THE AVAILABILITY AND UTILIZATION OF NON-PRINT INSTRUCTIONAL MEDIA AT AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

by

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ABSTRACT

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The federal government of Nigeria is actively involved in providing quality education to its citizens. For this reason it has assumed responsibility for improving the standards on all levels of education by encouraging the use of modern educational techniques. In 1977, it became national education policy to emphasize the use of instructional media in the classroom.

This study was conducted in order to discover whether the educational practice in Ahmadu Bello University, Zaria, was in accordance with the Nigerian educational policy. A survey instrument, which included 18 items of non-print (non-book) instructional media, was developed to determine its availability for various departments, and for classroom use by university teachers. Copies of the instrument (questionnaires) were sent to 300 teachers in Ahmadu Bello University, Zaria, during the 1982-83 academic year. Two hundred and thirty-two of the teachers completed and returned their questionnaires.

After analyzing the data, it was found that the majority of the teachers claimed that most of the media under investigation was not available in their departments. Some of the media, however, was said to be available in the university. The majority of the teachers (more than 72.0% of the respondents) have never used the media under investigation.

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DEDICATION

This study is dedicated to my wife, Hauwa Bala, and to my children, Zigwai, Zichat, and Sheyin, for making me a happy husband and father.

The study is also dedicated to my parents, Mr. & Mrs. Bala Sheyin, for their contribution towards my education.

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CHAPTER I

INTRODUCTION

Media use in every classroom of the educational system of any nation is becoming necessary due to two main factors. First, the rapid technological development of this era has made the traditional method of instruction, which allows the teacher to walk into the classroom and lecture to the students, unpopular. Secondly, the growing school enrollment makes it virtually impossible for the teacher to give individual attention to each student. Students of today are encouraged to assume an increasing responsibility for their own learning. Educational technology and the use of various media enables the teacher to give each student the opportunity to pursue his own interests at his own pace, and can partially alleviate the problem of increasing classroom populations.

When teachers have stated and accepted their objectives of what they want to teach or the students to learn, the instructor would then want to see that all students reach those goals as quickly and as completely as possible. Teachers should use any and all of the capabilities of modern technology which will produce the desired results to the greatest degree. As Kahl rightly stated:

> Educators have the responsibility of seeing that schools function in such a way as to produce the

> greatest amount of the desired learning in the shortest possible time at the lowest possible cost, both in terms of money and human effort.[1]

Developing nations like Nigeria look up to the more technologically developed nations like the United States of America and Great Britain for support. These developing nations should encourage the use of modern instructional media, especially the non-print media, in their educational institutions as it is done in the U.S.A. and Britain. The importance of instructional media is stated by Freedman and Berg:

> Audiovisual aids have proved to be very useful in the "affective" category, as well as in the "intellectual." First, the pleasure which they give to learning encourages favorable attitudes toward school. Secondly, films have proved particularly effective in arousing emotions, in enabling students to acquire a wide range of identifications with other people and their problems, and even in changing attitudes. Thirdly, films, radio, and television, both in and out of school, have been made the basis for teaching discrimination and good taste through the understanding and appreciation of content, aesthetic values, and technical skill.[2]

It was in view of the purported effective factors of instructional media that this study was made, in order to find out what non-print instructional media are currently available in Nigerian institutions of higher learning, such as Ahmadu Bello University.

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[1]William C. Kahl. Elements of an Effective Audiovisual Program: A Handbook for Wisconsin Educators, (Wisconsin Department of Public Instruction, 1966), p. v.

[2]Florence B. Freedman & Esther L. Berg. Classroom Teacher's Guide to Audiovisual Materials, (Chilton Company, Philadelphia and New York, 1961), p. 7.

Statement of the Problem

The Federal Government of Nigeria has had in effect a policy statement to provide audiovisual aids to its educational institutions since 1977. Higher institutions of learning, including the universities, were to acquire the audiovisual aids according to their needs. Ahmadu Bello University set up an educational technology center to serve as a resource center for its teachers, but little attention has been given to finding out whether instructional media (audiovisual aids) are then being used to improve instruction in the classrooms.

This study sought to discover whether non-print (non-book) media are available in the university. It further sought to answer the following questions:

1. What kinds of non-print media are available?
2. Do the teachers make use of the non-print media in their classrooms?
3. How often do the teachers use the non-print media for instruction in the classrooms?

Purpose of the Study

The purpose of this study was to gather information that can help discern how to upgrade the standard of instruction in Nigerian universities (by effective use of non-print media), with special reference to Ahmadu Bello University.

Since Nigeria has some educational cooperation with the United States, (for example, in the areas of training Nigerian technical manpower and by offering some educational advice), one would hope that Nigerian educators would try to adopt the instructional system

which involves the use of modern instructional media as they are used in the United States. Other programs which have been successfully introduced in the past in some Nigerian institutions, like the use of circuit television in Advanced Teachers College, Kano, lead one to believe that the use of modern instructional media may also be successful. Changing the Nigerian educational system to a six year primary school, three year junior secondary school, three year senior secondary school, four year university education, plus the use of a credit system which is very similar to the American one, would make what is obtainable in America, in terms of instructional methods, workable in Nigeria.

Justification of the Study

The Federal Government of Nigeria in its policy statement of 1977 stated that:

> The quality of instruction in Nigerian Universities will be improved with a view to further enhancing objectivity and tolerance and that "The education of higher professionals will continue within the university system, and it will be rooted in a broad based, strong, scientific background." Also, that opportunities are provided within the higher institutions for the acquisition of the latest professional techniques.[3]

With these strong policy statements on higher education, one would expect that, six years after the policy was made, modern instructional media would have been acquired and fully utilized, (to improve instruction and enhance learning), in most of the Nigerian institutions of higher learning. This study was made to find out

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[3]Federal Republic of Nigeria National Policy on Education, (Federal Ministry of Information Printing Division, Lagos, 1977), pp. 14-18.

whether non-print instructional media are available and being used by teachers in their classrooms, in Ahmadu Bello University, which is a well known pioneer university in the country.

It is hoped that this study may open the way for more such studies to be made with a view to improve the quality of instruction in the Nigerian higher institutions of learning.

Definition of Terms

The following definitions were from the Internationales Zentralinstitute: Glossary on Educational Technology.[4]

Instructional Media - Devices or materials which present a body of information and are largely self-supporting rather than supplementary in the teaching-learning process.

Audiovisual Aids - Aids designed to help learning and teaching by making use of both hearing and sight.

Instructional Technology - The equipment and media resources for instruction.

Print Media - Audiovisual aids that are printed in book form or on paper, such as books, graphics, maps, etc.

Non-print Media - Audiovisual equipment, supplies, and materials by which learning is enhanced through the combined senses of hearing and sight, e.g., sound motion pictures and television.

In this study, instructional media means the same thing as audiovisual aids.

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[4]Internationales Zentralinstitute: Glossary on Educational Technology, (Internationales Zentralinstitute fur das jugendund Bildungs - Fernschen, 1973).

Method of the Study

The method of this study included identification of the target population, the review of relevant literature to the topic, and the identification and construction of the instrument for the study.

A questionnaire was constructed, reviewed by the research advisor, and then reproduced. Copies were mailed to Ahmadu Bello University in Nigeria, filled out, and mailed back to the researcher for analysis of the data collected.

CHAPTER II

REVIEW OF LITERATURE

The review of literature was centered around four areas relating to this study. The four areas were

1. the development of instructional media in Nigeria since independence;
2. the need for instructional media in learning;
3. the use of media in instruction; and
4. availability of non-print media for instruction.

The Development of Instructional Media in Nigeria Since Independence

Western formal education was introduced into the country by the missionaries in the 1800s with the primary purposes of educating the natives to become catechists, Sunday School teachers and pastors, and to enable them to read the Bible so that they could become good Christians.

Educational provision at that time was left in the hands of missionary organizations. Education was not adapted to the needs of the students or the nation. Because the need to develop the nation was neglected, the people were prepared only to become Christians or, at most, catechists.[5] The British colonial rulers had no defined

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[5]J. L. Lewis. Society, Schools and Progress in Nigeria. (Oxford, New York Pergaman Press. Ltd., 1965), p. 31.

policy on how to run schools until the 1900s. Between 1900 and 1960, when Nigeria got her independence, the colonial administrators tried to improve the educational system in the country. A few more schools were built and some few secular subjects were added to the curriculum. People were trained to be teachers and administrative clerks rather than pastors and catechists.

Emphasis on Educational Media

When Nigeria became independent of the British colonial rule in 1960, an effort of the newly-born state was to provide quality education for its citizens. The government's interest was in relating education to the needs of the society and to the nation at large. Some Nigerian educators, who studied mainly in the United States and Great Britain, started science programs similar to the models they had observed those two countries. This led to the development of some audiovisual aids. Emphasis was placed on using local materials to make the audiovisual aids for the teaching of science.[6]

In 1961, a group of scientists and mathematicians from Massachusetts Institute of Technology met with a group of African educators in order to learn something of the educational problems of Africa and to try to discover how American experience might be of use to Africa.[7] What was the result? Materials were prepared for

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[6]Babs A. Fafunwa. History of Education in Nigeria. (London: George Allen and Unwin Ltd., 1974), p. 189.

