instructional materials in Biology Science are available and use in most junior secondary schools?

Table 5 Summary of respondent responses regarding the available instructional materials

S/N	ITEMS/STATEMENTS	SA (%)	A (%)	SD (%)	D (%)
1.	The school provides adequate and relevant materials for teaching of Biology Science.	29 (8.8)	50 (15.2)	13.5 (40.9)	116 (35.2)
2	Instructional material such as; chalkboard, bulletin board are available.	98 (29.2)	82 (25.8)	70 (21.2)	77 (23.2)
3.	There are resource centres in the school which support the use of materials for teaching, learning processes.	35 (10.6)	23 (6.97)	89 (27.1)	183 (55.5)
4.	Most instructional materials available in the school were obsolete and not relevant in teaching of Biology Science.	40 (12.1)	64 (19.4)	96 (29.1)	130 (39.4)
5.	Uses of instructional materials provide effective focus for student in Biology Science.	196 (59.4)	74 (22.4)	48 (14.5)	12 (31.5)

Table 5 above shows that 29(8.8%) strongly agrees to the item 1, 50(15.2%) agreed while 135(40.9) and 116(35.2%) were with disagree and strongly disagree responses. On item 2, 98(29.7%) strongly agreed, 85(25.8%) agreed while 70 (21.2%) and 77(23.3%) were with disagreed and strongly disagreed. On item 3, 35(10.6%), strongly agree 23(6.97%) agreed 89(27.1%) disagreed and 183(55.5%) strongly disagree.

In response to item 4, 40(12.1%) strongly agree 64(19.4%) agreed, 96(29.1%) disagree while 130(39.4%) strongly disagreed, also on item 5, 196(59.4%) strongly agreed that instructional material provide effective focus for student in business study, 74(22.4%) agrees, 48(14.5%) disagreed and 12(3.6%) strongly disagreed.

RQ_2: To what extents are the available instructional materials in Biology Science accessible to teachers in junior secondary schools?

Table 6 Summary of respondent's responses regarding the accessibility of instructional materials

S/N	Statement/Items	SA	A	SD	D
		(%)	(%)	(%)	(%)
6.	Instructional materials provided by the schools were constantly accessed and utilized by Biology Science teachers.	82 (24.8)	53 (16.1)	131 (39.7)	64 (19.4)
7.	Teachers' lack the skill to use the available instructional material.	130 (39.4)	69 (20.9)	68 (20.6)	63 (19.1)
8.	Lack of awareness on the availability of instructional materials prevents their usage for instructional purposes in Biology Science.	160 (48.5)	89 (27.1)	48 (14.5)	33 (10)
9.	Teachers become more effective when they use appropriate materials.	175 (53.0)	60 (18.2)	55 (66.7)	40 (12.1)
10.	Flexibility of instructional material promotes teacher's access and utilization.	40 (12.1)	64 (19.4)	96 (29.1)	130 (39.4)

Table 6 above shows that 82(24.8%) strongly agrees to the item 6, 53(16.1%) agreed while 131(39.7) and 64(19.4%) were with disagree and strongly disagree responses. On item 7, 130(39.4%) strongly agreed, 69(20.9%) agreed while 68(20.6%) and 63(19.1%) were with disagreed and strongly disagreed. On item 8, 160(48.5%), strongly agree 89(27.1%) agreed 48(14.5%) disagreed and 33(10.0%) strongly disagree.

In response to item 9, 175(53.1%) strongly agree 60(18.2%) agreed, 55(16.7%) disagree while 40(12.1%) strongly disagreed, also on item 10, 140(42.4%) strongly agreed that accessibility and utilization of instructional material encourage student to offer the subject and make lesson delivery easier, 84(18.2%) agrees, 48(14.5%) disagreed and 53(16.1%) strongly disagreed.

RQ_3: What are the challenges in utilizing instructional material in Biology Science in junior secondary schools?

