

THE EFFECT OF PRACTICAL USE OF
INSTRUCTIONAL MATERIAL ON TEACHING
AND LEARNING IN PRIMARY SCHOOLS
A CASE STUDY OF BARIKIN SALE PRIMARY
SCHOOL MINNA

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NIGER STATE COLLEGE OF EDUCATION MINNA

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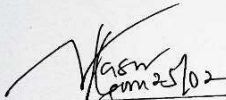
MAT/ISC

IN PARTIAL FULFILLMENT OF THE AWARD OF NIGERIAN
CERTIFICATE IN EDUCATION (N.C.E) IN THE
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DECEMBER, 2014

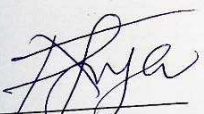
CERTIFICATION

This is to certify that **RABI UMAR SE/11/54058 BIO/ISC;**
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KAMBAI SE/11/53834 MAT/ISC Nigerian Certificate in Education
(N.C.E) Students carried out his research project. It has been read and
approved as meeting the requirement for the Award of Nigerian Certificate
in Education (N.C.E).



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Date



Mrs Alice Djiya
Head of Department

25/02/15
Date

DEDICATION

This project is dedicated to our parent in person ALHAJI GAMBO SULEIMAN, MR AND MRS AUGUSTINE KAMBAI AND ALHAJI UMAR BABA, who were solely responsible for both our personal and academic needs over the years without showing any sign of tiredness.

ACKNOWLEDGEMENT

In writing this project, we have drawn a lot of inspiration from many scientists especially from our lecturers in the Niger State College of Education, Minna. They have equipped us with both the academic and scientific knowledge which has enabled us to accomplish this task. To them we wish to express our grateful appreciation.

We owe many thanks to a number of persons who have been particularly helpful to us. First among them is Malam Nasir Mu'azu Kontagora who despite other pressure, spare time to thoroughly check every bit of our write up and make the necessary corrections. Others include Mrs Alice Jiya and Malam Ibrahim Yakubu Tsoho who have contributed either materially or spiritually to the success of this work.

ABSTRACT

The research project was carried out in order to determine the impact of instructional material on teaching primary school in Minna, Chanchaga Local Government Area of Niger State. Simple random sampling technique was used in which twenty (20) pupils were selected for each group i.e. control group and experimental. The type of instrument used for data collections was test, consisting of both pre-test and a post-test which was conducted after the use of instructional material in teaching, while post-test was conducted after the use of instructional material. A simple and straightforward frequency distribution and percentage was use. At the end, it will be necessary for the furtherance of research to be carried out particularly on the importance of teaching.

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CHAPTER ONE

1.1 BACKGROUND OF THE STUDY

Teaching and learning requires the use of various instructional materials to ensure better understanding of the principles and their applications for human benefits.

Ibitoye (2003) opined that efficient and effective management of teaching and learning to a very large extent is a function of several factors such as teachers, personality, instructional support, learner's characters, availability and utilization of instructional materials.

This project (a case study of Barikin Sale Primary School Minna in Chanchaga Local Government Area of Niger State) will stressed the importance of instructional materials, their production selection and utilization for effective teaching especially at the primary school level.

According to Eriakson (1982), instructional materials is a term referring to all things that can be seen, heard, read and manipulated with the objective of enhancing teaching and learning process. These materials are found to be important in achieving stated behavioural objectives by the sub-sector of educational technology called instructional technology. based on the afore mentioned definition, it is evident that instructional materials are involved with technique and sustained by techniques, skills devices and competence, the neglect of which have to large extent impeded effort of excellence in our educational sector.

1.2 STATEMENT OF PROBLEM

Primarily, teaching is a process whereby certain conditions are arranged for the students consciously to develop their knowledge by

experiences in the manner set down in lesson objectives by a teacher, due to the broad and embattling nature of teaching subjects most especially in public primary schools.

The research carried on this topic "impact of instructional materials on teaching and learning is designed to examine the following problems.

- i. Inadequate use of instructional materials in teaching and learning.
- ii. Appropriate and relevance of the instructional materials.

