

Effect of motion-pictures on academic performance and retention of history senior secondary school students in Katsina, Katsina State-Nigeria

Zaharaddeen Suleiman ^{1*}, 2Tahir A. Abubakar ² & Torpev T.F ³

^{1,2} Department of Arts and Social Science Education, College of Education, Al-Qalam University Katsina.

²Department of Educational Foundations, Faculty of Education, Federal University Dutsinma.

Emails: ^{1*} Zaharaddeensuleiman88@gmail.com, ² abduldbt1@gmail.com, ³ torpev@fudutsinma.edu.ng

Abstract

The study investigated the Effect of Motion-pictures on Academic Performance and Retention Ability of History Senior Secondary Schools Students in Katsina Metropolis, Katsina State-Nigeria. Four corresponding research objectives, questions and hypotheses were formulated to guide the study. The research used pre-test and post-test quasi experimental research design. The population comprises a total of 3272 SSII students of History from 9 schools offering the subject. The sample of the study comprised of 220 including male and female SSII students from 2 intact classes of 110 and 100 in 2 out of 9 schools of Katsina metropolis purposely selected. A validated multiple choice item instrument namely: History Performance Test (HPT) with a reliability coefficient of 0.81 guided the data collection. All the hypotheses were tested using independent t-test at 0.05 level of significance with the help of SPSS Version 23.1. The findings indicated those group of students taught using motion-pictures have positively performed and retained better than those taught using lecture method. This study concluded that motion-pictures can be used at senior secondary schools as instructional material to achieve efficient and successful learning sessions. The study therefore concluded that the use of motion-pictures enhanced students' academic performance and retention ability in History subject better than lecture method. The study further recommended that the Katsina State Government should consider for training and retraining of more teachers of the History subject on the use of motion-pictures instructional material through periodic organized conferences, lectures, seminars and workshops.

Keywords: Motion-pictures, Lecture method, Academic Performance, Retention and Gender

Introduction

History is one of the Art subjects taught in secondary school level and other tertiary institutions of learning in Nigeria. The subject is designed to exposed learners to the historical happenings of their immediate environment and other parts of the world. This is to enable them have good interpretation through critical thinking in order to arrive at positive solution to challenges and plan for better future attainment. It is imperative to note that the important of History subject to human life, particularly students cannot be over counted as it enables learners to know their origin/ancestors, national and international heroes to emulate from their good actions, making

comparative analysis of events to arrive on facts before making decisions, promotion of social norms and values, respect others culture, tolerance, trustworthiness, patience, discipline and integrity etc (Okam, 2014). Ashafa (2013) viewed history as an ongoing system of interaction between historians and facts. It also described as an unending dialogue between the present and past.

Iyunade (2021) asserts that an open pedagogical delivery towards attaining predetermined learning objectives most integrate the use of some relevant and appropriate instructional materials. Such learning can be more effective and meaningful

when appropriate instructional materials are carefully selected and used during the lesson delivery. On the other hand, when teaching office management, instructional materials allow the teacher to demonstrate the skills concretely. He also added that instructional materials pique students' curiosity and keep them interested in learning more about the goals for which they are designed.

Okebukola (2010) has on this point emphasized that poor use of instructional materials resulted into a compounded academic failure of students especially in their performance on History subject during senior school examinations. Mayer (2009) added that motion-picture as a simulated picture portraying the movement of visuals (or simulated) objects and or an intentional movement of objects which cannot move independently. Sanchez (2010) held that the educational motion-picture as picture produced purposely foster learning development. The widespread acceptance and practice of using motion pictures was elegantly aimed at helping students understand and remember information. Isah (2019) endorsed that students' academic performance at senior secondary school is enhanced through the teachers' utilization of appropriate instructional materials for particular a classroom situation which help towards the accomplishment of the specific goals of a lesson. Qbeka (2010) defines academic performance as an instrument used to determine present students' scholastic standing within short a period of term.

