

PROBLEMS OF USING AUDIO – VISUAL AIDS IN MATHEMATICS TEACHING IN SELECTED SCHOOLS IN IKPOBA OKHA LOCAL GOVERNMENT AREA OF EDO STATE: THE WAY FORWARD.

by

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Abstract

This study is designed to ascertain the opinion of teachers in selected public and private schools in Ikpoba Okha Local Government Area of Edo State on the problem associated with the use of audio-visual aids in mathematics teaching and to suggest possible ways of improvement. Questionnaire was used to collect data from 49 mathematics teachers randomly selected from selected public and private schools in Ikpoba Okha Local Government Area of Edo State. The data collected was analyzed using SPSS (Statistical Package for Social Sciences). The findings in this study showed that the problems of using audio - visual aids are lack of proper training of teachers on the use of audio – visual aids, lack of audio – visual aids in schools and time wastage if they are not properly managed. Based on the findings in this study it was recommended that teachers should be trained on how to use audio – visual, aids and government should provide adequate audio – visual aids in schools.

Keywords: *Audio – visual aids, mathematics, teaching*

Introduction

Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. Educational methods include storytelling, discussion, teaching, training, and directed research. ([Wikipedia](#), 2018)

Education is also the acquisition of knowledge and skills through the process of teaching. It is necessary for everybody to acquire education. Education could be formal or informal. In this study, emphasis will be on formal education which is education gained within the school system. To achieve formal education, various subjects including mathematics are taught in schools. The teacher uses different methods and aids to impact knowledge on the learner. These aids include: visual aids, audio aids, audio – visual aids.

Audio aids are those devices that can be heard and are used in the classroom to make the teaching and learning process easier. Examples of audio aids are radio, tape - recorder, cassette player etc.

Visual aids are those devices that can be seen and are used in the classroom to make the teaching and learning process easier. Examples of visual aids are video, charts, slides etc.

Audio - visual aids are those devices that can be seen and heard and are used in the classroom to make the teaching and learning process easier. Examples of audio - visual aids are film projector, computer, television, vcd player etc.

These aids are very important in the teaching - learning process since it helps the teacher to present the lesson in a logical, effective, planned and easier manner which makes the students retain the concepts been taught for a longer period.

Ghulam et al (2015) sees visual aids as tools that help to make an issue or lesson clearer or easier to understand.

Shirkrishina and Badri (2014) explained that the use of audio – visual aids is a practical solution for providing direct life – like experience in and outside the classroom.

Liberty (2008) explained that some of the disadvantages of using audio – visual aids in teaching includes time consumption and inadequate space for their accommodation. Barau and Emmanuel (2013) explained that instructional materials have no value in teaching/learning process if they

cannot be seen or heard. They also explained that the use of audio – visual aids like computers in teaching mathematics in secondary schools give room for students increased individualization of learning. They finally explained that information and communication technology which is part of audio-visual aids application gives room for better education for the students. The combination of visual aids and audio aids is effective since the two main important senses are involved. Also, it helps students to retain more knowledge of the subject matter particularly the main points. Rishi (2016) explained that audio – visual aids help students to understand and engage in the lesson.

Statement of the Problem

Mathematics is one of the core subjects taught at primary and secondary school levels and the performance is generally poor. Many researches have been carried out to improve the poor performance of students in mathematics using audio – visual aids and the problem continues. In this study, we are interested in the problem of using audio – visual aids in mathematics teaching in schools in Ikpoba Okha Local Government Area of Edo State.

Purpose of the Study

The aim of this study is to identify problems associated with using teaching aids in mathematics teaching. Specifically, its objectives are to:

1. Identify the problems of using teaching aids in mathematics teaching
2. Suggest possible ways of improvement

Research Questions

In this study, the following research questions are raised.

- i. What are the problems of using teaching aids in mathematics teaching?
- ii. What are the solutions to the problems identified in this research?