These problems have in one way or the other affected the performance and understanding of teaching and learning in our primary schools which is the keen interest of the researcher.

1.3 OBJECTIVES OF THE STUDY

The objective of this research work includes:

- i. To further encourage the utilization of instructional materials by the teachers in primary schools for effective teaching and learning.
- ii. To show how behavioural objectives are achieved within a given time when instructional materials are used in teaching.
- iii. To recommend to the local state, and federal governments to provide schools with relevant instructional materials so as to enhance teaching and learning in our primary schools.

1.4 RESEARCH QUESTION

In the course of data collection the researcher wants to know the followings:

- i. Is there any difference in pupil's performance when instructional materials are used and when they are not used in lessons?
- ii. Do teachers use instructional materials adequately?
- iii. Are there enough instructional materials for teaching/learning?
- iv. Who should be blamed for insufficient working materials i.e. (instructional materials)?

1.5 SIGNIFICANCE OF THE STUDY

The significance of this study is to examine to what extent the use of instructional materials positively affected the teaching and learning in primary schools. The result of the study could be used as a guide for school administrators and teachers on how to procure; preserve and utilize instructional materials for better academic achievement of pupils in school.

1.6 SCOPE OF THE STUDY

This research work, focused on the impact of instructional materials on teaching and learning in our primary schools, while its geographical coverage focused only on primary 5 (class 5) pupils in Barikin Sale Primary School Minna in Chanchaga Local Government Area.

1.7 DEFINITION OF TERMS

Learning:

is defined as the manifestation and modification of behavior as a result of past experience.

- Teaching: is the systematic presentation of fact, ideas, skills and techniques to pupils.
- Pupils: A child who is taught at the level of primary school.
- Performance: Is described as a level of activity done by someone subjected under the same condition with others.
- Knowledge: The facts, information, understanding and skills that a person has acquired through experience or education.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

In this chapter the task of effective teaching-learning and achievement of set out objectives at the primary school level has become more complex and competitive. To cope with this competition, there must be effective application of instructional materials in teaching at the primary school level. What transpire in most primary schools shows that only a few teachers use instructional materials in their teaching (Agun and Imogie, 1988).

Most of the teachers are not adequately placed in view of the knowledge and skills about the production, management and the use of instructional materials and equipment, consequently, such teachers are not aware of the vital role instructional materials play in education.

Materials are available in some case but still most of the teachers don't utilize such materials and also, don't employ them in their teaching for one reason or the other.

In line with this, Okpala (1991) opined that the main problems of teacher effectiveness pertain to how teachers classroom behavior assisted pupils in the acquisition of structural knowledge. Teachers too have their own individual way of behaving and thinking.

A teacher may exhibit the characteristics of an externally controlled person. Teacher's cognitive view of tasks to be performed or knowledge to be taught to pupils has been show to have effect on their teaching behavior.

Some teachers in primary schools have taken the use of text books as the only teaching aid to be used for teaching and learning; other instructional materials such as radio, over head projector, re...

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objects or bringing in a resource person to deliver a lecture on a particular topic can make teaching efficiently and effectively faster and better in assimilation of knowledge (Blish, 1970).

2.2 EFFECTIVENESS OF INSTRUCTIONAL MATERIALS

The instructional materials make the lesson interest. It also reduces the difficulty of understanding a concept and helps to improve pupil's new skills through practice (Adeyemi 1992 in Adeyemi, 2000). It is very important for the teacher to plan carefully for the aid he/she wishes to use the time he/she is planning his/her lesson.

The scheme of work should indicate the kind of teaching aid to be used for teaching different topics and this will allow the teacher secure the teaching aid and become conversant with them (instructional aid). Various assertions have confirmed that judicious application of instructional materials in teaching take education more productive because the material has a way of increasing the quality and quantity of learning. They provide the learner with practical experience. Some of which can not be made possible by the teacher in the class without their applications

Daramola (1994) describes instructional materials as facilities that can be used to case, encourage, improve and promote teaching and learning activities. Each of the numerous types of instructional media makes some unique contribution to improve communication and effective learning.