[7]Fafunwa, p. 92.

experimental use in primary and secondary schools. These experiments led to the development of "Modern Mathematics" for use in a number of Nigerian schools until the 1970s.[8]

Since the 1970s the major concern about the educational system has been how to expand and make education available to a greater number of people, without necessarily lowering the standard or quality of instruction. There has been an emphasis on improving instruction in Nigerian schools, particularly because of the high hopes Nigerians place on education as a potent instrument for the transformation and modernization of society. Even when the various Nigerian governments invested 40 percent of the annual budgets in education in 1970s, the observation was that quality instruction was almost impossible within the existing instructional programs, environments and methodologies.[9]

One of the instructional reforms often advocated as an effective and desirable instrument for meeting the demands of both quality and quantity education in Nigeria was the introduction of instructional television (ITV). It was introduced and used especially in secondary schools and teachers' training colleges.[10] ITV was then the most modern instructional medium in the classroom.

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[8]Fafunwa, p. 92.

[9]Imogie, Abraham I. "The Problems and Prospects of Instructional Television in Developing Countries: The Case of Nigeria." International Journal of Instructional Media, Vol. 6, No. 2, 1978-79. p. 134.

[10]Imogie, p. 134.

Needs for Instructional Media

The realities of the problems involved in trying to provide quality education side-by-side with expansion in educational opportunities in Nigeria have become more evident today. Due to the expansion rate of schools, adequate number of teachers to meet the instructional needs of the large student population has not been possible. With the desire to provide quality education, the government intensified its efforts towards media use.

In a rapidly developing country like Nigeria, the teacher at any level of education stands at the point of great change. Never in history has change so severely taxed the ingenuity of the classroom teacher on all levels of schooling in his effort to keep abreast of subject content as well as with methods of communication ideas. In some parts of the world (including the USA and England, from which Nigeria borrowed her educational system), teaching has changed from almost complete dependence on face-to-face verbal instruction. Instructors have learned that teaching requires knowledge of how to produce, select and use appropriate new communications media in order to better explain new subject content that modern development demands.[11] In addition to the traditionally accepted role of teachers as professional workers well prepared in subject content as well as in the psychology of learning, their new responsibility to plan

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[11]Medahunsi, S. O. International Journal of Instructional Media, Vol. 8, No. 1, 1980-81.

efficiently and create an effective communications environment for learning must be considered.[12]

Growing school enrollment makes it virtually impossible for the teacher to give individual attention to each student. Students of today are encouraged to assume an increasing responsibility for their own learning. Educational technology and the use of the various media enable the teacher to give the students an opportunity to pursue their own interests at their own rate and can partially alleviate the problem of increasing classroom populations.[13]

Instructional media offers today's educators some unique capabilities for meeting the problems of the increasing classroom populations. Instructional media can increase learning by helping to arouse and sustain interest, motivate, present information in a variety of ways, and provide the kind of experiences which allow for the transfer of knowledge and skills to new tasks.[14] For example, when teaching a task-performing activity like replacing a flat tire on a car, the use of slide tape presentation can both arouse the interest of the student as well as allow the teacher to go through the procedure step-by-step by moving the slides a frame at a time to allow the student a good view of every step. Because of the visual experience and the interest created from such a presentation, the

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[12]Medahunsi, S. O. "Instructional Dilemma: The Utilization of Audiovisual Materials in Four Secondary Schools in Ogun State Nigeria." International Journal of Instructional Media, Vol. 8, No. 1, 1980-81.

[13]Esther L. Berg & Florence B. Freedman. Classroom Teacher's Guide to Audiovisual Materials, (Chilton Book Co., 1969), p. 4.

[14]Berg and Freedman, pp. 4-10.

media can also enable students to learn more and remember a larger amount for a longer time than similar students taught without instructional media (audiovisual aids) were able to do.[15] Erickson, a noted authority and author in the field of audiovisual media, lists six advantages in using instructional media in education:

> "1. Instructional media provide the teacher with the means of extending the horizon of experience. This means that the student is provided with firsthand experience even while sitting in the classroom.
>
> 2. They provide meaningful sources of information.
>
> 3. They provide the teacher with interest-compelling springboards into a wide variety of learning activities.
>
> 4. They assist the teacher in overcoming the physical difficulties of presenting subject matter.
>
> 5. They provide the teacher with rich sources of student purpose when communicative materials are produced jointly by students and teachers.
>
> 6. They provide the teacher with a kit of tools to carry out diagnostic research and remedial work demanded by up-to-date instructional purposes."[16]

With the rapid development of high technology, it is becoming essential for instructional media to be used in almost every classroom. Printed media are becoming incapable of prompting the understanding and emotional response which the present and future technology will provide.[17] For example, the emotional impact of the journey of "Columbia" (rocket) to the moon cannot be felt through

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[15] Berg and Freedman, p. 4.

[16] Carlton W. H. Erickson. Fundamentals of Teaching With Audiovisual Technology, (The Macmillan Company, New York, 1965), pp. 12-27.

[17] Erickson, pp. 12-27.

reading on the pages of paper, or by looking at the picture. But there will be great impact when the journey is viewed in a film or television. Therefore, the need for non-print media in today's classroom cannot be overemphasized because of its capability for regulating and manipulating stimulus control.

The Use of Media in Instruction

Because of the potential that instructional media have in their ability to regulate and manipulate stimulus, and for extending the influence of talented individuals or great teachers to vast dimensions, all teachers and schools, both in developed and developing countries, should strife to use them. This, however, has generally been lacking in developing nations.

In an International Conference on Teaching Process in universities, with special reference to Asian countries, it was observed that, "classroom instruction in Indian universities has been in the form of lectures with the blackboard and the chalk piece as the main equipment. Faculty supervision has been in the form of monthly tests and examinations."[18] This situation is also true in the case of Nigerian universities and colleges. In a comparative study on the administration of audiovisual services in advanced and developing countries, sponsored by U.N.E.S.C.O. in 1974, there were not many audiovisual media in use. Yet there were a few media available in a number of institutions. Fourteen other African countries were

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[18]International Conference on Teaching-Learning Process in Universities. A Fresh Look into the Teaching-Learning Process and Use of Educational Technology in Universities with Special Reference to Asian Countries. University of Science, Penang (Malaysia), 1979.

surveyed, and the situation was much the same as that of Nigeria.[19]

Certain factors have been responsible for the lack of effective use of instructional media in Nigeria. Some of the factors are those as suggested by William C. Kahl:

1. There is a lack of commitment by policy makers, the school administrators, to adequately provide modern instructional media. Insufficient quantities can discourage the users.

2. There are no adequate facilities to encourage and expedite effective utilization of the instructional media. For example, some institutions have no regular supply of electricity; therefore equipment requiring electricity supply cannot be used. Some of the classes are even held in the open air instead of classrooms.

3. There is a lack of trained staff hired to take care of the instructional media equipment to ensure continuous service.

4. Not too many teachers know how to operate or use most of the media equipment.

5. Inadequate financial situations have made it difficult for institutions to purchase and maintain instructional media equipment and materials, or to maintain an adequate media center.[20]

The universities, being the highest educational institutions in a country, are perceived particularly in Nigeria as places where

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[19]Harry J. L. Jongbloed - Holland. Comparative Study on the Administration of Audiovisual Services in Advanced and Developing Countries. Part 4. pp. 22-26.

[20]William C. Kahl. Elements for Effective Audiovisual Program: A Handbook for Wisconsin Educators, (Wisconsin Department of Public Instruction, 1966), p. VIII-IX.

reforms or new things are initiated. New concepts are introduced by the universities, then copied by other institutions of higher learning. Ahmadu Bello University is one of the institutions charged with the responsibility of developing curricula and programs of instruction for primary schools, secondary schools, teachers colleges, and colleges of education. Thus, A.B.U. is responsible for making recommendations regarding methods of instruction to be followed and the materials be used. In the light of this university's status and responsibilities, this study sought to find out whether A.B.U. has and uses modern instructional media in the classrooms to enhance learning and improve its methods of instruction.

Availability of Non-print Instructional Media

The types of equipment a school has and the amount of equipment and materials are two questions school administrators and audiovisual directors are always asking. Since materials and equipment are the tools by which the teacher makes use of modern technology in improving teaching/learning process, these tools must be provided by the schools' administration in sufficient quantity and quality, and at the right time and place, so teachers can teach efficiently.[21]

As the UNESCO comparative study of the administration of audio-visual services in advanced and developing countries showed, there was no national audiovisual institution dealing with the production and distribution of audiovisual aids. There was only one independent association as of 1974 called "The Audiovisual Association of Nigeria." Since there was no official institution dealing primarily

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[21]Kahl, p. 31

with audiovisual aids, there was no set of standards for availability of equipment and materials. A small number of non-print media such as 16mm projectors (sound and silent), 8mm sound and silent projectors as well as super 8mm projectors, radio and TV sets, slide and film projectors, overhead projectors, tape recorders, and record players were available in a few schools and institutions of higher learning. Although these media were available, it was left to individual institutions to obtain what they could afford. Most schools had only one or two of the media items.[22]

Since the 1974 study, there has been tremendous improvements in the availability of the non-print instructional media in Nigerian schools. The Federal Government of Nigeria, in its policy statement on education, declared that there will be development of Teachers Resource Centers where teachers will meet for discussion. The centers will also be used for the development and testing of teaching materials.[23] All government institutions have been supplied with certain types of non-print instructional media in conformation with the policy statement on education. Higher institutions, having some degree of autonomy, were to purchase their own instructional media according to their needs and quest for development.

