

EFFECT OF INSTRUCTIONAL TELEVISION PACKAGE ON THE STUDENTS' PERFORMANCE IN THE LEARNING OF HISTORY IN SENIOR SECONDARY SCHOOLS IN MINNA METROPOLIS

BY

ADAMU ZUBAIRU EVUTI

Department of Science Education, Federal University of Technology, Minna

E-mail: Zubairu2007@yahoo.com

Abstract

The paper investigated the effect of instructional television package on the history in Senior Secondary Schools in Minna Metropolis. Looking at the various approaches of media and technology in schools, students can learn with media and can also learn from technology. Regardless of approach, media and technology have been introduced into the schools because it is believed that they can have positive effects on teaching and learning process. Looking at the over population and ever increasing population of Nigeria as a developing nation faced with alarming increase in child birth rate and the explosive population increase in schools, teaching and learning have been a challenge to the development of educational curriculum and institution and in addition inadequate new instructional technologically based materials and shortage of qualified manpower, scattered population, inadequate and overtaxed administrative structure and more or less the resistance to change on the part of both administrators and teachers which has posed problems for them. This study has developed various sets of history instructional package that can be used individually and collectively. The result from this study could be useful for government stakeholders in educational technology to improve the teaching and learning situation. Also the information generated will assist designers of instructional curriculum materials to plan a more effective curriculum. The analysis used 0.05 alpha level as the significant level for this study. Conclusively, based on the findings of the study, these major conclusion were drawn that the use of Educational Television and closed circuit Television will produce significant improvement in the pretest performance scores of students in history, as well there was substantial difference in the mean scores of students who were taught using instructional Television package, and those who were taught using the normal chalk and talk method. The differences were in favour of students taught using instrument, therefore it implies that there is a great improvement on students taught with the instrument. Finally, national Educational Technology centre should liaise with various state resources centres, and allied centre to produce relevant materials on educational media to be used in secondary schools in Nigeria.

Background to the Study

There are two major approaches to using media and technology in schools. First, students learn from media and technology and they can learn with media and technology. Learning from media and technology is often referred to in terms of instructional television; computer based instruction or integrated learning system. According to Joneses Reeves (1996), Learning with technology is referred to in terms such as cognitive tools and constructivist learning environment. Regardless of the approach, media and technology have been introduced into schools because it is believed that they can have positive effects on teaching and learning processes.

Looking therefore at the ever-increasing population of Nigeria as a developing country faced with the alarming increase of child birth and the explosive population increase in schools, teaching and learning have become a challenge to the development of educational curriculum and instruction. In addition, inadequate new instructional technologically based materials, and the shortage of qualified manpower, scattered population, inadequate and over-taxed administrative structure and more or less the resistance to change to the new technology strategies on the part of both the administrators and teachers which pose some challenges to them.

Apart from the problems of knowledge explosion brought about by the rate at which certain knowledge becomes out-dated and technical progress will advance. In this research therefore, to meet the challenges of the time, traditional methods have to be improved so as to increase their efficiency and

it is essential also that new teaching to be adopted, it is very necessary for this pace be kept on education with the increase in the population to be educated, also schools must be taught with the improved strategy with the requirements upon the new strategies in the teaching and learning situation. This therefore brought the research in the effects of instructional television package on the students' performance in history. This research used the designed history achievement package to teach a large class in the history lesson i.e. the Closed Circuit Television Education Package. This research is advising Curriculum Planners (Developers) to take into account the effect which this medium will bring to educational circle. Alabi (2001) opined that curriculum is a continuous activity that must be considered all the elements of the curriculum. The changes in students cannot be realized unless there are interaction planned and controlled activities between the teachers, students, equipment, materials and all the environment in which these activities takes place. As opined by Alabi (2002) when teachers and students interact there will be exchange of information. Thus communication is very vital and a major tool that could be employed to accomplish the intentions of the curriculum.