Ogunlade (1984) identified the following general advantages of instructional materials.

- i. Pupils not present during instruction can easily catch up through individual efforts.

- ii. Make revision easy
- iii. Teaching supervision is easily discourage
- iv. A good avenue for investigation and discovery
- v. Application of instruction, principles and concepts are encourage.
- vi. Encouraged group work, comradeship, co-operation and mutual understanding.
- vii. Elimination of boredom, tension and frustration

Kemp (1980) remarked that the instructional materials are selectively chosen and used appropriately, such tools whether simple or complex, can enable a good teacher perform better.

Adeyemi (1992) said that no one type of materials is best for all living situation, such has a specific role in order to provide maximum effect many empirical studies carryout by psychologist, educationist, and media specialists have revealed that instructional materials can facilitate teaching leaning process. Some schools of thought believe that the teacher can save average of minutes in every 60 minutes lecture period using overhead projector.

Brown, *et al.*, (1979) found out that newspapers, cut-out magazines and journal, present current event of study analysis and improve reading skills.

Oesthock and Ackers (1973) observed that the average marks conventional lecture that media like moves, television and video system can enhance retention of knowledge because they appeal more to the sensory modalities.

More so audio-visual has to do with hearing faculty of human being while visuals are instrument which help in teaching which are seeable and hearable.

Gagh and Briggs (1970) stated that visual learning refers to the presentation of magnetically recorded experience, descriptions, directions and the like of individual group of learners as they seek knowledge to develop skills.

By and large, all these have revealed that availability and effective utilization of instructional materials are very crucial and inevitable in education. It is in this realization that the national education technology centre. (NETC) Kaduna was established in (1977) in line with the aims and objectives of national policy on education.

2.3 THE NEED FOR INSTRUCTIONAL MATERIALS

The practical orientation of 6:3:3:4 systems has significantly understood the imperatives of instructional materials at all level of schooling. This is more so since it is believed that instructional material ensures the effectiveness of teaching and learning. Though among other concretizing ideas, engendering creativity, such as effectiveness is predicated on the obvious advantages, which instructional materials inject into teaching and learning situation. In line with the foregoing, Hoban *et al.*, (1949) had asserted that when properly used instructional material could achieve the following.

- i. They supply a concrete basis for conceptual thinking and reduced meaningless world responses.
- ii. They make learning more permanent.
- iii. They have a high degree of interest for pupils.
- iv. They offer a reality of experience, which stimulate self activity on the part of the pupils
- v. They develop a continuity of thought this is especially true of motion pictures.

- vi. They contribute to growth to growth of meaning and hence to vocabulary development.
- vii. They provide experience not easily obtained through other material and contribute to the efficiency, depth and variety of learning.

The afore-listed advantages of instructional materials reinforce their relevance to the new system. This contention is buttressed by the fact that a most significant feature of the system is its open ended ness. By this is meant that education have coupled opportunity and time to break and rejoined covenant period and stages. Hence, there is provision for acquisition of relevant skills and competencies at the various levels through practical experiences in the field before the education rejoin the schools system. By so doing, the system acquires an in built system of self-growth and rejuvenation. Expert have agree that such practical and Unitarian experiences can best be gained if instructional materials are employed to enrich teaching and learning not only within the confines of classroom walls but also outside by means of self-tuition.

The 6 - 3 - 3 - 4 system is designed not only to engender creatively in the education but also to develop their potentials especially in the acquisition of skills and competencies. This explains the provision for pupils to tackle such previously ignored areas as craft and agriculture.

Moreover, at the junior secondary school level the student are expected to take at least two-vocational courses. In furtherance of these and to import the concept of acquisition of practical skills and boost the idea of dignity of labour, it is made mandatory for those at

the senior secondary school level to take at least on vocational subject (Fagbeja, 1985).

For purposes of implementing not only the broad provision of the 6 - 3- 3- 4 system, but also specially promoting acquisition of relevant skills, within the school system, certain instructional materials are being provided. Nwosu (1987) list some of those that have already been introduced at the various level and grades of the school system as follows: radio and television sets, tape recorders, video set film strips/slip projectors, overhead projectors, cameras, micro-films readers, stitching machines, map and globes, cartographers materials wedding and fabricating equipment, mortised farm implement, chalk boards and flannel and migrate boards.