It's based on the degree of intellectual stimulation that the child could receive and retain rightful knowledge and skills from learning situation. Aggarwal (2018) sees the term retention as the previous experience in subconscious mind of individual in the form of mental development. Bichi (2012) endorsed that retention as the learner's ability to store and recall what he/she went through at schools, experienced or learned for future use. Obafemi (2015) opined that gender issues have become an important subject of discussion at any

educational discussions which empirical studies proven that high rate of literacy exist both in the midst of boys and girls learners. Although, it was currently observed that, girls scored high marks than boys mostly in learners' achievements test.

Statement of the Problem

Research conducted by authorities in the field of teaching History have shown that students continued to perform poorly in senior secondary school examination in Nigeria as revealed by WAEC Chief Examiner's Report of 2022. For instance, the analysis of WAEC result in History subject for 2020 revealed poor performance though a few improvements were seen but the problem is still not solved. The detail analysis of SSS History students' academic performance in Nigeria of 2020 (WAEC) result indicated persistence failure in the subject. For instance, in 2022, 130,521 candidates sat WAEC but only 28,322 scored credits and above representing 21.7% the performance drastically decreased. This might be due to students' poor motivation towards the subject as a result of unavailability of instructional materials, teacher-centred approach, inadequate qualified history teachers, over loaded curriculum and poor classroom management etc. Isola (2011) affirmed that, most of the teachers of History in Nigerian secondary schools neglected to use instructional materials during lesson delivery. The study under the present investigation was aimed at examining the core effect at which slide-pictures instructional materials advance learners' academic achievements in History at secondary schools within Katsina metropolis.

Research Objectives

For the study to have a focus, four research objectives were formulated:

- 1) To examine the effect of slide pictures and lecture method on History students' academic performance in Katsina metropolis, Katsina State-Nigeria.
- 2) To ascertain gender difference in academic performance of History senior secondary

school students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria.

- 3) To identify the effect of slide pictures and lecture method on History students' retention ability in Katsina metropolis, Katsina State-Nigeria.
- 4) 4. To ascertain gender difference in retention ability of History senior secondary school students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria.

Research Questions

The study was designed to answer the following:

- 1) What is the effect of slide pictures and lecture method on History students' academic performance in Katsina metropolis, Katsina State-Nigeria?
- 2) How does gender difference affect academic performance of History students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria?
- 3) What is the effect of slide pictures and lecture method on History students' retention ability in Katsina metropolis, Katsina State-Nigeria?
- 4) What is the gender difference in retention ability of History students taught using motion-picture in Katsina metropolis, Katsina State-Nigeria?

Hypotheses

The following null hypotheses were formulated to guide the study at $H_{0.05}$ level of significance, include:

O1. There is no significant difference in the academic performance between students taught same historical concepts using slide pictures and those taught using lecture method in Katsina metropolis, Katsina State-Nigeria.

HO2. There is no significant gender difference in academic performance of History students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria.

HO3. There is no significant difference in the retention ability between students taught using same Historical concepts using slide pictures and those taught using lecture method in Katsina metropolis, Katsina State-Nigeria.

HO4. There is no significant gender difference in retention ability of History students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria.

Methodology

The study used "quasi-experimental design pre-test, post-test and post-posttest, non-randomized study. The total population comprised of all SSII Government senior secondary school students of History in Katsina metropolis, Katsina which has a total of 3272 students. The SSII population of 3272 where (male= 1795 and female is 1477). The technique used was purposive to arrive the target population. The research selected sample size using a multi-stage sampling ranging from the total population of students of History in Katsina metropolis flow down to 9 schools and arrived at two selected sample schools using intact classes. In assigning the 2 schools into experimental conditions and control, simple random sampling technique have been employed in selection of experimental and control group, these were: experimental (Katsina College Katsina) and control group (Government Day Secondary School Kofar Kaura). First week, a pre-test (O1) was conducted to equate the 2 groups prior to administration of treatment. The experimental group EG was taught using motion- pictures as instructional material while control group (CG) was taught using lecture method (X0) for six weeks with the aids of projector (slide pictures) showing Sokoto Emirate, towns and villages and other Empires like Old Oyo and Borno Empire that were significantly affected by the Jihad. After the treatment, post-test was conducted to examine if there is changed in students' performance and post-posttest at eight's week to see whether the knowledge acquired is retain or not. To avoid interference, the study used schools that were far away from one another.