A similar study was conducted by Fakomogbon, which sought to find out the availability, frequency of use, and proficiency of the use of audiovisual aids by faculty in post-primary institutions of Bida Nigeria. His study showed that 66.72% of the respondents did

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[22]Jongbloed, p. 22.

[23]Federal Republic of Nigeria, National Policy on Education, (Lagos: Federal Ministry of Information, 1977), p. 29.

not have the audiovisual aids under investigation available for classroom use. Over half of the total respondents claimed that each of the 22 audiovisual aids included in the study was not available. Out of the total number of 85 respondents, only 25 indicated they used 16mm motion pictures, 27 indicated they used audio tape and 21 of them indicated that they used overhead transparency. There was generally a very low level of availability of non-print media which this study was concerned with. Very few respondents indicated that they used still-visual projection media such as overhead transparency, silent filmstrip, 2"x2" slides, opaque projection, sound filmstrip, and slide tape series. The range of non-available media in this category was from 75% - 94%. About 83% indicated that audio media, which included radio, record, and audio tape, were not available. In the category of motion pictures and television (live, recorded off the air, video tape), 8mm or super 8mm, and 16mm motion pictures, the range of non-available responses was from 83.5% to 98.8%. Other forms of media showed a considerable high level of unavailability. Even though the percentage was low, it was still higher than the level of non-print media. The level of still pictures and graphics showed 41 - 46% while object and representational media showed about 40% availability.

The Fakomogbon study was similar to this study in a number of ways. Both studies sought to discover the availability and use of certain instructional media in educational institutions in Nigeria. The methods of both studies were descriptive, and the instruments for the two studies were questionnaires. Although the two studies were both similar, however, there were a number of differences too.

While Fakomogbon's study was directed toward post primary institutions, this study was directed toward the universities.

Since the universities were left to purchase their instructional media according to their individual needs, one would expect that they would have and use more instructional media in their classrooms than other lower institutions. Ahmadu Bello University, being one of the most famous and the largest institutions in the country, has shown some degree of leadership in introducing new ideas into curriculum. It has shown such leadership in the establishment of "Educational Technology Center" which is to serve as a resource center for the teachers in the university. Those media like the non-print instructional media which were found lacking in the post primary institutions, as Fakomogbon study indicated, are expected to be found in sufficient quantities in the universities for teachers' use in their classroom.

This study sought to find out what non-print instructional media were available for the teachers and how often the teachers actually make use of the available media in their classes. The questionnaire asked about (a) the background information of the respondent: his qualifications, the subjects he is teaching, his experience and the department where he belongs, which could have some influence in his use of instructional media in his classes; and (b) the availability of the instructional media in the respondent's department, which could also have some influence in his use of the media. The choice of non-print instructional media alone was meant to restrict the study and, in addition, to see whether teachers at this educational level are familiar with most of the non-print instructional media in

question, to see how many of the media they can use in their classrooms, and to see how many of the media are available.

Although there are no set standards for what a school or institution should have in its audiovisual media center, Ahamdu Bello University should satisfy certain general requirements. William C. Kahl, a Wisconsin State Superintendent of Public Instruction stated that

> Educational media centers should be organized around the concept of offering a wide variety of services and media to all instructional and administrative units of a school system, with leadership, consultative help, and other services provided by professional media specialists and other media center personnel.
>
> The instructional program should be supported by an adequate supply of educational media and a system of making them accessible to the faculty and students.
>
> The educational media center should provide such media services as procurement, maintenance, and production of appropriate educational media to support the instructional program.[24]

Also, the Maryland State Department of Education in the United States, in its view on instructional media programs, stated that

> Experience has shown that certain quantities of tangible materials, machines, money, space and people have a greater likelihood of producing desirable results in relation to specific educational goals and objectives. Experience has also shown without certain minimum of these tangibles very limited educational opportunities are provided.[25]

In the developed countries like the United States, there are recommended standards at national, state, and local levels for required availability of non-print instructional media. Nigeria, whose

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[24] Kahl, p. 47.

[25] Criteria for Modern School Media Programs. Baltimore: Maryland State Department of Education, 1971. p. 6.

educational system is patterning itself after that of the United States, should be expected to initiate some instructional media standard for its educational institutions, especially those of higher learning, to copying what is done in some states, such as the Wisconsin State Standards for Audiovisual Equipment, (see Appendix C).[26]

If standards are set by the educational boards, each institution would strive to meet the minimum standard. Since each institution of higher learning was given the autonomy of acquiring what it requires, the media specialist in the institution should try to make the institution meet those standards set by the board of education. What is acquired by the institution should be reflected by what is available in each department.

Since there are no set standards for the institutions to follow in acquiring the instructional media equipment, the study did not concern itself with the numbers of each type of media equipment available in the departments. This study was designed to find out what non-print media equipment is available in the departments for teachers' use. By equipping each department with some basic media equipment like TV sets, 16mm projectors, overhead projectors, and slide projectors, it might make it convenient enough for the teachers to use them in the lessons.

Summary

In this review of literature, there was a brief discussion of the development of instructional media in Nigeria since her

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[26]Kahl, pp. 52-54.

independence. Because of the Nigerian educators who studied in the United States and Great Britain, science programs similar to those obtained in America and England were introduced in the curriculum. Emphasis was placed on using local materials to make audiovisuals for the teaching science. With the help of some American scientists, better audiovisual materials were introduced to increase instructional quality in the secondary schools. An example of this development was the instruction television (ITV) which was introduced and has been used in the secondary schools and teachers' training colleges since 1960.

The literature review also discussed the needs for using instructional media in the schools (especially in the institutions of higher learning) to improve the quality of instruction and learning. With the high enrollment which led to a shortage of teachers, and the rapid development in technology, there is need to incorporate modern teaching techniques which require the use of instructional media to keep up with the quality of education. In realizing these needs, this study sought to discover what non-print instructional media is available in Ahmadu Bello University, and whether the teachers make use of what is available in their classes.

CHAPTER III

METHODS AND PROCEDURES

The findings in the literature reviewed in the previous chapter have shown that instructional media plays a very effective part in the education process today. Instructional media will continue to increase in importance as teachers become more familiar with methods of integrating media into their teaching. This study was designed to discover the availability and use of non-print instructional media in Ahmadu Bello University, Nigeria. The methods and procedures followed in the study are explained in this chapter under the following headings:

1. Methods of Study
2. Sample Selection
3. Instrumentation
4. Procedures Followed
5. Compilation of Data and Analysis

Method of Study

Based on the review of literature, a survey questionnaire was developed as the instrument for the study. Copies of the questionnaires were mailed to a staff of Ahmadu Bello University, Nigeria, who did the coordination of the survey. A total teaching staff of 300 in nine out of 11 faculties (schools), and one department which serves as a resource center, were asked to respond to the questionnaire. All data collected was analyzed and tabulated.

Sample Selection

Ahmadu Bello University, Zaria, Nigeria, has 11 faculties (schools) with a total senior staff of 2004, which include administrative and teaching personnel. The population for this study was drawn from nine out of the 11 faculties (schools) through a random selection. Three hundred instructors were selected from the nine faculties through a simple random procedure for the purpose of this study as the sample population. Random sampling was used in selecting the sample population because it gave an equal chance to everyone to be selected to represent the group. Three hundred respondents were picked to give a confidence level of 95% and a percentage of acceptable error of 0.5%.

Instrumentation

A questionnaire was constructed as the instrument for the study. It was a modified version of an instrument used by Fakomogbon for a similar study. (See Appendix B)

The questionnaire consisted of three main parts. The first part was designed to find out whether non-print instructional media are available in the various departments of the university, and which ones are available. The second part asked teachers, who were respondents, to indicate how often they used the instructional media available to them in their classes. Part three of the questionnaire, which was subdivided into two, first asked teachers to indicate whether there are certain things that discouraged them from using instructional media in their classes. The second part asked teachers to indicate what could influence them or make it easier for them to use instructional media in their classes. Besides these three parts

of the questionnaire, there was the background information section. This section sought to find out teachers experiences and whether they had some audiovisual training. This section was very important because there could be some background factors which might influence the use or the non-usage of the instructional media in their classes.

Procedures Followed

After constructing the questionnaire, it was reproduced to the desired number of copies. Since the sample population was 300, it was reasonable to send more than 300 copies of the questionnaire. This was to provide for some extra copies which would be used for follow up if necessary.