2.4 USES OF INSTRUCTIONAL MATERIALS IN THE CLASSROOM

Schramn (1977) defines it as information carrying technologies that are used for instructional purposes with the hope of delivering educational information very quickly and very widely. Such materials however should be as real possible. The term instructional materials explain itself clearly in that in absence of the teacher, the pupil can learn it. They have access to the media that will present the information required. Okpale (1981) defines it as devices which present a complete body of information, and largely self-supporting, rather than supplementary in the teaching and learning process. The more modern term used for teaching and learning process is visual aid its referred to as instructional material or media.

It is necessary to not that however good an instructional material may be in terms of production, it requires the skills of the

teacher to operate it so that teaching would be easier enjoyable. Adequate use of relevant materials would also help the teacher's effort, such that he could be more efficient and effective in his teaching. for example he can use the materials to guide thinking when he wants to discuss a concept that are too abstract for the students level, like in the teaching of space travels, in the space exploration. The teacher can therefore, use the needed materials to present the fact and information to his pupil. Here in brief, are some instructional materials that are suitable for primary school (Albert, 1970).

Graphics it is a kind of two dimensional representation which includes wall-charts, drawings, schematics diagrams, bill-boards, posters, textbook and chalk board etc. the chalkboard is the basic means of presentation, its surface holds a good chalk image which can be easily erased or cleaned. The chalkboard has colour which blends with room. The effective chalkboards are available in posted green or black. Textbooks are printed materials, sometimes; they are illustrated and bound for children's use. Posters, naturally combine simplicity and visual force with emotional impact of theory. A poster often time consists of text and illustrations. Its role is to implant in the viewers mind important ideas.

A diagram is a condensed drawing consisting of basic lines and symbols, which are usually designed to show inter-relationship, outlines and figures of a process or an object. diagram are useful in learning concepts in social studies, languages etc.

The basic skills and knowledge of producing software instructional materials is essential. But in preparing to produce them the following suggestion should be considered.

The use of low-cost and locally available materials, the formation of a habit of collecting old magazines like calendars, picture, bottle tops, shells, strings and leaves and wires etc should be encouraged (Okpala, 1991).

Since no instructional material can compete with reality, it is important that the various materials intent to communicate. If the elementary school children are to have knowledge. Very simple and should be prepared to convey messages where necessary. It is known that various materials that are effect are those that encourage the spirit of discovery on the part of the pupils. They should therefore be involved their skills and experiences.

It is advisable to help children to see, fact touch and smell objects and whenever or wherever the real experiences exist be it accidental or created within the immediate environment, student should be given the opportunity to see them. Here are few materials that can be made for classroom use.

Picture, charts, graphics, models, puppets and mock ups maps and globes, other are display boards, chalk boards, bullet in boards, magnetic boards and other representation of life situation are as follows: dramatic expressions, games role playing and simulations. Some of the other resources that are useful but non-available for teaching in the primary school during the first six years of education are as follows:

Slides film trips and transparencies, projection equipments like the motion picture; tape and recorders television radio tape, programmed instruction and teaching machines, computer etc and in some cases textbooks are not available for the pupils use (Adeyemi, 1992).

2.5 DEVELOPMENT OF PRODUCTION OF INSTRUCTIONAL MATERIALS

Production of materials is a serious business and everything must be put into it. The crunch in the country's foreign exchange earnings and worldwide recessions have made it clear to use, that technology is never imported. The technology and expatriates who are imported are products of developed skills and creativity. Nigerian educators, teachers, developers with training in educational technology, must bring back their professional interest and expertise in laying the rudiment of a technology, especially in media system and material production. The central figure in education is the learner, hence, all the resources made available to education are for the purpose of attaining the responses and the totality of the learner's behavior in a clearly pre-determined way. Rather than lay emphasis on finished products, teachers and educators, most especially practitioners of educational technology should try to develop and produce in expensive and effective media for the teaching and learning process.