The instrument used for this study was History Performance Test (HPT). It comprised two sections: Section “A” containing Students Bio Data comprising of gender. Section “B” was the research instrument. The items of the instrument consisted of (50) fifty questions multiple choice with four options: A, B, C and D and only one option is correct answer attract (2) two marks making a total of (100) hundred marks. The items containing in the History Performance Test (HPT) were based on the selected topic as “History of Sokoto Caliphate” which comprised of sub topics: the Place of Islam in Hausaland at the beginning of 19th Century, Islamic Jihad and Establishment of Sokoto Caliphate, Causes and Impact of the Jihad on religious, political, economic and social of inside and outside the Caliphate. The instrument was scrutinized by 2 lecturers with Ph.D. qualification from the Department of Educational Foundations,

Federal University Dutsin-ma for both face and content validities. A test-retest method was used within an interval of two weeks and the result of the tests were correlated to obtain the reliability level of the instrument. The study determine the R-value using Pearson Product Moment Correlation (PPMC) as statistical tool to correlate the two results in determines the reliability co-efficient. The result obtained showed that r-value using cronbach alpha was 0.81 indicating strong positive Correlation.

Results

HO₁: There is no significant difference in the academic performance between students taught same historical concepts using slide pictures and those taught using lecture method in Katsina metropolis, Katsina State-Nigeria.

Table 1: Independent t-test Analysis of Academic Performance of History students taught using Slide Pictures and Lecture Method

Groups	N	Mean	SD	t-cal	df	P-value	Decision
Slide-pictures	110	75.62	6.210	48.600	208	0.000	Not Sig.
Lecture Method	100	41.88	3.251				

Table 1 present the analysis of t-test to ascertain the significant difference in academic performance score of students of History taught using slide pictures and lecture method. The result shown that the t-calculated was 48.6 observed at degree of freedom of 208 with p-value 0.000. The p-value shown 0.000 which is less than the alpha value 0.005. The hypothesis stated there is no significant

difference in the academic performance between students taught same historical concepts using slide pictures and those taught using lecture method is rejected. The difference is in favour of students taught using slide pictures 75.62>41.88.

HO₂: There is no significant gender differences in academic performance of History students taught using slide-pictures.

Table 2: T-test for Independent Analysis Showing Significant Gender Differences in Academic Performance Score of History Students Taught Using Slide-Pictures

Gender	N	Mean	df	P-value	Decision
Male	110	59.40	108	0.397	Not Sig.
Female	100	54.52			

Table 2 presents the t-test for independent analysis of gender differences in academic performance score of History students taught using slide pictures. The finding indicated that p-value is 0.397 which is greater than the alpha 0.05 value, the hypothesis which stated that there was no significant gender differences in academic performance of History students taught using slide pictures instructional material is retained. Thus,

there is no significant gender differences in academic performance of students of History taught using slide pictures. The difference found is in favour of male students but not significance $59.40 > 54.52$.

HO3. There is no significant difference in retention ability of History students taught using slide pictures and lecture method in Katsina metropolis, Katsina State-Nigeria.

Table 3: T-test Analysis of Retention Ability Score of History Senior Secondary School Students taught using slide pictures and lecture method

Variables	N	Mean	SD	t-cal	df	P-value	Decision
Slide pictures	110	63.46	6.917	41.866	208	0.000	Not Sig.
Lecture Method	100	40.77	3.931				

Table 3 presents t-test for independent analysis of significant difference in retention ability score of students of History taught using slide pictures and lecture method. The result indicated that the t-calculated was 41.866 observed at degree of freedom of 208 with p-value 0.000. The p-value observed 0.000 is less than the alpha 0.005 value. The hypothesis which stated that there is no significant difference in retention ability of History

senior secondary school students taught using slide pictures and lecture method was rejected. The difference is in favor of students taught using slide pictures $73.71 > 41.86$.

HO4. There is no significant gender differences in retention ability of History students taught using slide pictures in Katsina metropolis, Katsina State-Nigeria.