Onasanya and Adegbija (2007) emphasized on the need for massive use of instructional media in the classroom, but one big question is that are these instructional materials available in schools? As important as they are, it has been widely reported by a growing body of researchers that they are either not available or inadequately provided in most Nigerian schools. Dike (1999), Mohammed (1997), Ezeudu (2000), Adamu (2002) Adelakin (2003), Zubairu (2004) and Gana (2006) all have asserted to this opinion. Based on the foregoing, Adebimpe (1997) warned that teachers should not use the absence or inadequacy of instructional media as an excuse to resort to poor teaching and learning instead they should resort to improvisation as an alternative approach towards keeping history teaching and learning afloat and meaningful during such a difficult time. Araromi (1987) also cautioned that improvised instructional materials must necessarily serve that purpose for which it is intended. It should not just be a provision of a piece of media as a substitute of what is not available. However, Umeodugu (2000) emphasized that for effective instructional processes, emphasis should be more on those media materials that appeal to more than one sense of perception. This remarks is based on the fact that learning experiences, which evoke the involvement for as many sense organs as possible to enable the teacher to convey meaningful information to the learners and stimulate students to receive and process all the necessary information for the development of cognitive, effective and psychomotor skills: this is what has drawn attention to their research.

Media effects on Learning outcome are common in the field of Educational Technology. Example of such research are those of Okobi (1994), Okoro and Etukudo (2001), Adamu (2002), Otegbayo (2005) and Kutigi (2006), who mentioned the effects of instructional media and material.

Statement of the Problem

The Foundation for the use of instructional television is brought out from the problems faced by the poor performance in history by the students in both classroom and that of West African Examination Council (2005) final results in Niger state secondary schools. Lack of interest and poor performance by the student on history is attributed to lack of using instructional materials by the teachers of history.

Purpose of the Study

The purpose of the study is to develop a set of history Achievement instructional package that will enhancing the students performance in history learning in schools.

Objectives of the Study

- To develop packages for teaching and learning for students of history.
- Using closed circuit television to present package for the students.
- To investigate the effectiveness of instructional Televisions in teaching.
- To find the effects of the package on the following variables (a) Gender (b) Scoring ability levels i.e high, low and medium levels.

Theoretical Framework

The intrinsic value of instructional material has been recognized by philosophers, psychologists, instructional designers, materials developers and researchers (Hoban, Hoban and Zissman, 1937, Bruner, 1966. The Roman poet quoted by Goldstein, 1973). What is entrusted to the fickle ears make less impression on the mind than things which are actually presented to the eye as which the sense stones up for himself (P.24). In Educational Technology, the abstract concrete concept has become a major theoretical framework in the first half of the 20th century through the works of Hoban, Honan and Zissman (1937); Dale 1946 and Bruner (1965) as shown in figure 1.

1. Words
2. diagrams
3. maps
4. flat per films
5. slide
6. films
7. models
8. objects
9. total situation

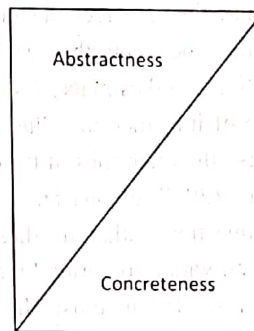


Fig. 1 Source: Hoban, and Zissman Hierarchy of Teaching Methods (1937-39)

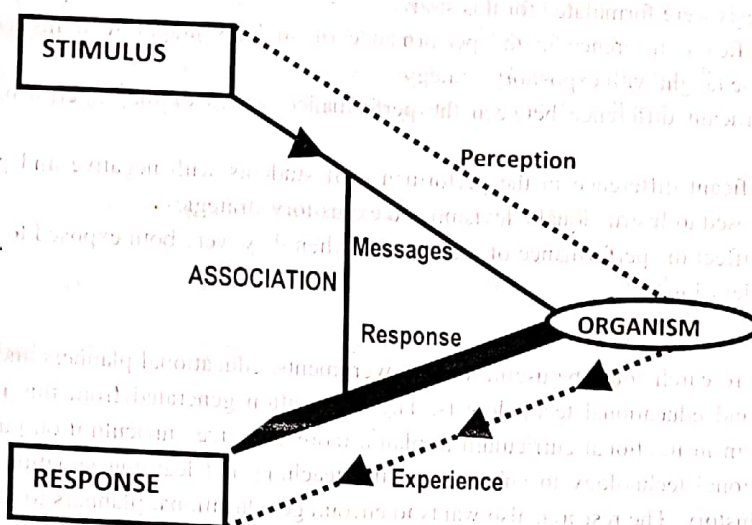
Constructivist learning environments encompass many different applications of media and technology in educations for the cognitive scientists teaching theories, instructional designers and teachers involved in creating constructivist learning environments, learning refers to the development of mental dates and abilities of all types including conceptual knowledge, technical skills, automatic rules, mental models and problem solving. Forms of higher level out comes such as motivation, intellectual curiosity and the habits of lifelong learning that are especially relevant because these are the most challenging types of learning to teach and learn.