The condition to design, produce and develop on instructional material by teachers the expect of the primary school level cannot be overlooked in our search to improved teaching/learning processes and achieve the aim and objectives of this level of educational system.

In instructional materials are made readily available, there will be no need to produce new ones, in this case the only need is to effectively select and employ them in teaching in order to save time, energy and money. Moreover, if the materials are not available or when the materials available cannot serve the purpose of teaching

(that is, to match the objective set by teachers) then an alternative approach is to modify the existing materials (Daramola, 1994).

More importantly, before embarking on the production of instructional materials the following basic questions were put forward by Yusuf (1997).

- I. What products are you going to set your ideas on, usually every idea from pupil teachers and from experiences in the community.
- II. What goals will your product achieve? in the one word you must have a plan, the objective must be stated, for example you must answer this question does your objective describe what the pupil will be able to do as a result of using the instructional materials, do to have the knowledge of the objective and subject matter.
- III. Which kind of instructional material are for the topic chose. There are many materials that can be produced or improvised; it could be simple medium. Multi-media, self-instructional or teacher lead instruction. The decision has to be taken before starting.
- IV. What are the conditions to target before using instructional materials? There are some things to be considered: the age of the learner, the size of the learner (pupil) must be specific and immediate. That is teacher must consider the time so that the instructional materials use will not consume much with all these, it could be used effectively by individuals, large or small groups you should have measured to enhance the lifespan of the instructional materials. Another condition is how to store, preserve and present the materials and that would depend on whether they are operated manually or with electricity.

I cannot be taken in an attempt to meet all these conditions you must find another alternative to improvise new type of materials that would be suitable for the teacher and the learner. Although producing new ones may be too expensive and time consuming, but it is worthwhile, because it allows the teacher to produce materials that would precisely serve his pupils and to meet his teaching objective.

2.6 IMPROVISATION OF INSTRUCTIONAL MATERIALS

The first thing in the production of any instructional material is to plan. Planning will assist in identifying the different types of materials to be used.

The planning will first of all state the objectives from where the pupil identifies the content. If their choice of appropriate medium falls on the visual the next thing is to sketch out the materials that will be needed for best production. At this stage, I will consider the size of the audience, their interest, their pre-factual skills, their language difficulty and the kinds of visual symbol they understand. These will enable me to select the best sketch and prepare the materials. Evaluation should follow the use of instructional material for improvement.

There are very good illustrations, they can also be displayed on the educational board to reinforce what has been learnt in the previous class.

- ◆ A good picture collected for teaching should be
- ◆ Alternative to gain the attention
- ◆ Relevant to the objectives set
- ◆ Accurate to guide the learner
- ◆ In selecting the fact.

They can be obtained from almanacs, magazines etc. in order to have access to relevant pictures, teachers should bear in mind the importance of keeping them when reading newspapers magazines, advertising, brochures, travel folders, catalogues anytime you come in contact with any picture that you feel will be useful for teaching and learning, try to obtain it. The old calendars with nice relevant pictures for instructional purposes should be kept. Another means of collecting more pictures is by making friends so that you can have access to their old calendars and magazines.

A good filing system can be prepared for the pictures e.g. use a very large empty carton to store the pictures flat, either vertically or horizontally.

Mbuka (1987) has identified certain basic considerations that must be taken into account when designing instructional materials.

Equipment: do you have necessary materials you intend to design?

Facilities: if your design calls you for use of special production facilities, do you have them?

Technical expertise: do you possess the expertise design the material or can you easily have to get the service of an expert.

Material or can you easily have to get the service of an expert.

Cost: is the money for the designing and production available

Time: can you afford the time necessary for the designing and production of the materials you have in mind.

Audience: does your pupil have the requisite knowledge and skills to learn from the materials.

Objectives: what do you as a teacher want your pupils to learn?

What is the cost effectiveness of the product in order words, does the end justify the means in term of time, energy, and money spent? very important, instructional material developers must ensure that products are designed to achieve specific objective to other

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replicable instruction and such materials should be effective. By and large, the process of developing instructional materials should include preparing specification with regards to statement of objectives evaluated measures to assess pupils performance on suggested objectives and to prove constraints and condition on the uses of the instructional materials.