Because of the distance between the researcher, who was studying in the U.S., and the target population at Ahmadu Bello University in Nigeria, the researcher could not administer the questionnaires in person. They were mailed to his brother working at the university who has some knowledge of administering questionnaires. The questionnaire were administered with the help of another profession at the university. The questionnaires were collected after they were filled out and mailed back for compilation and analysis of the data collected.

Compilation of Data and Analysis

Upon receipt of the completed survey instrument, an analysis of the data was made based upon the background information in terms of the highest qualification, teaching experience, and the audiovisual training experiences of the respondents. A comprehensive tabular result was made to show the raw figures for availability, unavailability, and classroom use responses. Percentage of classroom use for each item was also found. Further analysis was based on three

groupings of the media included in the instrument. The groupings were

1. still visual projection media (may or may not have audio),
2. audio media, and
3. motion pictures and television.

The above groupings were based on families of media described by John B. Haney and Eldon J. Ullmer.[27]

Limitations

Due to time and economic considerations, other universities in Nigeria could not be involved in this study as was thought of by the researcher. Though the study was restricted to only Ahmadu Bello University, not all the faculties (schools) of the university were included in the study. Nine out of 11 faculties were picked to represent the university. Generalization can therefore can not be made on the whole population.

The instrument of the study, which was a questionnaire, was mailed to another person in Nigeria to coordinate instead of administration by the researcher himself. The questionnaires were sent late, and coupled with the problems of postal services (particularly in Nigeria), the questionnaires did not reach the target population on time. The coordination was therefore not smooth. The instrument which was designed for the study could not be pilot-tested due to shortage of time. As a result of the lack of pilot testing of the instrument, there were some possible ambiguities in some of the

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[27]John B. Haney and Eldon J. Ullmer. Educational Communications and Technology - An Introduction for Teachers, 2nd Ed., (Dubuque, Iowa: W.M.C. Brown Company Publishers, 1975), pp. 18-21.

questions asked. Not all the media were included in the investigation; only non-print media were investigated. Due to some unintended circumstances, audio tape, which should have been included in the investigation, was left out. In view of some of the limitations mentioned above, this study was not completed on schedule.

Nevertheless, this study is a valid and useful document for the study done because there was a high percentage of the questionnaires returned, and the respondents were found to be a true representation of the population studied. The findings of the study should be generalized to only the population studied.

CHAPTER IV

REPORT AND ANALYSIS OF THE FINDINGS

This chapter will discuss the findings of the survey which was collected by the use of a questionnaire. This reveals some data about (1) the respondents' background information, (2) media availability and classroom utilization, and (3) factors that may influence the use of instructional media. A complete copy of the questionnaire used for this study can be found in Appendix A.

Background Information

Nine faculties (schools) and one department were randomly selected for this study. The breakdown of respondents from each faculty indicating the number of questionnaires sent and the number of questionnaires returned are shown in Table 1. A total of 300 questionnaires were sent; 232 questionnaires were completed and returned. This represents a 77.3% return.

Table 1 shows the percentage of questionnaires sent to each faculty (school) and the percentage returned. Based on the chi square (X^2), it shows that the return were representative of the random sample sent at 90% confidence level.

TABLE 1

Questionnaire Returns

Faculty (School)	Percent-age Sent	Percent-age Returned	X^2
Arts and Social Sciences	16	14.2	0.20
Basic Studies	8.3	5.6	0.87
Education	13.3	17.2	1.14
Educational Tech. Center	7.6	8.6	0.13
Engineering	10.6	11.6	0.09
Environmental Design	11	12.0	0.09
Human Medicine	8	6.0	0.5
Pharmaceutical Sciences	8.3	6.8	0.27
Science	8.6	10.3	0.33
Veterinary Medicine	8	7.3	0.06
Total	99.7*	99.6*	3.68

* Rounding Error

Educational Background

Table 2 reveals the respondents' educational backgrounds. These were broken down into three basic educational levels: BA/BSC., MA/MSC., and Ph.D. The data revealed that 41.3% have a Master's degree, followed closely by those with a Doctorate degree with a representation of 35.3%. This level of education involved those with medical and veterinary doctorate degrees. Only 17.6% of the respondents have the bachelors degree. Those with other forms of qualification were only 5.6%.

TABLE 2

Number and Percentage of Respondents
Educational Background

Educational Level	Respondents	
	Number	Percentage
BA/BSC.	41	17.6
MA/MSC.	96	41.3
Ph.D./DUM/MD	82	35.3
Others	13	5.6
Total	232	99.8*

* Rounding Error

Years of Service in A.B.U.

Table 3 reveals the respondents' years of teaching in Ahmadu Bello University. The data revealed that 57.7% of the respondents have taught in the university for five years or more. The number of respondents that have taught for over ten years in the university represents 8.6% of the total respondents.

TABLE 3

Number and Percentage of Respondents' Years of Teaching in Ahmadu Bello University

Years of Teaching in A.B.U.	Number	Percentage
1 year and less	10	4.3
2 years	29	12.5
3 years	28	12.0
4 years	31	13.3
5 years	28	12.0
6 years	25	10.7
7 years	19	8.1
8 years	23	9.9
9 years	15	6.4
10 years	4	1.7
Over 10 years	20	8.6
Total	232	99.5*

* Rounding Error

Audiovisual Training Experiences

Table 4 reveals the number and percentage of respondents' audiovisual training experiences. Only the type of training experience was considered. The length of training was not considered because most respondents did not respond to the "length of training" section of the questionnaire correctly. This may have been due to a limitation in the design of the questionnaire. The total number of responses, when added up, were more than the total respondents. This was because the respondents could respond to more than one question in that section.

The data revealed that 28.4% of the respondents have not had any form of audiovisual training experience. Forty-eight percent of the respondents had their training experiences while they were in college or university in the form of "teaching methods" courses. Only 25%* had "on the job" training and workshops.

TABLE 4

Number and Percentage of Respondents' Audiovisual Training Experiences

Type of Audiovisual Experience	Number	Percentage
No Audiovisual Training Experience	66	28.4
Teachers' College (Teaching Method Courses)	54	23.2
College/University (Teaching Method Courses)	112	48.2
On the Job Training	36	15.5
Workshop	22	9.4
Others	14	6.0

Availability and Nonavailability of Non-Print Instructional Media in Each Department

Comprehensive results showing availability, nonavailability, and lack of familiarity of each media item are shown in Table 5. Number and percentage are shown in Appendix E. For ease of interpretation and the understanding of people who may not be familiar with research terms, only frequency counts and percentages were used throughout the analysis.

The sum of raw figures under "not familiar," "not available," and "available," did not add up to the 232 total responses expected for all the media items. This is so because several respondents did not indicate their responses for either one or a number of media on the questionnaire. Despite the fact that specific instructions were given on the questionnaire to respond to all questions, some of the respondents simply left certain columns blank. One of the respondents just responded to the background information and left out all the other parts. Some of the respondents simply responded to the background information, leaving out all the other parts. Others indicated the availability of certain media but did not indicate whether they used the media or not. And some of the respondents indicated the number of times they used certain media, but did not indicate whether they were available in their departments or not. One respondent claimed that none of the media listed could be used in teaching the subjects he was teaching. This could be due to ignorance in the versatility of certain instructional media.

For all the media items listed, an average of 17.1% of the total respondents indicated that they were not familiar with the media. An average of 45.4% of the respondents indicated that the media were not

TABLE 5

Percentage of Respondents That Indicated Nonfamiliarity, Nonavailability, and Availability of the Stated Media in Their Departments

Media Item	Not Familiar	Not Available	Available
	Percent	Percent	Percent
Overhead Projector	20.6	30.6	46.9
Filmstrip (Silent)	21.5	40.9	33.6
2" x 2" Slide	26.7	36.6	32.7
Opaque Projector	23.7	42.2	29.7
8mm or Super 8mm Projector	30.6	40.0	23.2
16mm Motion Pictures Projector	18.1	31.8	43.9
Slide Tape Series	17.6	49.1	27.1
Television (Live Off the Air Programs)	7.3	53.4	33.1
Television (Recorded Programs)	7.7	48.7	37.9
Video Cassette Recorder	6.8	57.3	28.8
Video Cassette (Taped Instructional Segments, Commercially or Locally Produced)	11.2	62.9	21.1
Sound Filmstrip Series	14.6	58.1	21.1
Recorded Discs	24.5	59.9	6.8
Still Pictures (Bulletin Boards, Dry Mounted Materials)	19.3	39.2	37.0
Radio (Live Programs)	5.6	43.9	43.5
Overhead Transparencies	12.5	43.9	36.2
Specimens (Need Not be Scientific)	23.2	34.4	31.4
Others	2.1	5.6	3.8

available in their departments. Only 31.4% indicated that the media were available in their departments. The remaining 6.0% of the respondents did not indicate whether they were unfamiliar with the media listed or whether the media were available or not.