According to Honebein (2001), to meet the ambitions learning outcomes a constructivists learning environments must adhere to seven goals. These are:-

1. Provide learners with experience and knowledge construction process.
2. Provide experience and appreciation for multiple perspectives.
3. Arrange learning in realistic and relevant contexts.
4. Encourage township and voice in the learning process.
5. Encourage the use of multiple modes of representation.
6. Embed learning in social experience
7. Encourage self awareness of the knowledge construction price

Many psychologists in their theories explained the role media plays in the curriculum and instructional development. Notable among these theories are the stimulus-response theory, theories of reinforcement, motivation and trait treatment interaction. This research is based on the trait-treatment interaction theory which in itself, could be regarded as advance form of the stimulus-response theory which was developed by Skinner and Thorndike. It explains that in every activity there is a situation called stimulus that which affects the individual (organism) and there is a response. A particular stimulus which therefore becomes connected with its response by the "S-R" bond so that on future occasions a repetition of the stimulus (S) will produce the response (R). The theory is shown in Figure 2.

Figure 2: MODEL OF (S-R) LEARNING THEORY



Source: Abimbade A. (1999).

In relation to the education media, the stimulus therefore is the element of the learner's environment which is specially designed and manipulated as much as possible and presented to the learner like television, video tapes and photographs. The organism is the learner who perceives the stimulus and produces responses based on his experiences while the response is the action ordination to the learner based on the interaction with the stimulus, his perception and experiences. The trait treatment interaction theory belongs to differential psychology and it could be found in the world of Branch (1970), Berliner and Cohen (1973), Camean (1974), Allen (1975), Hunt (1975) and Heidt (1978). These psychologists explained that there is connection between personality traits of the learner on one hand and variables of the instructional situation on the other. Hence, the effect of learning must be instructional treatment and specific characteristics of the individual learners.

The theory has the following assumptions:

1. That personality traits and environment factors are interactively related.
2. That behaviour in general and learning results in particular can only be explained and understood by taking this interactive relation into consideration.
3. That the behaviour of individuals can be deliberately influenced through a manipulation of environmental factors.
4. That different personality trait requires different environmental factors, if the same behaviour or the same results are to be achieved.
5. That the personality traits under consideration must at least have a certain degree of stability and generality.
6. That as different cognitive processes is held responsible for the difference hearing results, the process features of learning emphasized as against the product aspect.

Research Questions

The study is intended to answer these research questions:-

1. Will there be any difference between the performance scores of the experimental and control groups?
2. Does attitude affect students' performance when exposed to Television Instructions and expository teaching strategies?
3. Does the school type (single and mixed) affect academic performance of students when exposed to Television and expository instructional strategies?
4. Does gender affect the performance of students in history?

Research Hypothesis

The following null hypothesis were formulated for this study.

1. There is no significant difference in the performance of students taught with Instructional television and those taught with expository strategy.
2. There is no significant difference between the performance scores of the experimental and control groups.
3. There is no significant difference in the performance of students with negative and positive attitude when exposed to Instructional television and expository strategies.
4. Gender does not affect the performance of the students when they were both exposed to the use of instructional television.

Significance of the Study

The result of this research could be useful to the governments, educational planners and policy makers, history teachers and educational technologists. The information generated from this research would aid those who design instructional curriculum to plan a more effective curriculum on putting in mind the study of educational technology to enhance a better teaching and learning situation for the students' performance in history. The research also wants to encourage educational planners to pay more attention in their curriculum design, to enhance the teaching and learning process and also to assist in the designing of a befitting educational technology studies.

Finally, the research wants to encourage other educational technology teachers/researchers in the mass production of instructional materials for the smooth teaching and learning in students' performances.

Delimitation of the Research

The scope of this research is to find out the effectiveness of instructional television package on the performance of students in history in Senior Secondary Schools. The research being an experimental one will limit itself to all senior secondary schools in Bosso Local Government area of Niger State, Nigeria. This research will focus on the Atlantic Slave Trade in West Africa. The researcher used experimental and control groups and gender to compare their performances in the post-test.