Methodology

Research Design: This study is a descriptive survey designed to find out the problems of using audio – visual aids in mathematics teaching, 49 mathematics teachers were randomly selected from public and private secondary schools in Ikpoba Okha Local Government Area of Edo State. Questionnaire was used to collect data from the respondents. The questionnaire consists of two sections. Section A provides the personal information of the respondents while section B was designed to obtain information on the problems of using audio – visual aids in mathematics teaching. The instrument was validated by experts in mathematics education and test – retest method was used in evaluating the reliability of the instrument. Its reliability coefficient was 0.85 which shows that the instrument is reliable. The data collected was analyzed using SPSS (Statistical Package for Social Sciences)

Population of the Study: The population of the study consists of all mathematics teachers in Ikpoba – Okha Local Government Area of Edo State.

Sampling Procedure: Random sampling was used in the selection of schools and respondents in this research work.

Research Instrument

Questionnaire was constructed. Section A was designed to obtain personal information of the mathematic teachers while section B was designed to obtain information on the problems of using audio –visual aids in mathematic teaching.

Validity and Reliability of the Instrument

The instrument was validated by two experts in Mathematics education to ensure that the items measure what they are expected to measure. Test – retest method was used in evaluating the reliability of the instrument. The reliability of 0.85 was obtained which shows the instrument is reliable.

Method of Data Collection

The researchers personally administered the questionnaires to the mathematics teachers to ensure that they were correctly completed.

Method of Data Analysis

In this study, data collected were analyzed using SPSS (Statistical Package for Social Sciences).

Results

Table 1: Bio – Data of Respondents

Variable	Frequency	Percentage (%)
Gender		
Male	28	57.1
Female	21	42.9
Qualification		
ND	0	0
HND	3	6.1
NCE	6	12.2
B.(Ed)	15	30.6
B.Sc	21	42.9
Others	4	8.2
For how long have you been teaching mathematic?		
1 year	3	6.1
2 years	10	20.4
3 years	5	10.2
4 years	5	10.2
5 years and above	26	53.1
What is your position as a mathematics teacher?		
HOD	6	12.2
Class teacher	41	83.7
Others	2	4.1

Based on table 1, more of the respondents are male, B.Sc holders and many of the teachers have taught for about 5 years and above.

Table 2: Problems of using audio – visual aids in mathematics teaching

S/ N	Variables	Strongly agreed	Agreed	Disagree		Strongly Disagreed			
		No	%	No	%	No	%	No	%
1	Lack of proper training of teachers on the use of audio – visuals	26	53.1	19	38.8	2	4.1	2	4.1
2	Audio – visual aids may be unavailable or unreliable	65	30.6	18	36.7	12	24.5	4	8.2
3	Audio – visual aids may be wrongly chosen or applied	21	42.9	20	40.8	5	10.2	3	6.1

4	Audio – visual aids may waste time and energy if they are not properly managed	16	32.7	32	65.3	1	2.0	0	0
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Based on table 2, it is clear that lack of proper training of teachers on the use of audio – visual aids, lack of audio – visual aids in schools and audio – visual aids may waste time and energy if they are not properly managed are the problems of using audio – visual aid in mathematics teaching.

Conclusion

The use of audio – visual aids have very great impact in the teaching of mathematics. Based on the results of this study it can be concluded that lack of proper training of teachers on the use of audio – visuals aids, lack of audio – visual aids in schools and audio – visual aids may waste time and energy if they are not properly managed are the problems of using audio – visual aids in mathematics teaching.

Recommendations

Based on the findings in this study, the following recommendations are made:

1. Government, schools and other stakeholders should provide enough funds for audio – visual aids
2. Qualified and competent teachers that can use audio – visual aids should be employed to teach mathematics
3. Teacher should be trained regularly on the use of audio – visual aids in the teaching of mathematics
4. Teachers need to recognize the audio -- visual aids that can enable them achieve their instructional objectives without wasting their time in the teaching of mathematics.

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