Table 4: Independent t-test Analysis Showing Significant Gender Difference in Retention Ability of History Students Using Slide-Pictures

Gender	N	Mean	df	P-Value	Decision
Male	110	60.18	208	0.912	Not Sig.
Female	100	60.06			

Table 4 presents the result of independent t-test analysis of gender differences of retention ability of students using slide pictures. The finding shown that p-value 0.912 is greater than 0.005 alpha value, the hypothesis stated that there was no significant gender difference in retention ability of students taught same historical concepts using slide pictures is retained. Thus, there is no significant gender difference in students' retention ability taught

using slide-pictures. The difference found is in favour of male students but not significance $60.18 > 60.06$.

Discussion of Findings

Findings from hypothesis one indicated that slide pictures instructional material enhance the academic performance of senior secondary school students of History in Katsina, Katsina State-

Nigeria. The results of the study were harmoniously aligned with previous studies such as Miri and Yehudit (2011) which significantly indicated that motion-pictures promote various innovative skills among students. The slide-picture instructional material can equally enhance students' curiosity, acquisition of scientific language and assist in fostering their critical thinking skills.

The findings of hypothesis two indicated no gender difference in students' academic performance of History using slide pictures. However, male outperformed female students but the difference is not significant. The present findings is supported by the findings of Lea (2021) conducted a study on motion-picture in learning Physics concept. It was revealed that 40 or 50% male students respondent and 40 or 50 % female. The results indicated relationship between academic performance of male and female students taught using motion-pictures did not differ.

The findings of hypothesis two shown no gender difference in male and female academic performance of History using slide pictures. This implies that gender has no significant effect on academic performance of History students taught using motion-pictures. The result is supported by the findings of Ndem (2011) found that there was no difference in academic performance of male and female students taught using motion-pictures instructional material.

The findings of hypothesis three revealed that there is difference in retention ability of students taught same historical concepts using slide pictures and lecture method in favour of motion-pictures group. Students of History taught using slide-pictures performed better in retention ability than those using traditional method. The findings supported the findings of Esu, Enukoha and Umoren (2004) investigated on the impact of motion-pictures on performance, retention and interest of Geography Students taught Weather concepts in Katsina State, Nigeria. Those taught using slide-pictures performed better than those taught using lecture method. The result shown

difference in retention ability. Students taught using slide-pictures favour.

Findings of hypothesis four revealed there is no gender difference in retention ability of History students. Male outperformed female students taught using motion-pictures in their retention ability but the difference not significant. Gender had no effect in retention ability of students. This finding agreed the findings of Richmond (2010) investigated on the impact of motion picture on students' achievement in Chemistry at Caps Coast township of Coast Metropolis, Ghana. The study was a non-randomized pretest-posttest group design. The results showed that students taught using motion-pictures performed better than those taught using lecture method. It further indicated that the mean achievement of both male and female showed no difference between the two groups.

Conclusion

The study implied that motion-pictures instructional material is effective in achieving learning objectives in History subject at secondary school ranging from known to unknown, simple to complex and familiar to unfamiliar in a more appropriate and organized manner.

The study also established that, students' academic performance and retention ability is greatly enhanced using slide-pictures instructional material. The study concludes that teaching History concept using motion-pictures instructional material facilitates students recall performance in difficult areas of History better than traditional method. This will remedy the reported difficulties/failures in WAEC and NECO faced by students of History subject at senior secondary schools.

Recommendations

The study is hereby recommending the following:

- 1) The Katsina State Government should emphasize to train and retrain History teachers about the effectiveness of slide pictures in learning historical concepts

through periodic conferences, lectures, seminars and workshop.

- 2) The History of Sokoto Caliphate is one of the topics frequently appeared in WAEC questions, this study revealed that students of History academically performed better and retained well when taught using slide pictures, Katsina State secondary school teachers should endeavor to employ instructional material in learning historical concepts.
- 3) Examination bodies like West African Examination Council (WAEC) should separately emphasize the effectiveness of slide pictures instructional material in teaching and learning of History subject.