Regarding the use of all the media listed, an average of 9.7% of the respondents indicated that they used the media less than four times in a year. Those who indicated that they used the media four to six times in a year averaged only 5.2%. Those who indicated that they used the media seven to ten times in a year also averaged only 6.0% of the total respondents. Only 4.0% of the total respondents indicated that they used the media weekly, and 2.5% of the respondents claimed that they used the media daily. The number of those who indicated that they have never used any of the media listed and those who did not indicate any use of the media were 72.2% of the total respondents. This shows that a very high number of respondents have not used the media listed. Only an average of 27.7% of the respondents have used the media listed. A comprehensive result showing the frequency of use of the media under investigation can be found in Table 6.

The 17 items listed in the questionnaire were categorized into three groupings for further analysis. The groupings were:

1. Still Visual Projection Media,
2. Audio Media, and
3. Motion Pictures and Television.

Two items did not fall into any of the three categories and were therefore left out in this analysis. Those items were:

TABLE 6

Percentage of Respondents Classroom Use of Each Media Item During the Year

Media Item	Less Than Four Times	4-6	7-10	Weekly	Daily	Never and No Answer
	%	%	%	%	%	%
Overhead Projector	15.5	9.0	7.7	3.8	2.5	61.2
Filmstrip (Silent)	16.3	5.6	7.3	0.8	0.0	69.8
2" x 2" Slide	9.9	8.6	7.3	1.2	0.4	72.4
Opaque Projector	12.5	5.6	3.8	0.8	0.4	76.7
8mm or Super 8mm Projector	9.0	5.6	4.3	0.4	0.4	80.1
16mm Motion Pictures	16.3	8.6	13.3	3.4	0.0	58.1
Slide Tape Series	7.7	6.0	7.3	1.2	0.0	77.5
Television (Live Off the Air Programs)	5.1	2.5	4.3	13.3	5.6	68.9
Television (Recorded Programs)	7.7	5.6	3.8	10.7	8.1	63.7
Video Cassette Recorder	12.9	5.1	5.6	0.4	0.4	75.4
Video Cassette (Taped Instructional Segments, Commercially or Locally Produced)	9.4	3.4	3.4	0.8	0.0	81.8
Sound Filmstrip Series	11.6	3.8	1.7	1.2	0.8	80.6
Recorded Discs	3.8	0.8	0.0	0.0	0.0	95.2
Still Pictures (Bulletin Boards, Dry Mounted Materials)	7.3	6.0	9.4	5.6	6.4	65.0
Radio (Live Programs)	6.8	3.0	6.0	12.5	8.1	63.3
Overhead Transparencies	7.7	4.7	7.3	6.8	5.6	67.6
Specimens (Need not be Scientific)	6.4	4.7	10.3	6.0	1.2	71.1
Others	1.7	0.4	0.4	0.0	1.7	95.6
$\overline{X}$ %	9.7	5.2	6.0	4.0	2.3	72.2

1. Still pictures (bulletin boards, dry mounted materials)
2. Specimens (need not be scientific).

Still Visual Projection Media

The items involved under this category were overhead projector, filmstrip (silent), 2" x 2" slide, opaque projector, slide tape series, sound filmstrip series, and overhead transparencies.

The availability table (Table 7) shows that only 32.4% of the respondents indicated that the media in this category were available in their departments. Those who did not indicate whether the media listed in this category were available or not were 5.0%. The remaining 62.5% of the respondents were either not familiar with the media or indicated that the media were not available. The media that were commonly available in this category were overhead projector and transparencies with a mean ($\bar{X}$) of 41.5% respondents. The least available medium was sound filmstrip series with a $\bar{X}$ of 21.1% respondents.

Audio Media

The items involved under this category were only recorded discs and radio. Due to some unintended circumstances, audio tape was left out. Only 25.1% of the respondents indicated that the items in this category were available. Over 50.0% of the total respondents indicated that the items in this category were not available to their departments, and 15.0% claimed that they were not familiar with the media in this category. The more commonly available of the two media in this category was radio, with an average of 43.5% of the total respondents indicating the availability of the medium. Only 6.8% of the respondents indicated that recorded discs were available in their departments. See Table 8 for details.

Motion Pictures and Television

The media items involved in this category were 8mm or Super 8mm projector, 16mm motion pictures projector, television (live off the air programs), television (recorded programs), video cassette recorder, video cassette (taped instructional segments, commercially or locally produced).

In this category, about 50.0% of the respondents indicated that the media in this category were not available in their departments. Those who said the media in this category were available in their departments were only 31.3% of the total respondents. About 17.0% of the respondents claimed that they were not even familiar with the media in this category. The most available medium in this category was 16mm motion pictures projector, with about 44.0% of the total respondents. The least available medium was video cassette (taped instructional segments, commercially or locally produced). The most unfamiliar medium to the respondents was 8mm or Super 8mm projector, with 30.6%. See Table 9.

AVAILABILITY OF MEDIA BY CATEGORIES

Media Item	Not Familiar	Not Available	Available
	Percent	Percent	Percent
TABLE 7			
Still Visual Projection Media			
Overhead Projector	20.6	30.6	46.9
Filmstrip (Silent)	21.5	40.9	33.6
2" x 2" Slide	26.7	36.6	32.7
Opaque Projector	23.7	42.2	29.7
Slide Tape Series	17.6	49.1	27.1
Sound Filmstrip Series	14.6	58.1	21.1
Overhead Transparencies	12.5	43.9	36.2
$\overline{X}$ %	19.5	43.0	32.4
TABLE 8			
Audio Media			
Recorded Discs	24.5	59.9	6.8
Radio	5.6	43.9	43.5
$\overline{X}$ %	15.0	51.9	25.1
TABLE 9			
Motion Pictures and Television			
8mm or Super 8mm Projector	30.6	40.0	23.2
16mm Motion Pictures Projector	18.1	31.8	43.9
Television (live off the air programs)	7.3	53.4	33.1
Television (recorded programs)	7.7	48.7	37.9
Video Cassette Recorder	6.8	57.3	28.8
Video Cassette (taped instructional segments, commercially or locally produced)	11.2	62.9	21.1
$\overline{X}$ %	17.2	49.0	31.3

Table 10 reveals the frequency of use of each and all the media in the "still visual projection" category. The average frequency of use of all the media in this category was only 6.0%. The daily frequency of use of all the media in this category was just 1.3%. Only about 2.2% utilization in this category was on a weekly basis. The highest frequency of use of all the media in this category was "less than four times a year" with 14.7%.

TABLE 10

Still Visual Projection Media

Media Item	Less Than Four Times	4-6	7-10	Weekly	Daily	Never and No Answer
	%	%	%	%	%	%
Overhead Projector	15.5	9.0	7.7	3.8	2.5	61.2
Filmstrip (Silent)	16.3	5.6	7.3	0.8	0.0	69.8
2" x 2" Slide	9.9	8.6	7.3	1.2	0.4	72.4
Opaque Projector	12.5	5.6	3.8	0.8	0.4	76.7
Slide Tape Series	7.7	6.0	7.3	1.2	0.0	77.5
Sound Filmstrip Series	11.6	3.8	1.7	1.2	0.8	80.6
Overhead Transparencies	7.7	4.7	7.3	6.8	5.6	67.6
$\bar{X}$ %	14.7	6.1	6.0	2.2	1.3	72.2

Table 11 notes the frequency of use of each and all the media in the "audio" category. The average frequency of use of all the media in this category was 4.0%. About 95.0% of the respondents have never used recorded discs in their classes. A few respondents claimed to have used radio on weekly and even daily basis.

TABLE 11

Audio Media

Media Item	Less Than Four Times	4-6	7-10	Weekly	Daily	Never and No Answer
	%	%	%	%	%	%
Recorded Discs	3.8	0.8	0.0	0.0	0.0	95.2
Radio	6.8	3.0	6.0	12.5	8.1	63.3
$\bar{X}$ %	5.3	1.9	3.0	6.2	4.0	79.2

Table 12 reveals the frequency of use of each and all the media in the category of "motion pictures and television." The average frequency of use of all the media in this category was only 6.7%. The highest frequency of use of all the media in this category was "less than four times a year" with an average frequency of 15.4%. The least frequency was the "daily" basis which was only 2.4%. The most commonly used medium in this category was the 16mm motion pictures projector. An average of 71.3% of the respondents have never used the media in this category.

TABLE 12

Motion Pictures and Television

Media Item	Less Than Four Times	4-6	7-10	Weekly	Daily	Never and No Answer
	%	%	%	%	%	%
8mm or Super 8mm Projector	9.0	5.6	4.3	0.4	0.4	80.1
16mm Motion Pictures Projector	16.3	8.6	13.3	3.8	0.0	58.1
Television (live off the air programs)	5.1	2.5	4.3	13.3	5.6	68.9
Television (recorded programs)	7.7	5.6	3.8	10.7	8.1	63.7
Video Cassette Recorder	12.9	5.1	5.6	0.4	0.4	75.4
Video Cassette Recorder (taped instructional segments, commercially or locally produced)	9.4	3.4	3.4	0.8	0.0	81.8
$\bar{X}$ %	15.4	5.1	5.7	4.9	2.4	71.3

The number and percentage of respondents view about factors that discourage them from using instructional media in their classes are shown on Table 13. When the number of responses were added up, it was found that they were more than the number of respondents. This is so because the respondents were allowed to make more than one response in that category.