2.7 SELECTING AND DESIGN OF INSTRUCTIONAL MATERIALS

Agun (1982) suggests the following criteria for the selection of instructional materials.

The educational and instructional objectives of the materials must determine the characteristics of the learners for whom the materials are originally designed and produced for.

The selection and design of instructional materials is determined by objective of teacher (he) intended to achieve, the characteristic of the learners as well as the content to be taught. The vocabulary level should neither be above or below that of the learners for whom he/she intends to use the materials. Each instruction materials to be used should be relevant to the concept he intends to pass across.

He should ensure that they promote learning and present up to date information. In addition, the teacher who is selecting the materials need to ensure that the content is presented in a systematic manner that encourages the students to participate rather than sitting down and listening passively.

Nevertheless, the teacher should bear in mind the finances available to him/her when selecting instructional materials in other words, the cost of purchase or production should not be too high.

Ebowon (1986) quoting Oguntade (1984) reported that if teachers know they are trying to do as educationist, if they know why they incorporate any medium whether simple or sophisticated into the teaching process. The technology will help them and supplement the much needed effectiveness in teaching. The teacher who intends to select, design or produce instructional materials and sometimes need to employ the service of a media specialist.

The media specialist, knowledge becomes particularly useful where the teacher lacks knowledge of the use of such materials. The media specialist would instruct him/her on the selection, design, production and utilization of such materials in the teaching process.

In the design of instructional materials, the teacher need to consider the area as of deficiency of the learner and materials produced, used to remedy the deficiencies.

Gogne and Briggs (1979) say instructional designs should be undertaken with due consideration of the condition under which learning can occur.

The teacher who designs materials without considering the condition of learning stands the risk of making wasted effort for the learner to achieve maximum undertaking of contents. The learning condition must be modified to suit their peculiar characteristics.

The production of instructional is dependent mainly on the mode of learning task to achieve.

In other words, these are the criteria to follows:

- i. Curriculum objectives
- ii. User characteristics
- iii. The content of the materials
- iv. The approach of the producer of the materials
- v. The physical features of the materials

- vi. The condition for use
- vii. Cost of the raw materials

For the hardware, the following guidelines are suggested:

- i. Purpose for which the equipment is to be acquired
- ii. Full details about mechanical quality
- iii. Ease of operation
- iv. Portability
- v. Degree of abuse
- vi. Compatibility
- vii. Establish reputation of the manufacturers, dealers and performance of the brand of equipment
- viii. Cost of the material

2.8 CONSTRAINTS IN DEVELOPING, PRODUCING AND UTILIZATION OF MATERIALS

Certainly, the use of instructional materials is paramount in the primary school level if only we want to adequately achieve aims and objectives at this level of our education. Evaluation method predominant in most of our primary schools.

There is no doubt that a lot of problems are militating against the utilization of instructional materials especially at this level, some of these problems includes:

- i. Inadequate fund
- ii. Inaccessibility of materials
- iii. Non-availability of materials
- iv. High teaching work load
- v. Lack of adequate knowledge
- vi. Inadequate recognition by authorities (government
- vii. High cost of procuring and providing materials

- viii. Lack of manufacturing industries for some materials
- ix. Inadequate infrastructural facilities
- x. Irregular or lack of electricity supply
- xi. Negative attitudes of pupils teachers and head teacher

Ajala (1985) studies teacher competency and utilization of instructional media in teaching of agricultures and reported that, the educational media are inadequate in some schools. The majority of agricultural science teachers are not qualified and the qualified ones are dominated by holders of Nigeria Certificate in Education (NCE).

Also, another major constraint is the cost of importing foreign-made materials into the country today. the costs are high, even when financially possible in order for and secure these instructional materials from abroad, some of them get damaged or are cost in transit. Foreign made instructional materials may also have the disadvantages fore one sophisticated and are above the competence of the teacher to handle and use may not know how to manipulate or use it effectively, e.g. the computer maintenance of many of those imported instructional materials can also become a major cause of problems where there are no competent technicians to carryout routine check and repairs where necessary.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH INSTRUMENT

The instrument used for data collection is correlation method where pupil, were tested before the use of instructional materials by teacher (pre-test) and another test administered after the use of instructional materials in the same lesson (post-test) in order to establish the effectiveness or otherwise of instructional materials in teaching and learning.