Table 1: Schematic presentation of selected school

Group	Schools	Male	Female	Total
Experimental	ABSS, Minna	15	5	20
	GDSS, Bosso	13	7	20
	CAIS, Bosso	16	4	20
Control Group	GDSS, Maikunkele	16	4	20
	GDSS, Beji	15	4	20
	GDSS, Kampala	10	10	20
	Total	94	34	120

Source: Niger State Ministry of Education 2010

All the schools selected for the study were government owned schools, with the same facilities and co-educational institutions.

Method of Data Collection

The data obtained for this research was from the results of post-test which they were scored according to HAT marking scheme. The scores here formed the basis of data for testing hypotheses for this research.

Method of Data Analysis

The scores of the students in both groups for the pretest and posttest were collected and arranged in frequency distribution table. Means, standard deviation and t-test statistics were used to analyse and to test this hypothesis formulated, the levels of the significance adopted for the analysis was $p < 0.05$. this level of significance form the basis for retaining or rejecting each of the hypothesis.

Results

Table 2 t-test result for pre-test of experimental and control groups:

Variable	N	Df	X	SD	t-value calculated	P	Remarks
Experimental Group	60	118	4.133	1.420	0.26NS	0.731	NS
Control Group	60		4.067	1.334			

Source: Field work 2011

Ns - Not significant at $P > 0.05$

The result in Table 3: Indicates that there is no significant difference at 0.05 level of significance between the pre-test Mean scores of the experimental and control groups ($t = 0.26$, $df = 118$, $p > 0.05$). this Means that students in the experimental and control groups were at the same entry level with regard to academic ability before the topics in History were presented to them their mean scores were statistically the same.

H(O), there is no significant difference between the mean scores of students taught history with instructional television package and those taught with expository method.

To test this hypothesis is the posttest means scores of the experimental and control group were computed and compared using the t-test statistic. The result is shown in Table 3. Table 3. t-test comparison of the post-test means scores of the experimental and control groups.

Table 3

Variable	N	DF	X	SD	t-value clculated	P	Rmks
Exp. Group	60		12.617	2.256	13.83x	0006	Highly Sight
Cont. Group	60		7.717	1.563			

Source: Field Work 2011.

Significant at $P > 0.05$

The result (of the t-test analysis) in table 3 shows that there was significant difference between the post-test mean scores of the experimental control groups at 0.05 level of significance ($t=13.83$ $df = 118$, $p > 0.05$) I was therefore rejected. This means that there was a significant difference at 0.05 level of significance between the performances of students taught with instructional Television package and those taught with expository method students taught with instructional television performed better than those who were taught with expository method.

Hence, the instructional Television package enhance the students learning of history.

Performance of Male and Female Students in the Experimental Group on the Posttest

Hypothesis 2

H(O)₂ There is no significance between the mean achievement scores of male and female History students taught history with the instructional Television package.

To test this hypothesis, the posttest mean scores of male and female students in the experimental group were computed the analysis was carried out using the t-test statistic and the result shown in table 4. table 4 t-test comparison of the posttest means scores of male and female history students in the experimental group.

Table 4:

Variable	N	DF	X	SD	t-value calculated	P	Rmks
Male	30	58	12.733	2.434	0.34	0.389	NS
Female	30		12.533	2.129			

Source: Field work 2011.

Ns- Not Significant at $P > 0.05$.

From the result in table 4, it can be seen that, there was no significant difference between male and female history students in the experimental group at 0.05 level of significance $t = 0.34$, $df = 58$, $p > 0.05$). Null hypothesis 2 was therefore not rejected. The performance of the male and female history students in the experimental group were equal enhanced by the use of instructional Television package. Hence, the instructional television package was gender friendly.

Discussion of Result

From the result in table 4., there were no significant differences between the performance of male and female students that were taught History with the instructional Television package. The male and female students performed equally well. This result is contrary to the findings of Alabi (2004), Adamu (1999) who concluded that the role and performance of girls in electronic media and the Instructional Television package is not encouraging. Also, Gambari 1991 in Zubairu (2004) observed that, male students found Television instructional package to be more interesting than female. However, Shuaibu and Ahmed (1999) concluded that female students performed better in integrative processes than their male counter parts. The result also agrees with the findings of Abdullahi (1981) and fuller (1982) in Gambani (2004) and Sanda and Bott (1995) in Fogbemi (2004) who found that gender did not influence students' performance in Instructional Television Package generally.