As already shown in Table 5, an average of 45.4% of the respondents indicated that the media under investigation were not available to faculty in their departments. About 32.0% of the responses indicated that the equipment/materials were only available in the resource center and it was far from their departments. About 40.0%

of the total responses indicated that most of the equipment/materials were not even available in the resource center. Some of the respondents indicated that there was no resource center where they could borrow the equipment/materials. The responses represented just 16.3% of the total responses. Out of the total responses, only about 10.0% indicated that they had no time to plan to use instructional media because they had too many lessons.

TABLE 13

Number and Percentage of Total Responses Relating to Factors that Discourage the Use of Instructional Media

Type of Influence	Number	Percent
Nothing discourages me.	67	14.4
I don't know how to use any of the media.	48	10.3
None of the equipment/material is available in my department.	75	16.1
The equipment/material are only available in the resource center and it is far from my department.	75	16.1
Most of the equipment/materials are not even available in the resource center.	92	19.7
There is no resource center where I can get the equipment/materials for teaching.	38	8.1
There are a variety of the equipment/materials.	35	7.5
I have too many lessons - no time to plan.	23	4.9
Others	12	2.5
Total	465	99.6*

* Rounding Error

Table 14 represents the number and percentage of the responses that indicated the factors that would encourage the use of instructional media in the classroom. About 60.0% of the respondents indicated that they would use instructional media in their classes if the media were made available in their departments. About 48.0% of the responses indicated that they would like instructional media made available in the classrooms. Those respondents indicating that they would use instructional media in their class if they knew how to use the media were represented by 28.8% of the total responses. Only 10.3% of the responses indicated a willingness to use instructional media in the classroom if workloads were reduced so that the instructor could find more time to plan for using media.

TABLE 14

Number and Percentage of Responses Relating to Factors That Would Encourage the Use of Instructional Media

Type of Influences	Number	Percent
I would use instructional media if I knew how to use the medium.	67	16.1
I would use instructional media if the media were made available in the classrooms.	111	26.7
I would use instructional media if the media were made available in my department.	139	33.4
I would use instructional media if there were a resource center on campus where I could borrow some media.	67	16.1
I would use instructional media if my workload were reduced so that I could have more time for planning.	24	5.7
Other	7	1.6
Total	415	99.6*

*Rounding Error

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

No one can force teachers to improve their methods of instruction or to be more effective. They can only be motivated and encouraged to become more creative and more willing to adapt other ways that may help improve their instructional strategies. This can be done by providing more instructional media that is closer to them for their convenience. They could also be motivated and encouraged by improving their media technology skills through seminars and in-service training, in order to prepare them to use any instructional media that they might be exposed to.

Restatement of the Problem

The Federal Government of Nigeria, realizing the importance of instructional media (audiovisual aids) teaching, developed a policy statement of providing audiovisual aids to its educational institutions since 1977. Higher institutions of learning, including the universities, were to acquire the audiovisual aids according to their needs. In effect, Ahmadu Bello University set up an educational technology center to acquire and supply all forms of instructional media to teachers for use in their classes.

This study sought to discover whether non-print media are available in the university and the various departments of the university.

The study also sought to answer the following questions:

1. What kinds of non-print media are available?

2. Do the teachers make use of the media in their classrooms?

3. How often do the teachers use the media for instruction in their classrooms?

From the data in Table V, it seems that all the media under investigation were found to be available in the university, but in different proportions. An average of 45.4% of the respondents indicated that all the media listed were not available in their departments. Only 31.4% indicated that the media listed were available in their departments, and 17.1% of the respondents were not familiar with the media under investigation. Although the data revealed a considerable degree of availability of the listed media in the university, 72.2% of the respondents have never used any of the media for instruction in their classes (see Table VI). Almost no media was used on a daily basis, and most of the respondents who indicated that they used instructional media in their classes, mainly used them between four to ten times in a year. The most used categories of media were those in the "motion pictures and television" category. The least used were those in the "audio" category.

About the factors that discourage the use of media in instruction, 45.4% of the responses indicated that it was because the media were not available in their departments. And 32.0% indicated that the media were available only in the resource center and it was far from their departments, so they couldn't use the media. For the factors that would encourage the use of instructional media in teaching, 60.0% of the responses indicated that they would use media

in their classes if the media were made available in their departments. A high percentage of the respondents also wanted the media to be made available in their classrooms to enable them to use the media in teaching.

Methods and Procedures

The method used for this study included identification of the target population, the review of relevant literature, and the design of a questionnaire as the instrument for the study.

The questionnaire asked the respondents to indicate the availability and non-availability of the instructional media listed. There was also a column to indicate whether they were unfamiliar with the media items listed. Three hundred questionnaires were sent to a randomly selected sample population at Ahmadu Bello University, Zaria, Nigeria, through a coordinator. Out of the 300 questionnaires sent, 232 respondents completed and returned the questionnaires. This represented a 77.3% return.

Each section of the questionnaire was analyzed by tabulating the various responses to each of the questions. The totals and percentages for each of the questions provided the data for the findings of the study.

Findings

After tabulating the questionnaires sent to each faculty (school) investigated, and the return from each faculty, a chi square (X^2) was used to determine if the respondents were a true representation of the population. The data revealed that the respondents were true representation of the population.

in their classes if the media were made available in their departments. A high percentage of the respondents also wanted the media to be made available in their classrooms to enable them to use the media in teaching.

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Findings

After tabulating the questionnaires sent to each faculty (school) investigated, and the return from each faculty, a chi square (X^2) was used to determine if the respondents were a true representation of the population. The data revealed that the respondents were true representation of the population.

The highest percentage of those who responded to this survey had a Masters degree, followed by those with a Doctorate degree, with percentages of 41.3% and 35.3% respectively. Only 17.6% of the total respondents have taught in Ahmadu Bello University for over five years, while 20 respondents have taught for more than ten years. It is encouraging to note that over 70.0% of the respondents have had some form of audiovisual training experience. Only 28.4% of the respondents indicated that they had no form of audiovisual training experience.

Conclusions

Based on the data received and tabulated, the following conclusions were drawn:

1. Most of the teachers who responded to this survey have taught in A.B.U. for over five years, and so should have good knowledge of what is available to them in terms of teaching aids.

2. Since the respondents of this study have been found to be an accurate representation of the sample population, the findings could be generalized to the population.

3. Most of the respondents have had some kind of audiovisual training experiences. Seventy percent of the respondents have had some type of audiovisual training experience.

4. Almost all the media listed were indicated to be available but very few of the media were indicated to be commonly available in the departments. Most of the media listed were not available for teachers in their departments. An average of 45.4% of the respondents indicated that all the media listed were not available in their departments. Only 31.4% of the respondents said the media were

available in their departments, and the rest of the respondents said they were not even familiar with the media listed.

5. Though there were a considerable number of non-print instructional media available in the university, the data revealed that those which were available were not being used for teaching. Where a medium was found to be used, it was found to be rarely used. Seventy-two percent of the respondents indicated to have never used any media in teaching. Only the 16mm motion picture projector was commonly used, with about 40.0% of the respondents indicating using it.

6. The availability of instructional media in a resource center that is far from the classes might have discouraged the teachers from obtaining the media for teaching.

7. Making some instructional media available in the various departments may encourage the teachers to try to incorporate the use of media in teaching. The data revealed that 60.0% of the respondents favored having the media in their departments.

From the data collected, it can be correctly assumed that the use of media in instruction is generally accepted to be very useful.

Recommendations

Based on the data collected for this study and the conclusions drawn, it is recommended that

1. Ahmadu Bello University should purchase more of various types of non-print instructional media for use in teaching.

2. The university should ensure that the media available be properly maintained in order to provide good service to the teachers. Although there was no item in the questionnaire asking for the

conditions of the available media, a number of respondents wrote that many of the available media were not in working condition.

3. Instructional media should be made available to each department so as to encourage the teachers to incorporate the use of media in their teaching.

4. Some basic media equipment, for example television monitors, 16mm or super 8mm projectors, and slide carrousels, should be made available permanently in the major lecture rooms. This would reduce the problem of carrying such equipment from the resource center, which a number of teachers may not be willing to do.

5. Teachers should be better informed as to what media is available in either their departments or in the resource center. The data revealed that, while some respondents indicated that certain media were not available in their departments, others indicated that the same media were available. This showed that some teachers are not aware of what is available around them.

6. Those who do not know how to use most of the non-print media should be encouraged to learn how to use them by exposing them to places where they can learn how to use them (for example, seminars, in-service training, etc.).

Recommendations for Further Studies

Due to certain limitations, some of which already have been mentioned, this study did not cover all the aspects of instructional media. More comprehensive and specific studies of instructional media could be done as follows:

1. The effectiveness of instructional media in learning and teaching in Ahmadu Bello University.

2. The attitudes of teachers towards media use in teaching.

3. The availability and use of instructional media in Nigerian universities (not only A.B.U. alone).

4. The proficiency of use of media in A.B.U.

5. The administration of instructional media in Nigerian educational institutions.

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APPENDIX A

P.O.Box 621
Menomonie, WI 54751
U.S.A.
16th Feb. 1983.