Suggestion for Further Studies

The research work suggested that:

Further research can be conducted in other schools to cover more senior secondary schools meanwhile similar study can be conducted in senior secondary schools of other States in Nigeria or Countries such as Kano, Lagos and Rivers, South Africa, Germany or United States of America etc. It can be conducted in other concepts of History, like: The Abolition of Trans-Atlantic Slave Trade on Benin Economy, Factors that led to the Collapse of Oyo Empire in 19th Century etc. It is also suggested that further researches should be carry out to other subject areas like Economics, Physics and Islamic Studies. Example, Effect of Motion-pictures on Academic Achievement of Chemistry Students in Secondary Schools of Bauchi State, Nigeria.

Limitations of the Study

The study has some limitations which include:

- 1) The study limits its self in only two (2) secondary schools of Katsina metropolis which shown restriction of the research work.
- 2) The study was conducted to a specific course in History (Sokoto Caliphate) and students of History alone, and this can be conducted to other areas of History and

disciplines, it is possible that the findings will appear otherwise.

References

- Aggarwal, J. (2018). Essentials of Educational Psychology 2nd Edition. New Delhi: Vikas Publishing House.
- Ashafa, A. (2013). Relevance of Academic History in 20th Century *Nigeria*, A Paper Presented during the Orientation Organized by History Department on 14th February, 2010, at Faculty of Humanities Lecture Theatre, Umar Musa Yar'adua University, Katsina State.
- Bichi, S. (2012). Effect of Problem-solving Strategy and Enriched Curriculum on Students Achievement and Retention in Evolution Concepts among Secondary School Students. An Unpublished Thesis Ph.D. A.B.U. Zaria.
- Esu, A., Erukoha, O., & Umoren, G. (2014). Curriculum Development in Nigeria for Colleges and Universities. Owerri: Whyte and Whyte Publishers.
- Isah, I. (2019). Evaluation of the Effects of Peer-Tutoring and Concept Mapping Techniques on Performance of Senior Secondary School Chemistry Students in Katsina State Nigeria. A PhD. Thesis, Department of Educational Foundations and Curriculum, Faculty of Education ABU Zaria, Kaduna State-Nigeria.
- Isola, A. (2011). Predictability of Continuous Assessment Score on Academic Performance of Students in Junior School Certificate Examination in Ilorin: an Indicator of Purposive Education in Nigeria. Counselling Association of Nigeria 22 (1)
- Iyunade, O. (2021). Availability and Utilization of Instructional Materials in Selected Setting in Ogun State, Nigeria. *International Journal of Humanities and Social Science* 4 (4), 268-272, 2021.
- Lea, D. (2021). Computer Simulation on Teaching and Learning of Selected Topics in Physics. *European Journal of Interactive Multimedia and Education* 2021, 2 (2), 02108 ISSN 2732-4362. (Online)<https://www.ejimed.com>

- Mayer, S. (2009). The Influence of Parental Income on Children's outcomes. Wellington, New Zealand: Knowledge Management Group, Ministry of Social Development.
- Miri, B. & Yehudit, J. (2011). Science Education in Primary Schools. *Journal of Science Education and Technology*, 20(3) 608 – 620.
- Ndem, N. (2011). Effects of Improvised Materials on Students Achievement and Retention of the Concept of Radioactivity, *Journal African Research Review* 5 (1).
- Obafemi, D. (2015). Bridging Gender in the Physics Classroom, the Instructional Method Perspectives. *Journal of Education and Practice*, Vol. 6(20) 2015.
- Obeka, S. (2010). *Current Trend in Geographical and Environmental Education*. Ahmadu Bello University Press, Ltd.
- Okam, C. (2014). Social Studies Education Examined as a Curriculum Instrument for National Integration and Sustainable Development in 21st Century Nigeria, *the Satellite*, and 1(1) 36-49.
- Okebukola, P. (2010). Five Years of Higher Education in Nigeria: Trends in Quality Assurance. <http://www.unilorin.edu.ng> (Accessed 24, January 2021).
- Richmond, Q. (2010). Impact of Audio-Visual Aids on Senior High School Students' Achievement in Physics *Eurasian Journal of Physics and Chemistry Education*, 4(1): 4654, 2012
- Sanchez, L. (2010). *The Importance of Animations as a Visual Method in Learning Chemistry*. Estonia: Tallinn University.
- WAEC Result. (2022). WAEC Result Statistics for National Bureau of Statistics.