

EFFECT OF VISUALS INSTRUCTIONAL AIDS AND LEARNING
ACTIVITIES ON STUDENTS' ACHIEVEMENTS IN HISTORY
IN SELECTED LAGOS STATE SENIOR SECONDARY SCHOOLS

By

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Abstract

This study investigated the effect of visual oriented learning strategies on students' achievement in History in selected secondary schools in Lagos state. The treatment schedules of the experimental study used two different instructional methods i.e. the use of visuals and modified lecture method. Both the control and experimental groups were examined with pre-test questions. The groups were taught a topic in History "Effect of geography on the land and the people of Nigeria". The experimental groups were taught with visuals and they were exposed to production of visuals. While the control group was taught with modified lecture method. The three groups were evaluated given the same set of twenty item post-test questions. Questionnaire were also used to compare the attitude of the three groups on visuals. There was a clear evidence that their performance improved greatly due to the use of visuals. The researcher therefore discussed the need to involve students in production of visuals to achieve the set objectives.

Introduction

Teachers and materials play a crucial role in successful teaching and learning. Teaching and learning will be seriously affected where the two variables are not adequate. Therefore, it is pertinent that student's cognitive ability and teaching strategies should be combined to produce the desired objectives. History has recently become very unpopular among students in general. It is a subject that is supposed to hold a leading position among all other school subjects because it has been considered as an indispensable tool in the development of a democratic nation. The attitudes of students should be well motivated and protected. However, experience has shown that teachers find it difficult to detect the factors responsible for teacher's inability to perform and also to detect the problems

associated with student's failure and teachers need to take into account the learning characteristics of the pupils and the desired learning outcomes. Teacher's choice of teaching style is a matter of teacher's professional judgement.

Students at any level need help in recognizing their problems and in practical methods, which would help them, overcome their problems. The most familiar way of measuring and describing by comparing teaching styles. Teachers ought to realise that students prefer to obtain and process information in distinctive personal ways. Some students prefer to work alone, others enjoy group experiences. Some learn better when information is presented visually; others learn better by hearing the information. Students can be encouraged to contribute to instructional materials by providing individual aids, which must be interpretable. It is important to note that teachers at any level must be visually literate; also teachers must possess the ability to read and write visual messages just as they are needed to read and write printed ones. Akinpelu (1997)

Dondis (1993) sees visual literacy as the learned ability to interpret visual messages accurately to create such messages. Thus the interpretation and creation in visual literacy may be said to be parallel to reading and writing in print literacy. Teachers need to be cautious about visual aids, to avoid confusion, they need to give explanation. Also teachers must employ some of the techniques and activities in encoding visuals. The techniques include: making students produce visual materials themselves, students to manipulate colours, shapes, symbols and spatial relationships; students to develop perpetual skills and expressive abilities, students practice in drawing inferences from pictorial sequences; this equally aims at distinguishing fantasy, persuasion and propaganda from facts.

It is imperative that visuals must be moderately designed in such a way that much emphasis is not laid on unrealistic concept. That is why Dywer (1998) noted that visuals make it difficult for learners to identify the essential learning cues from among the more realistic background stimuli. Also Adekoya (1999) asserted that the amount of realism either too much or too little may adversely affect achievement.

Statement Of The Problem

It has been observed recently that teachers of history have restricted themselves to classroom situation only, whereas other methods of instruction could be used to enhance the teaching of the subject.

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This research therefore intends to look into how teachers of history can teach more effectively, by looking into effects of visual preparation in instruction on students' achievement in history. Teachers are expected to adopt students' participation in preparation of visual aids to foster certain types of learning. A teacher's role is to help students to contribute fully and to ensure that they function effectively. Most teachers fail to realise that the available teaching strategies can be fully manipulated for effective teaching. Also, teachers do not realize that they can start their lesson with a didactic style, setting out what are to be done in the lesson and then move to a facilitator or pupil centered style as pupils tackle the work set. Then return to a more formal style at the end of the lesson to check that the learning intended had taken place.

Purpose of The Study

The purpose of this study therefore is not to restrict students to narrow band of learning, teachers need to adopt the modern and exciting learning aids that are available. There is the need to guide students in the design of visuals and on how to prepare them for instruction, which will eventually aid students' achievement in history. And also motivate them to make on their own, their own visuals

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Research Questions

Will learning history in schools be enhanced by production of visual materials by learners?

Which visually based production will be most effective in enhancing learning History at senior secondary school level?

Will there be a change in the interest of learners, as a result of involvement in visual production.

Research Hypotheses

This research will attempt to test the following hypotheses:

H₀₁: There will be no statistically significant difference in the history achievement of learners taught by the modified lecture method
Students learning by production of visuals produced drawing
Students learning by groups prepared bulletin boards.