Table 7: Summary of respondent's responses regarding the accessibility of instructional materials

S/N	Statement/Items	SA (%)	A (%)	SD (%)	D (%)
11.	Accessibility and utilization of instructional material encourage student to offer the subject and make lesson delivery easier.	140 (42.4)	84 (54.6)	48 (14.5)	53 (16.1)
12.	Teachers do not have basic knowledge and skill for effective utilization of the instructional materials.	49 (14.8)	78 (23.6)	109 (33.0)	94 (28.5)
13.	Time has always been a major constraint in the utilization of instructional materials.	56 (17.1)	39 (11.8)	160 (48.5)	75 (22.7)
14.	Poor funding for the maintenance and acquiring more up-to-date equipment.	170 (55.5)	89 (27.1)	35 (10.6)	36 (10.9)
15.	Lack of accurate statistical data on available instructional material creates some challenges to level of utilization.	65 (19.7)	42 (12.7)	158 (47.9)	65 (19.7)

Table 7 above shows that 49(14.8%) strongly agrees to the item 11, 78(23.6%) agreed while 109(33.0) and 94(28.5%) were with disagree and strongly disagree responses. On item 12, 56(17.1%) strongly agreed, 39(11.8%) agreed while 160(48.5%) and 75(22.7%) were with disagreed and strongly disagreed. On item 13, 170(55.5%), strongly agree 89(27.1%) agreed 35(10.6%) disagreed and 36(10.9%) strongly disagree.

In response to item 14, 65(19.7%) strongly agree 42(12.7%) agreed, 158(47.9%) disagree while 65(19.7%) strongly disagreed, also on item 15, 130(39.4%) strongly agreed, 88(26.7%) agrees, 49(14.8%) disagreed and 63(19.1%) strongly disagreed.

Hypothesis Testing

Three hypotheses were formulated in the course of this research work all the hypotheses shall be test at 0.05 alpha level of significance using Pearson Product Moment Correlation (PPMC) Coefficient statistical tool.

Ho_1: There is no significant difference in the opinion of respondents regarding availability and usage of instructional materials for teaching and learning of Biology Science at junior secondary schools.

Table 8: Summary of PPMC (r) analysis showing the difference in the opinion of respondents regarding the availability of instructional materials in teaching and learning.

Variable	N	Mean	SD	DF	Cal. r-Value	Crit. r -value	Remark P ≤ 0.05
Teacher's professionalism	330	98.42	36.02	228	0.129	0.0083	Significant
Uses of instructional materials	330	87.11	35.84				

p<0.05 level of significance (one tail)

From the table above there is significant difference in the respondent's responses regarding the availability and usage of instructional materials in teaching and learning of Biology Science at junior secondary schools. Consequently, the hypothesis

(HO_1) was rejected since the calculated r-value is greater than the tabulated r-value (i.e 0.129 > 0.0083) at the degree of freedom of 228 and alpha level of significance of 0.05.

Ho_2: There is no significant difference in the opinion of respondent regarding availability and accessibility of instructional material in junior secondary schools.

Table 9: Summary of PPMC (r) analysis of differences in the opinion of respondents regarding accessibility and utilization of instructional material in teaching and learning.

Variable	N	Mean	SD	DF	Cal. r-Value	Crit. r -value	Remark
Teacher's experience	330	110.11	52.11	229	0.139	0.0089	Significant
Use of instructional materials.	330	98.60	53.04				

p<0.05 level of significance (one tail)

From the table above the calculated r-value of 0.137 is greater than the tabulated r-value of 1.96 at the degree of freedom of 229 and level of significance of 0.05, this lead to the rejection of the hypothesis, indicating that there is positive correlation in the opinion of respondents regarding the accessibility and utilization of teaching and learning at secondary school in Ekiti LGA., Kwara State.

Ho_3: There is no significant difference in the opinion of respondent regarding challenges and utilization of instructional material in junior secondary schools.

Table 10: Summary of PPMC (r) analysis showing the respondents responses regarding the challenges utilizing instructional material in teaching and learning.