3.2 RESEARCH POPULATION

The study considers class 5A & 5B pupils of Barikin Sale Primary School Minna in Chanchaga Local Government Area each with a population of 60 pupils making a total of 120. Twenty (20) pupils were randomly selected in each of the class to give a sample size of 40 pupils.

3.3 RESEARCH SAMPLING

The sampling population for this work, consist of (40) pupils, twenty (20) were selected for experimental and another twenty (20) as controlled group respectively.

3.4 INSTRUMENT FOR DATA COLLECTION

The instrument used for data collection is traditional paper and pencil tests administered by the researcher for primary 5 pupils. The questions were the same for both pre-test and post-test i.e. before and after the use of instructional materials. General question were asked. Reactions to the questions were marked and the result recorded.

3.5 ADMINISTRATION OF INSTRUMENT

The tests were administered directly by the researcher and a teacher in the class while teaching.

3.6 METHOD OF DATA ANALYSIS

The data (test scripts) were collected and marked and the result is analyzed by using frequency count and percentage distribution of the scores, chi-square and correlation co-efficiency (r).

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CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 INTRODUCTION

In this chapter the researcher collates the result of the test administered to the control and experimental groups for both pre-test and post-test. A correlation statistics was then used to analyze and interpret the data collated in the course of the research work.

4.1 DATA PRESENTATION

The data collected in this research work, was a primary data, which was through a test administration to both control and experimental groups and in both the pre-test and post-test. After marking the administered test the results were presented in tabular form for easy analysis.

4.2 FORMAT FOR DATA ANALYSIS

The researcher after marking the tests administered collates the data which was then put in a tabular form and a brief analysis of the data was then given. Then a simple correlation test was conducted, which the researcher used to test whether there is significant correlation between the use of instructional materials in teaching and learning and pupil's performance.

4.3 DATA ANALYSIS

the researcher here first compares the scores of the pupils from both the control and experimental groups, first looking at the pre-test then the post-test scores.

Table 1a: Raw Scores of the Pre-Test on Both Control and Experimental Groups.

Sample	Scores (50 marks)	
	Control	Experimental
1	20	20
2	30	20
3	10	20
4	20	10
5	40	30
6	20	20
7	20	30
8	30	30
9	50	40
10	10	10
11	10	20
12	10	20
13	50	50
14	40	50
15	20	20
16	30	30
17	30	40
18	40	40
19	50	50
20	40	30

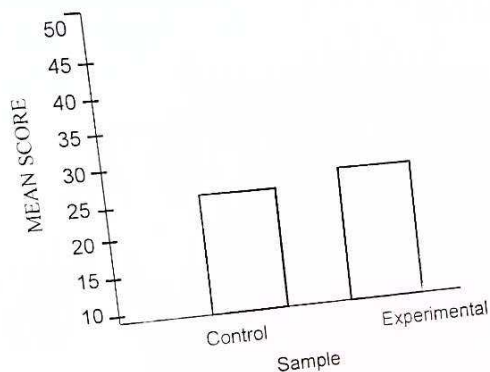
From the table above it can be seen that on the average the performance of the two groups is almost similar

Table 1b: One Sample of the Pre-Test

	Mean	N	Standard deviation	Standard error mean
Control	28.50	20	13.870	3.101
Experimental	29.00	20	12.524	2.800

$\alpha = 0.05$

Graph 1: Bar Chart Showing Mean of the Pre-Test Scores



The graph above shows a pictorial representation of the mean scores of the two groups it can be seen that the mean difference is so small as to be in significant.