H₀₂: There will be no statistically significant difference in the interest of learners in history as a result of production of visuals.

Significance Of The Study

Instructional planning and implementation in History education may not be fully or properly carried out if the educational personnel-teachers, guidance-counselors, curriculum designers, administrators etc. are not grounded in the empirical data on the degree of production and the mode of preparing visual media by the students themselves, in the teaching of history.

This study is an attempt to measure how students use visual on how to use visual media resources in learning history in Lagos State Senior Secondary Schools. This research work will be useful, particularly in the area of improvisation of inadequate or unavailable materials due to high cost of imported visual materials and lack of fund in many schools.

Furthermore, history is an elective subject in the Senior Secondary School. The subjects are clearly stated in the West African Examination Council ordinary level syllabus. In order to implement these objectives, history teachers should recognize the uniqueness of each learner and provide the conditions whereby individual differences, interests, capabilities and needs are met through a variety of methods, instructional media process, tools and materials. This study is aimed at looking into the extent to which visual materials can improve learning.

Research Design

This study is a quasi-experimental design, using randomized group, pre-test, post-test design. A topic was taught to the two experimental groups and one control group using different strategies.

Population And Sample

The experiment was carried out in 3 Senior Secondary Schools in Lagos State. The schools are:

1. Government Senior Secondary School
2. Lagos state model senior secondary school, Kankon.
3. Government Senior Secondary School, Ijanikin.

The respondents were senior secondary school 1 in the above schools. The experimental groups were:

1. Government Senior Secondary School, Ijanikin.
2. Kankon Senior Secondary School.

The control group was Government Senior Secondary School

Sample And Sampling Technique

The sample of respondents comprised of the experimental and control group, the respondents involved 20 students from each school using stratified random sampling technique and a total of 60 students were used.

Instrument For Data Collection

The instruments used to collect data for the study were of three types:

20-items achievement test based on the topic of instruction, which was "effect of Geography on the land and peoples of Nigeria".

Achievement Test

Two different 20 items multiple choice tests were given based on the topic taught "The effect of Geography on the land and peoples of Nigeria". The twenty - (20) item achievement test were of 2 types. One type was used for pre-tests while the second one was used for post-test. The questions covered how geographical location has influenced the peoples' dressing, food, physique, trading activities, accommodation, recreation and transportation systems. The questions also covered the different ethnic groups in Nigeria and their cultural variations.

Attitudinal Questionnaire Scale On The Use Of Visuals For Teaching History

The twenty (20) item interest attitudinal questionnaire consisted of two sections: Section A: dealt with gender of respondent's and age

Section B: Focused on attitude of students on needs for designing visuals, it was used to know the problems encountered in producing visuals and seek respondent's opinions if visuals are relevant to them

Validation Of Instrument

The instruments were designed by the researcher in accordance with the research hypotheses raised. The validity of the instruments was determined by experience professionals and other expert in the field of Educational Technology. The validity of these instruments was further ascertained in a pilot study, which was conducted in Awori senior secondary school Ojo, Lagos State. The validity of the instruments was determined by using test retest method at three weeks interval. It was validated at 0.01

Procedure for data collection

The three schools were involved in the experimental study. The experimental groups were:

1. Government Senior Secondary School, Ijanikin.
2. Lagos state Model Senior Secondary School

The control group:

1. Government Senior College, Ajara, Baccara.
The experimental groups were treated with the use of visuals and were given the opportunity to produce their own visuals for the topic taught. The control group was taught the same topic using the modified lecture method without visuals and was not given the opportunity to participate in making visuals. The three groups were given the post-test which were made of 20 questions as given in pre-test questions. The researcher monitored the collection of the instrument to ensure hundred percent collections.

DATA ANALYSIS

TABLE: 1 t-test of Exp. & control groups (Pre-test)

Groups	Count	Mean	df	$\bar{O}$	t-val.	t-cal.	Sig.
Exp.	40	11.6	39	1.908	+1.658	-0.137	P>0.05
Control	20	11.7	19	1.838	+1.658	-0.137	P>0.05
Total	60		58		—		

There is a difference but such a difference is not that significant.

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TABLE: 2 Post test t-test ——— control group.

Groups	Count	Mean	df	$\bar{O}$	t-val.	t-cal.	Sig.
Exp.	40	17.4	39	2.071	+1.65	3.639	P<0.05
Control	20	11.7	19	1.838	+1.65	3.639	P<0.05
Total	60		58		8	—	

There is a significant differences due to the treatment effect (t-cal. > t-val.; df = 58, P<0.05)

Findings

The following could be deduced from the analysis of results

(1) Null hypotheses 1 was rejected as there is significant difference in History achievement of learners taught by lecture method and those taught by the following activities methods:

Students learning by activities involving 10 hrs produced drawing
Students learning by group prepared board.