Variable	N	Mean	SD	DF	Cal. r-Value	Crit. r -value	Remark
Challenges	330	116.11	46.11				
Challenges of utilization instructional materials	330	108.20	52.07	229	0.132	0.0084	Significant

$p<0.05$ level of significance (one tail)

From the table above the calculated r-value of 0.132 is greater than the tabulated r-value of 0.0084 at the degree of freedom of 229 and level of significance of 0.05, this lead to the rejection of the hypothesis, indicating that there is positive correlation in the opinion of respondents regarding the challenges of utilizing instructional materials in junior secondary Ekiti LGA, Kwara State.

Discussion of Findings

The study found that teachers who were rated as ineffective considering the variables for the study actually made appreciable uses of instructional materials to enrich their instructional packaged. However, the difference found in the mean effectiveness of teachers on materials usage was statistically not significant.

Having analyzed the results of the study, the result of the findings is explained as thus:

Research hypothesis one has been rejected based on the analysis in table 4 since the calculated r value of PPMC is greater than the tabulated r value of PPMC. The study revealed that there is a statement difference in the opinion of respondents regarding the

availability and usage of instructional materials in teaching and learning of Biology Science at junior secondary schools in Ilorin metropolis Area of Kwara State.

This finding is in line with the views of Adegbija & Onasanya (2017) who opined that instructional resource or materials usage in teaching and learning process has strong correlation to the level of availability. The findings also corroborate the views of Abimbola (2020), Abolade & Olumorin (2018) and Afolabi (2017) who submitted that teacher accessibility of instructional materials available and the extent of the utilization.

Research hypothesis two has also been rejected based on the analysis in table 5. This means that the respondents responses regarding the accessibility and utilization of instructional materials has positive correlation to teaching learning of Biology Science at junior secondary school level on Ekiti LGA, Kwara State. This finding is support the view of Yusuf (2015) and Fawole (2020) who perceived teachers' experience an important component on the uses and accessibility of instructional materials to support their conventional methods of teaching. The level of accessibility of teachers determines their level of usage.

Research hypothesis three has been rejected based on the analysis. This means that the respondent perceive strong relationship between various challenges and the utilization of instructional materials in teaching and learning process at the junior secondary schools. This finding also corroborates that of Akindolu (2015) and Jekayinfa (2015) who in respective findings revealed that teacher qualification, experience and level of motivation received factors that enhance teachers' instructional qualities and accessibility to their usage.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This research was a survey work on the availability and use of instructional materials in teaching and learning of Biology Science in Ilorin Kwara State.

A descriptive research design of survey type was adopted for the study which involves hypotheses testing and uses of questionnaire to collect relevant data from the sample respondents within the target population. A sample of three hundred and thirty (330) respondents made up of biology teachers and selected students at junior secondary school classes were selected randomly across twenty six (26) junior secondary schools in the study area, questionnaire form the basis for data collection from sample population of the study.

Based on the analysis of data collected from administered questionnaire, it was gathered that instructional materials provided were not adequate in some of the school sampled and where available, the are not appropriate to teach the subject. Also there is poor accessibility of teachers to most of the instructional material provided.

Conclusion

Based on the finding and analysis of this research work, it was concluded that;

- There is significance difference in the opinion of respondents regarding availability and usage of instructional materials for teaching and learning of Biology Science at junior secondary school.

- There is significance difference in the opinion of respondents regarding availability and accessibility of instructional materials for teaching and learning of Biology Science at junior secondary school.
- There is significance difference in the opinion of respondents regarding challenges and utilization of instructional materials in junior secondary school.

Recommendations

Instructional materials are important materials needed for the realization of instructional objectives and education goals, thus the level of use of these resources in teaching and learning should be improved upon in view of the conclusion drawn. However, it was recommended that;

- Curriculum planners and implementation and educational policy makers in should sanitize the school and teachers on the need to put more emphasis on utilization and improvising of resources materials in teaching and learning of Biology subjects.
- The government as a matter of policy should recruit more qualified graduate teachers to teach at junior secondary school level most especially Biology Science.
- Instructional materials are important materials needed for the realization of instructional objective and education goals, thus the level of use of instructional materials should be improved upon in view of the data analysis.
- Adequate instructional materials should be provided for effective teaching and learning process.