Dear Sir,

Attached, is a survey questionnaire intended to obtain information about the non-print instructional media (audio-visual aids) which are available for your use.

Your assistance is encouraged so that we may discover important ways to improve the overall quality of teaching in Ahmadu Bello University.

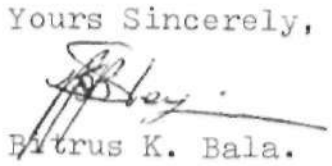
You are one of a selected list that are requested to respond to this questionnaire and your prompt attention in responding to the questionnaire will be appreciated. The return of your copy is very important for the accuracy of this survey. Your response will be kept confidential.

Kindly return your completed questionnaire to the secretary of your department so that it can be collected and sent back to reach me before the 15th March, 1983.

If you will like to receive a copy of the result of this survey, give your full postal address on a piece of paper and clip it inside the questionnaire so that it can be mailed to you.

Thank you for your prompt attention.

Yours Sincerely,



Bitrus K. Bala.

Section I

Background information

Please be as sincere as possible in your responses.

Kindly respond to all questions.

Fill in the blank

1. Faculty _____

2. Department _____

3. Highest qualification held _____

4. Sunject(s) taught _____

_____

5. How long have you been teaching at the Ahmadu Bello University? Put a tick (✓) against the appropriate number of years.

____	1 or less	____	7
____	2	____	8
____	3	____	9
____	4	____	10
____	5	____	Over 10 years
____	6		

6. Put a tick (✓) against the audiovisual (AV) training experiences you had and state how long they were.

____	None	For how long?
____	Teachers' College (Teaching Methods Courses)	_____ years
____	College/University	_____ years
____	On the job	_____ months
____	Workshop	_____ days
____	Others (please specify)	_____

Section II

Please read the following instructions very carefully and respond to the questions that follow.

For columns A, B, and C, place a check (✓) under the appropriate column that best describes your situation of each item of the list.

For column D, circle the number which best describes how often during the year you use each item for teaching in your class(es).

Example

	A	B	C	D					
				Classroom use during the year					
	Not familiar	Not available	Available	Never	Less than 4 times	4 - 6	7 - 10	Weekly through the year	Daily through the year
1. Filmstrips	( )	( )	(✓)	0	(1)	2	3	4	5
2. Opaque projector	(✓)	( )	( )	0	1	2	3	4	5

This means that filmstrips are available in your department and you use them less than four times in a month, but you are not familiar with what an opaque projector is.

Instructional Media in your Department

Item	A Not familiar	B Not available	C Available	D Classroom use during the year: Never	Less than 4 times	4 - 6	7 - 10	Weekly through the year	Daily through the year
1. Overhead projector.....	( )	( )	( )	0	1	2	3	4	5
2. Film strip (silent).....	( )	( )	( )	0	1	2	3	4	5
3. 2" X 2" slide.....	( )	( )	( )	0	1	2	3	4	5
4. Opaque projector.....	( )	( )	( )	0	1	2	3	4	5
5. 8mm or Super 8mm tapes.....	( )	( )	( )	0	1	2	3	4	5
6. 16mm motion pictures.....	( )	( )	( )	0	1	2	3	4	5
7. Slide tape series.....	( )	( )	( )	0	1	2	3	4	5
8. Television (live off-the-air programmes).....	( )	( )	( )	0	1	2	3	4	5
9. Television (recorded programmes).....	( )	( )	( )	0	1	2	3	4	5
10. Video cassette recorder....	( )	( )	( )	0	1	2	3	4	5
11. Video cassette (taped instructional segments, commercially or locally produced).....	( )	( )	( )	0	1	2	3	4	5
12. Sound filmstrip series.....	( )	( )	( )	0	1	2	3	4	5
13. Recorded discs.....	( )	( )	( )	0	1	2	3	4	5
14. Still pictures (bulletin boards, dry mounted materials).....	( )	( )	( )	0	1	2	3	4	5
15. Radio (live programmes)....	( )	( )	( )	0	1	2	3	4	5
16. Overhead Transparencies....	( )	( )	( )	0	1	2	3	4	5
17. Specimens (need not be scientific).....	( )	( )	( )	0	1	2	3	4	5
18. Others, (please specify)... _____	( )	( )	( )	0	1	2	3	4	5

Section III

Influence

In your opinion what discourages you from using some instructional media in teaching your lessons?

Put a tick (✓) against the statement that best describes your opinion. You can choose more than one statement.

A. 1. _____ Nothing discourages me.

2. _____ I don't know how to use any of them.

3. _____ None of the materials is available in my department.

4. _____ The materials are only available in my resource centre and it is far from my department.

5. _____ Most of the materials are not even available in the resource centre.

6. _____ There is no resource centre where I can get the materials for teaching.

7. _____ There are no variety of the materials.

8. _____ I have too many lessons - no time to plan.

9. _____ Other (please specify) _____

B. What would make it easier for you to use instructional media in your lesson? Put a tick (✓) against the appropriate statements. You may choose more than one statement.

1. _____ I would use instructional media if I knew how to use the medium.

2. _____ I would use instructional media if the media are made available in the classrooms.
3. _____ I would use instructional media if the media are made available in my department.
4. _____ I would use instructional media if there can be a resource centre on campus where I can borrow some media.
5. _____ I would instructional media if my workload is reduced so that I can have more time for planning.
6. _____ Other (please specify) _____

Once again, thank you very much for filling out the questionnaire. Your cooperation and help are greatly appreciated. Now, please submit it to the secretary of your department.

APPENDIX B

AUDIOVISUAL AIDS SURVEY

This survey is designed to determine: (1) the audiovisual aids available in the schools, (2) how often the A-V aids are used in the classroom, (3) how proficiently they are utilized. The results will be used to improve the A-V program.

1. School _____

2. Years of teaching experience _____ _____

3. Highest degree held _____ _____

4. A-V Training (circle no. of courses) 1 2 3 4 or more

5. Additional A-V experience (circle)

   A. Workshop B. On the job C. Other

A-V Aids - Availability, Classroom Use, and Proficiency

Please indicate by your response if an A-V aid is available in your school. Also indicate how often it is used in classroom and how proficiently it is utilized.

A. Availability - Place a Check ( ) by each item which is unavailable in your school. Do not mark in columns B or C if an A-V aid is unavailable.

B. Classroom Use - Please circle the number which closely describes the amount of use you make of each A-V aid available in your school.

1. A-V aid is not presently used in my classes (Never)
2. Used in at least one of my classes during the past year (Yearly)
3. Used in at least one of my classes during the past month (Monthly)
4. Used in at least one of my classes on a weekly basis (Weekly)
5. Used in at least one of my classes on a daily basis (Daily)

Proficiency: After you have rated your use of the A-V aid available, indicate how proficient you feel you are in using each.

1. None: I don't know how to use this A-V aid.
2.
3. Moderate: I know how to use this medium but I don't feel confident when using them.
4.
5. High: I know how to use this A-V aid and I feel confident in using it in a learning situation.

Sample 1	A Unavailable	B Classroom Use	C Proficiency
Video tape	(✓)	1 2 3 4 5	1 2 3 4 5

The above response would indicate that video tape is not available in your school.

Sample 2	A Unavailable	B Classroom Use	C Proficiency
16mm Motion Picture	( )	1 2 3 (4) 5	1 2 3 4 (5)

The above response would indicate that 16mm motion pictures are available and are used on a weekly basis in your classes and you also feel highly confident in using them.