Table 1c: Correlation of the Pre-Test of Control and Experiment Groups

Source of variation	N	Mean	Correlation	Significance
Control	20	28.50	0.839	0.000
Experimental	20	29.00		

$\alpha = 0.05$

The difference in mean of both the experimental and control groups is 0.5 with a correlation of 0.839 at significance of 0.000. This shows that there is a high correlation between the two groups that is the two groups are significantly the same as the sample selected. Therefore, the two groups exhibit the same performance upon the administration of the pre-test question. Thus, it is safe to

continue to experiment as each of the group can stand in the place of the other having shown a close correlation. By implication, the two groups are of almost the same IQ status and thus administering the experiment (use of instructional materials in teaching and learning) on any one of the group can help us determine whether there is a correlation between performance of pupils and the use of instructional materials.

Table 2a: Raw Scores of the Post-Test on Both Control and Experimental Groups

Sample	Scores (50 marks)	
	Control	Experimental
1	10	50
2	30	30
3	20	40
4	30	20
5	20	20
6	20	30
7	20	40
8	40	50
9	40	50
10	10	40
11	20	30
12	30	10
13	20	30
14	20	50
15	40	50
16	20	40
17	10	30
18	20	50
19	30	50
20	20	30
	50	

Correlation of the Post-Test of Control and Experimental Groups

Table 2c:

Source of variation	N	Mean	Correlation	Significance
Control	20	25.50	0.051	0.837
Experimental	20	37.00		

$\alpha = 0.05$

From table 2c, it shows that the experimental group has a higher than the control group with a mean difference of 11.5. This shows the efficiency of the instrument.

Furthermore, there is a correlation of 0.051 at 0.837 significance, which shows that it is not significant at $\alpha = 0.05$. This is the experimental and control groups are not the same in performance when the instructional material is used in the teaching and learning. This therefore, shows in the teaching and learning and learning. This therefore, shows that there is significant correlation between This therefore, shows that the use of instructional materials in the pupils performance and the use of instructional materials in the teaching and learning. Thus, the researcher rejects the null hypothesis which says that there is no significant difference between

pupil's performance and the use of instructional materials are We can safely also conclude that there is significant difference in teaching effectiveness when instructional materials are employed in the teaching and learning

CHAPTER FIVE

5.1 SUMMARY

The research work made a humble effort of finding the effect of the use of instructional materials in the teaching and learning and pupil's performance.

Chapter one took us through the background of the study, stating the objectives of the study and at the same time posing some questions which the research work attempt answering. A hypothesis was put forward as to whether there is significant correlation between the use of instructional materials and pupils performance. The chapter ended with operational definition of terms as they appear in the text.

Chapter two dwells on review of materials relevant to the theme of the research work. It took us from the concept of instructional materials to the effectiveness of it and its use in classroom management.

Chapter three deal with methodology of research dealing with sample and sampling technique, the research instrument and method of data analysis.

Chapter four present the data collected using various statistical techniques, first bringing the data collated in a table form for easy perusal, this is then presented in a graphical form (bar charts) to give an easy to see and comprehend comparison of the scores obtained of the questions administered to two groups (control and experimental). Statistical formular such as the mean, standard deviation and correlation were used to find the hypotheses.

Chapter five finally summarizes the research work, reached conclusion and made appropriate recommendations.

- More funds should be allocated for the provision of instructional materials.
- Adequate teaching aids/instructional material should be provided by government.
- Instructional materials in their teaching and learning activities.
- Teacher should be encouraged to incorporate the use of instructional materials in their teaching and learning activities.

5.3 RECOMMENDATION

Following the efficiency of the use of instructional materials in teaching and learning as shown by the research work, it is hereby recommended as follows:

It also promotes teacher-pupil relationship which made pupils retain easily what they learn for a long period of time.

That is why they are also called teaching interesting and less boring instructional materials help teachers in their teaching job and teaching brought about by the use of the instructional materials have shown. This could also be linked to the effectiveness of learning can make difference in pupils' performance as the result indicative that the use of instructional materials in teaching and learning.

Thus, all the research questions have been answered as it is evident that there is a significant correlation between the use of instructional materials and pupils' performance in the teaching and learning.

5.2 CONCLUSION

Teacher should be encouraged to improve materials where they are lacking.
Workshop should be organized for teachers on the use of instructional materials from time to time

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