2) A null hypothesis 2 was also rejected because there is significant change in the interest of learners in History as a result of visual based activities in History learning.

Discussion

From all the information gathered through the use of the research instruments and analysis obtained, it was observed that there is a clear indication that most students are ignorant as far as their involvement in production of visual is concerned. There had been no serious use of visuals for teaching some concepts, topics and activities in history curriculum.

This study shows that students are not visually competent because they did not know the relationship between production of visuals and their future lives. Nwaboku (1993) states that competence in visual language skill for appreciation of visual symbols and signals, development of reading competence and writing visual symbols are considered to be necessary ingredients for visual literacy, this assertion is confirmed by Abolade (1990). Moreover, the purpose of this is focused on effects of visual oriented learning strategies on student achievement in History. It is observed therefore that basic and fundamental materials, tools and equipment that are required for teaching to enhance effective teaching and learning of history are not readily available in Lagos State Secondary Schools. The implication of this is that provision of such materials, tools and equipment becomes the responsibility of students, parents and guardians, a demand which is not likely to be met by any of the parties satisfactorily because of the socio-economic problems being experienced presently in Nigeria.

This researcher also observed that a large number of students are more comfortable with the modified lecture method of teaching. This might be due to the non-chalant attitude of teachers to employ other strategies to teach. Information sharing between teacher and learners will aid students. Therefore an effective teacher is seen according to Akinpelu (1997) as one that can provide an instructional environment capable of positively and maximally influencing the learners behaviour patterns. Such a teacher should be professionally equipped with the needed techniques and tools that will assist him guide the learners to acquire the needed skills and attitudes.

During the course of this study it has been established that display and usage of visuals as instruments of instruction do not encourage invitation and does not kill creativity in learners, rather it increases learners understanding by relating visual experiences to real life situations it encourages interactivity, it makes students to learn with ease, taking into consideration the large population of eight to one hundred and twenty students packed together in a class that is normally meant for

twenty five to thirty students. This abnormal situation was stipulated by some researchers. According to Bork (1987) when class size gets above ten, the learning situation becomes difficult for classroom interaction activity. Hence visual media is capable of elevating the spectator students to participant students. Thus use of pictures, cut-outs, posters, charts, maps, diagrams, cartoons, natural and man made objects, as well as artifacts and visits to galleries and museums will go a long way in assisting students to have better understanding of some historical concepts, ideas and topics since generally students may have difficulties in carrying out assignment that are practical oriented and since history teacher may not even demonstrate the procedure involved in doubt of the task at hand.

Conclusion

The following conclusion can be drawn based on the findings of the research for this study;

a) In view of the achievement of students as regards the use and production of visuals in History, using the scores of pre-test, post-test and interest questionnaire, it was observed that the experimental groups perform better and their level of interest as far as visual is concerned is higher. This was as a result of the training received by the experimental groups on the use and production of visuals, these achievement were compared using the t-test.

It was discovered that whenever students are allowed to produce visuals with regard to different modes or types of visual there is clear evidence that the performance will improve greatly. Therefore using visuals as an instructional medium, make teaching and learning of history interesting and attract student's participation.

The production of bulleting boards by students enhanced the learning of history; it made the teaching of history easier for the teacher and learning for the students more permanent than the abstract nature in the absence of visuals as an instructional medium.

The findings have shown that student's interest had been greatly increased towards subject; their cognitive skill had been highly manifested. Although a lot of time was put into it hereby helping students to be more creative and imaginative.

Finally, there is the need for history teachers to carry their students along in the production of visuals for various history topics and concepts as needs arise because the teaching and learning of history require students participation and the use of relevant media to achieve the set objectives at every level of curriculum implementation.

Recommendations

In spite of the facts that the data gathered in this study are from limited homogenous samples drawn from three schools in Lagos State, the results have shown that the involvement of students in preparing visuals can be incorporated in the learning of history. However, this method can be adopted not only in history as a subject but also in other related subjects in Lagos State.

Based on this results, the researcher suggests the following recommendations; that: Teachers should create time to involve students in the method of preparing visuals

History students at senior secondary school level should be allowed to provide visuals to develop their cognitive ability.
 Visuals should be made available for history with other instructional media and should be kept in history rooms
 All the Local Education district in Lagos State should encourage students to use Local materials to provide visuals
 Teachers should ensure that visuals produced by students are used regularly.

Suggestions For Further Study

Having carefully considered the finding: ¹⁵ study, the following suggestions are offered for further research.

An investigation into the attitude of teachers to the use of visuals as instructional media in some selected secondary schools.
 Effects of visuals as instructional media in the teaching of literature in Lagos State Schools.
 Evaluation of the available instructional media and teachers skill in the use of such media in Secondary schools in Oyo State.

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