		C									
		Class					Practicality				
		Poor	Fairly good	Good	Very good	Excellent	Not at all desirable				Very desirable
		1	2	3	4	5	1	2	3	4	5
1. Overhead transparencies	( )	1	2	3	4	5	1	2	3	4	5
2. Filmstrips (silent)	( )	1	2	3	4	5	1	2	3	4	5
3. 2" by 2" slides	( )	1	2	3	4	5	1	2	3	4	5
4. Opaque projected	( )	1	2	3	4	5	1	2	3	4	5
5. Enlarged [illegible]	( )	1	2	3	4	5	1	2	3	4	5
6. Reproductions, pictures,	( )	1	2	3	4	5	1	2	3	4	5
7. Slide trays, racks	( )	1	2	3	4	5	1	2	3	4	5
8. Sound-filmstrips, 8 mm. (film strips & actual [illegible] or record)	( )	1	2	3	4	5	1	2	3	4	5
9. Radio (live off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
10. Television (live off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
11. Television (recorded off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5
[illegible]	( )	1	2	3	4	5	1	2	3	4	5

		C					C				
		Classroom Use					Proficiency				
		Never	Rarely	Occasionally	Frequently	Daily	Not applicable	Poor	Fair	Good	Excellent
1. Overhead transparencies	( )	1	2	3	4	5	1	2	3	4	5
2. Filmstrips (silent)	( )	1	2	3	4	5	1	2	3	4	5
3. 2" by 2" slides	( )	1	2	3	4	5	1	2	3	4	5
4. Opaque projectuals	( )	1	2	3	4	5	1	2	3	4	5
5. Curator super 8mm	( )	1	2	3	4	5	1	2	3	4	5
6. Motion pictures	( )	1	2	3	4	5	1	2	3	4	5
7. Slide tape series	( )	1	2	3	4	5	1	2	3	4	5
8. Sound-filmstrips series (filmstrips & audiotape or record) . .	( )	1	2	3	4	5	1	2	3	4	5
9. Radio (live off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
10. Television (live off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
11. Television (recorded off-the-air programs)	( )	1	2	3	4	5	1	2	3	4	5
12. Television (live instructional programs)	( )	1	2	3	4	5	1	2	3	4	5
13. Television (recorded instructional programs)	( )	1	2	3	4	5	1	2	3	4	5
14. Tape recorder (audio)	( )	1	2	3	4	5	1	2	3	4	5
15. Talking typewriter or talking terminal	( )	1	2	3	4	5	1	2	3	4	5
16. Video tape recorder (television)	( )	1	2	3	4	5	1	2	3	4	5
17. Felt or flannel boards	( )	1	2	3	4	5	1	2	3	4	5
18. Displays	( )	1	2	3	4	5	1	2	3	4	5
19. Still pictures (bulletin boards, dry-mounted materials)	( )	1	2	3	4	5	1	2	3	4	5
20. Models or mock-ups (not including "real-life" equipment)	( )	1	2	3	4	5	1	2	3	4	5
21. Actual equipment and/or materials used in the field . . .	( )	1	2	3	4	5	1	2	3	4	5
22. Specimen (could not be collected)	( )	1	2	3	4	5	1	2	3	4	5
23. Other, specify	( )	1	2	3	4	5	1	2	3	4	5

APPENDIX C

Wisconsin Standards for AV Equipment

Item	Recommended Number	
	Basic	Advanced
16mm sound projector	1 per 4 teaching stations plus 2 in the IMC	1 per 2 teaching stations plus 4 in the IMC
2" x 2" remotely controlled slide projector	1 per 5 teaching station	1 per 3 teaching station
Filmstrip or combination filmstrip - slide projector	1 per 3 teaching stations	1 per teaching station
Sound filmstrip unit	1 per 5 teaching station plus 2 in the IMC	1 per 3 teaching stations plus 5 in the IMC
10 x 10 overhead projector	1 per 2 teaching station plus 2 in the IMC	1 per teaching station plus 2 in the IMC
TV receiver (23" screen)	1 per 20 students for the maximum number of students viewing programs at any one time	1 per teaching station if programs are available
Filmstrip viewers	1 per teaching station plus 3 in the IMC	1 per teaching station plus 15 in the IMC
Listening stations	6-10 portable earphones at a ratio of 1 to 5 teaching stations plus 2 per IMC	Ratio at 1 per 3 teaching stations plus 4 in the IMC
Overhead projector (10 x 10 auditorium type)	1 for each large group instructional area	
Opaque projector with adequate light control	1 per building	1 per floor plus 1 in the IMC
Video tape recorder	1 per 15 teaching stations with a minimum of 1 per building	1 per 5 teaching stations with a minimum of 2 per building

Item	Recommended Number	
	Basic	Advanced
Micro readers, some with microfiche attachments if material is available	1 per IMC	1 per 10 teaching stations located in the IMC
Micro reader printer	1 per IMC only if materials are available	
Micro projector	1 per school	1 per science room
Record players	1 per teaching stations	1 per teaching station plus earphones for each; where listening stations are utilized, 6-10 earphones needed
Audio tape recorder	1 per 5 teaching stations plus 10 in the IMC	1 per 4 teaching stations plus 2 in the IMC
Cassette tape recorders	2 per teaching stations plus 10 in the IMC	5 per teaching station plus 10 in the IMC
Projection Cart	1 per each piece of heavy equipment	1 permanently assigned in each classroom
Light control	Every classroom should have adequate light control - all types of projected media should be able to be used effectively	
Radio receiver	3 per building	1 per teaching station
	1 per building should be battery operated. 1 set should be all-wave for language use.	
Projection screen	1 permanently mounted per classroom at least 70 x 70 plus portable screens as needed.	

APPENDIX D

QUESTIONNAIRE RETURNS

Faculty (School)	Number Sent	Percent Sent	Number Returned	Percent Returned	X^2
Arts & Social Sciences	48	16	33	14.2	0.20
Basic Studies	25	8.3	13	5.6	0.87
Education	40	13.3	40	17.2	1.14
Educational Tech. Center	23	7.6	20	8.6	0.13
Engineering	32	10.6	27	11.6	0.09
Environmental Design	33	11	28	12.0	0.09
Human Medicine	24	8	14	6.0	0.5
Pharmaceutical Sciences	25	8.3	16	6.8	0.27
Science	26	8.6	24	10.3	0.33
Veterinary Medicine	24	8	17	7.3	0.06
Total	300	99.7*	232	99.6*	3.68

* Rounding Error

APPENDIX E

NUMBER AND PERCENTAGE OF RESPONDENTS THAT INDICATED NONFAMILIARITY, NONAVAILABILITY AND AVAILABILITY OF THE STATED MEDIA IN THEIR DEPARTMENTS

Media Item	Not Familiar		Not Available		Available	
	Number	Percent	Number	Percent	Number	Percent
Overhead Projector	48	20.6	71	30.6	109	46.9
Filmstrip (silent)	50	21.5	95	40.9	78	33.6
2" x 2" Slide	62	26.7	85	36.6	76	32.7
Opaque Projector	55	23.7	98	42.2	69	29.7
8mm or Super 8mm Projector	71	30.6	93	40.0	54	23.2
16mm Motion Pictures Projector	42	18.1	74	31.8	102	43.9
Slide Tape Series	41	17.6	114	49.1	63	27.1
Television (live off the air programs)	17	7.3	124	53.4	77	33.1
Television (recorded programs)	18	7.7	113	48.7	88	37.9
Video Cassette Recorder	16	6.8	133	57.3	67	28.8
Video Cassette (taped instructional segments, commercially or locally produced)	26	11.2	146	62.9	49	21.1
Sound Filmstrip Series	34	14.6	135	58.1	49	21.1
Recorded Discs	57	24.5	139	59.9	16	6.8

Con't.

Media Item	Not Familiar		Not Available		Available	
	Number	Percent	Number	Percent	Number	Percent
Still Pictures (bulletin boards, dry mounted materials)	45	19.3	91	39.2	86	37.0
Radio (live programs)	13	5.6	102	43.9	101	43.5
Overhead Transparencies	29	12.5	102	43.9	84	36.2
Specimens (need not be scientific)	54	23.2	80	34.4	73	31.4
Others	5	2.1	13	5.6	9	3.8

APPENDIX F

NUMBER AND PERCENTAGE OF RESPONDENTS CLASSROOM USE OF EACH MEDIA ITEM DURING THE YEAR

Media Item	Less Than 4 Times		4-6		7-10		Weekly		Daily		Never & No Answer	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1	36	15.5	21	9.0	18	7.7	9	3.8	6	2.5	142	61.2
2	38	16.3	13	5.6	17	7.3	2	0.8	0	0.0	162	69.8
3	23	9.9	20	8.6	17	7.3	3	1.2	1	0.4	168	72.4
4	29	12.5	13	5.6	9	3.8	2	0.8	1	0.4	178	76.7
5	21	9.0	13	5.6	10	4.3	1	0.4	1	0.4	186	80.1
6	38	16.3	20	8.6	31	13.3	8	3.4	0	0.0	135	58.1
7	18	7.7	14	6.0	17	7.3	3	1.2	0	0.0	180	77.5
8	12	5.1	6	2.5	10	4.3	31	13.3	13	5.6	160	68.9
9	18	7.7	13	5.6	9	3.8	25	10.7	19	8.1	148	63.7
10	30	12.9	12	5.1	13	5.6	1	0.4	1	0.4	175	75.4
11	22	9.4	8	3.4	10	3.4	2	0.8	0	0.0	190	81.8
12	27	11.6	9	3.8	4	1.7	3	1.2	2	0.8	187	80.6
13	9	3.8	2	0.8	0	0.0	0	0.0	0	0.0	221	95.2
14	17	7.3	14	6.0	22	9.4	13	5.6	15	6.4	151	65.0

Con't.

Media Item	Less Than 4 Times		4-6		7-10		Weekly		Daily		Never & No Answer	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
15	16	6.8	7	3.0	14	6.0	29	12.5	19	8.1	147	63.3
16	18	7.7	11	4.7	17	7.3	16	6.8	13	5.6	157	67.6
17	15	6.4	11	4.7	24	10.3	14	6.0	3	1.2	165	71.1
18	4	1.7	1	0.4	1	0.4	0	0.0	4	1.7	222	95.6
$\overline{X}$ %		9.7		5.2		6.0		4.0		2.3		72.2