- The government as a matter of policy should recruit more qualified graduate teachers and retained of materials teachers to help teaching effectively, instructional materials to make teaching more effective in secondary schools, most especially in Biology Science.
- Every schools should have store where instructional materials would be kept and care for and the store should be managed handle by each subject teacher.
- Criteria for instructional materials selection should be based on it suitability to function for the purpose it is designed for.
- Finally the existing education materials centre in all the states should be reactivated, well equipped and made easily accessible to the students and teachers for effective usage.
- All teachers should be encouraged to use local materials as teaching materials to teach in every school at all level in ease of scarcity of real material.

Suggestions for Further Studies

The research for further studies could be carried out in the following area:-

Effect of the use of instructional materials on the students' academic performance in primary and secondary schools should be compared.

The place of instructional materials on the quality of instructional delivery in Biology Science teaching and learning in selected secondary schools in Ekiti LGA, Kwara State.

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APPENDIX

PROFESSIONAL DIPLOMA IN EDUCATION (PDE)

QUESTIONNAIRE ON EFFECT OF INSTRUCTIONAL MATERIALS ON STUDENT PERFORMANCE IN BIOLOGY SCIENCE IN SOME SELECTED SCHOOLS IN ILORIN, KWARA-STATE

Dear Respondents,

I am conducting a research work on Effect of Instructional Materials on Student Performance in Biology Science in Some Selected Schools in Ilorin, Kwara-State.

It will be highly appreciated if this questionnaire is completed as requested. Information given by you on this questionnaire is meant for research purpose and will be treated as strictly confidential.

Please respond to the items honestly as possible.

Yours faithfully,

Nnadi Lawrence Chucks

SECTION A

PERSONAL DATA

Please kindly tick (√) the appropriate answer in the space provided below:

1. Class Taught: (a) JSSI ( ) (b) JSSII ( ) (c) JSSIII ( )
2. Sex: (a) male ( ) (b) female ( )
3. Qualification (a) B.ED ( ) (b) B.SC (ED) ( )
4. Teaching Experience (a) 0 -5 years ( ) (b) 6-10 ( ) (c) 10 years above ( )

SECTION B

Instruction: Please respond to the questionnaire as honest as possible by ticking (√) the suitable answer as applicable to you. Use the key below.

SA- Strongly Agreed, A - Agreed, SD - Strongly disagreed, D- Disagreed.

S/N	ITEMS/STATEMENTS	SA	A	SD	D
	Availability and Usage of Instructional Material				
1.	The school provides adequate and relevant materials for teaching of Biology Science.				
2	Instructional material such as; chalkboard, bulletin board are available.				
3.	There are resource centres in the school which support the use of materials for teaching, learning processes.				
4.	Most instructional materials available in the school were obsolete and not relevant in teaching of Biology Science.				
5.	Uses of instructional materials provide effective focus for student in Biology Science.				
6.	Most instructional materials available were not properly utilized by teachers in the school.				
	Accessibility of Instructional material				
7.	Instructional materials provided by the schools were constantly accessed and utilized by Biology Science teachers.				
8.	Teachers' lack the skill to use the available instructional material.				
9.	Lack of awareness on the availability of instructional materials prevents their usage for instructional purposes in Biology Science.				

10.	Teachers become more effective when they use appropriate materials.				
11.	Flexibility of instructional material promotes teacher's access and utilization.				
12.	Accessibility and utilization of instructional material encourage student to offer the subject and make lesson delivery easier.				
	Challenges in utilizing instructional materials				
13.	Teachers do not have basic knowledge and skill for effective utilization of the instructional materials.				
14.	Time has always been a major constraint in the utilization of instructional materials.				
15.	Poor funding for the maintenance and acquiring more up-to-date equipment.				
16.	Lack of accurate statistical data on available instructional material creates some challenges to level of utilization.				
17.	Most instructional materials available are obsolete.				
18	Lack of building and other support facilities for the use of instructional materials make learning difficult.				