Contributions of the Study to Knowledge

Instructional television package is an technological information processing device which can be used to present instructional events that are designed, developed and produced for individualized learning situation (Ema – 2006). Also Onosanya, (1996) Observed that the Television (TV) has been found to be the most suitable, reliable and versatile medium for individualizing instruction. It is able to deal on individual bases with a number of students simultaneously.

This research study has therefore:

- a. Exposed Secondary school teachers to the use of instructional Television package as a meaningful strategy for classroom instruction.
- b. Shown that instructional Television package is an effective strategy for classroom instruction which could improve performance of students. This is in view of the fact that the research was only for a short period, if it was a longer period, the effect would have been pronounced.

Conclusion

Based on the finding of the study, the following major conclusion can be drawn. The use of instructional Television package produced significant improvement in the posttest performance achievement scores of students in history. There was substantial difference in the mean score of students who were taught using instructional Television package and those who were taught using expository strategies instruction. The difference was in favour of students who were taught with the instrument. This can be deduced that the use of this instrument produced a remarkable improvement on students' posttest performance in history than the chalk and talk instructional methods. Instructional television package can ensure better performance in history among senior secondary school students.

Recommendation

Based on the major findings of this study, the following recommendations are proffered.

1. Teachers of history and other secondary school teachers should cultivate the habit of using instructional television package to enhance the teaching and facilitate students' acquisition of knowledge. Educational Television would allow students the optimistic use of their senses for learning purpose. Instructional materials and media as we all know will enhance the students' emotional feeling that which can arouse their interest in the class through appropriate visual i.e (Motion and non motion) and accompanying narration through their use, students can be motivated better to participate actively in the classroom.
2. Stakeholders in education should make it as a matter of commitment to provide schools with needed electronic media and instructional material that would assist them in disseminating of instruction. The stakeholders should also provide fund to produce purchase these electronic media accompanying soft wares to motivate secondary school teachers, interest in the use of educational media.
3. National Educational Technology centre should liaise with various state Resource centres, educational technology centre or department in tertiary institution and Federal and state television stations to produce relevant educational materials on various subjects taught in the Nigerian Secondary schools.

Suggestion for Further Studies

Based on the experience gathered, this research suggests the increasing the number of schools to include heterogeneous sample i.e schools in rural and urban areas, the study can be replicated in several states to indicate the influence of socio political environment of schools. Other topics should be investigated history using educational media.

References

- Adamu, Z. (2002). Effect of the use of transparencies on the teaching and learning of history in Senior Secondary Schools in Lapai Local Government Area of Niger State. Unpublished (M.Tech) thesis, Science Education Department, Federal University of Technology, Minna.
- Adegbija, O. and Onasayan, B. (2007). Foundation of Teaching Method. 10WG: Khan C. Brown Company publishers.
- Adelakin, A.S. (2003). Sex difference in an academic performance. Nigerian Journal of Gender and Development, 1(82), 18.
- Adeniran, A.A. New Trend in access to Information Communication Technology: Its implication to the continent of Africa. STAN Proceedings and Inaugural Conference of CASTIVE Africa, 89-94.

- Alabi, T.O. (2001). Effect of pictorial aids on primary school pupils performance in social studies. Unpublished (M.Tech.) thesis, Science Education Department, Federal University of Technology, Minna.
- Dike, H.I. (1999). A book of Educational Technology. Port Harcourt Cap 11.C. Publishers.
- Ezeudu, T.O. (2000). The use of local materials in the teaching of chemistry. 41st Annual Conference proceedings of STAN, 163-165.
- Gana, E.S. (2006). The use of instructional television in the learning of some geographical concepts (Map Reading) in senior secondary schools in Minna. Unpublished (M.Tech) thesis, Science Education Department, Federal University of Technology, Minna.
- Hoban, C.F. and Zissman (1937). Visualizing the Curriculum. New York Dryden.
- Joneses, R. (1996). Introduction to Educational Technology. Lagos. Johns Lad Publishers.
- Kutigi, A.U. (2006). Relative effectiveness of audio tape and computer instructional package on the teaching of oral English at Senior Secondary schools in Minna. Unpublished (M.Tech) thesis, Science Education Department, Federal University of Technology, Minna.
- Otegbayo, C.O. (2005). Effect of audio tape and film package on the teaching and learning of phonetics in some secondary schools in Niger State. Unpublished (M.Tech) thesis, Science Education Department, Federal University of Technology, Minna.