

EFFECTS OF BLENDED TEACHING STRATEGY ON SENIOR SECONDARY STUDENTS' ACHIEVEMENT IN HISTORY IN JOS SOUTH LOCAL GOVERNMENT AREA, PLATEAU STATE, NIGERIA

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ABSTRACT

Senior secondary school students have been performing poorly in history year after year. One of the factors responsible for this, is poor teaching strategies. This study examined the effects of blended teaching strategy on senior secondary students' achievement in history in Jos South Local Government Area, Plateau State, Nigeria. The specific objective of this study, therefore, was to: determine the pre-test and post-test achievement mean scores of students in history in the experimental and control groups. The study adopted the quasi-experimental non-equivalent pre-test, post-test control group research design. One research question was answered and one hypothesis was tested at 0.05 level of significance. The population of the study consisted of 277 (122 males and 155 females) senior secondary II history students from two intact classes of two public co-educational senior secondary schools in Jos South LGA, Plateau State, Nigeria. One of the intact classes served as the experimental group, and the other as the control group. A sample size of 33 SS II history students were used as participants for the study. These consisted of 12 male and 21 female students. The experimental group had a total of 18 students (8 males and 10 females), while the control group had 15 students (4 males and 11 females) drawn through purposive and simple random sampling techniques. One instrument, History Achievement Test (HAT) was used for the purpose of data collection. HAT was validated by three experts and its reliability of internal consistency was established using Kuder-Richardson formula 20 (K-R-20) method which produced a reliability coefficient index of 0.883 obtained. The research question was answered using descriptive statistics of mean and standard deviation while the hypotheses was tested at 0.05 level of significance using Analysis of Covariance. (ANCOVA). The statistical analysis was done using the Statistical Package for Service Solutions (SPSS) version 26. The findings of the study revealed that the experimental group taught using blended teaching strategy had a mean score of 54.89 with a standard deviation of 7.52 in the pre-test and a mean score of 64.89 with a standard deviation of 7.00 in the post test, higher than the pre-test score with a mean gain of 10.00. It means that there was an improvement in the achievement of students after treatment. The control group had a mean score of 44.40 with a standard deviation of 5.14 in the pre-test and a mean score of 51.07 and a standard deviation of 6.76 in the post test, with a mean gain of 6.67. The findings revealed that students in the experimental group had a higher achievement mean score (64.89) after treatment using blended teaching strategy as against those in the control group (51.07) with a post-test mean difference of 13.82 and a mean gain difference of 3.33. This indicated that blended teaching strategies did increased students' achievement in history. It was recommended among others that blended teaching strategy should be adopted by history teachers in order to increase the engagement and achievement of students in history as a secondary school subject. In addition, government at all levels and parents should provide Information and Communication Technology gadgets and internet service connectivity in schools and at homes respectively to facilitate the integration of blended teaching and learning strategy in history inside and outside the classroom.

Key words: Achievement, Blended teaching, flipped classroom model, History.

INTRODUCTION

History is one of the subjects taught in senior secondary schools in Nigeria and Plateau State in particular. Its teaching in the Nigerian school system is not novel as it was one of those subjects

which was taught and held in high esteem and regards in the Nigerian educational system prior to independence and the first two decades of Nigeria's independence (Gotom & Sanda, 2018). History is the conscience of society, a resource for socialization of citizenship, patriotism, and national identity. The study of history is important to students for a number of reasons. Some of these reasons are: history inculcates the spirit of patriotism, encourages tolerance, nurtures the spirit of citizenship and trains the mind. Also, history quickens students' imagination, develops critical thinking and enables students to have a sense of national consciousness and identity.

Despite the importance and lofty objectives of history teaching and learning in the Nigerian school system, and its pride of place among other school subjects in the first two decades of Nigeria's independence, the achievement of students in the subject in both internal and external examinations is on a downward slide. This poor trajectory still persists, even with the reintroduction of History as a stand-alone subject into the Nigerian Basic Education Curriculum in 2018 by former President Muhammadu Buhari's led administration. As a result of the re-introduction of history, one would have expected that there should be a corresponding increase in the number of students' enrolment and achievement in the subject, since the knowledge of history is now being taught right from the primary up to the senior secondary level. The reverse seems to be the case as can be seen in the enrolment and academic achievement of History students in West African Senior School Certificate Examination (WASSCE) results.

The probable reasons for such noticeable dwindling poor achievement as alluded to by WAEC Chief Examiners' Report (2019) are that most candidates failed to express their points in a logical manner, encountered difficulty in interpreting questions and lacked effective communication ability in presenting historical ideas in a comprehensive and convincing way. This is not unconnected to teachers' use of laborious note taking and lecture strategy of teaching which does not encourage students to make insightful and meaningful summary of topics being taught. The end result is that over 97% failure was recorded within the study area in 2019. This situation is quite disturbing and alarming.

Consequently, the need to explore blended teaching strategy as one of the most potent strategies that could be used to bridge the barriers of face-to-face (FTF) learning by combining FTF learning with technology aided virtual and e-learning platforms through flipped classroom model of instruction. Thus, strategies of teaching are important and might account for either low or high achievements in a school subject. When History teachers deploy inappropriate teaching strategies in the course of instruction, students are likely going to display apathy and low achievement in the subject. Traditional teaching strategies commonly used by History teachers in the study area include lecture and story-telling teaching strategies. These traditional teaching strategies which are often over – utilized in the teaching of History heavily rely on rote memorization of facts, dates and names rather than promoting a deeper understanding and knowledge retention in students. This strategy can be tedious for students and hinder their capacity for better achievement in history examinations. These teaching strategies are some of the oldest strategies which are becoming unpopular and unrewarding, as they are perceived to be incapable of motivating, arousing and sustaining the interest of learners. The use of blended teaching strategy in this study is an effective strategy to improving students' achievement in history, compared to the lecture-based teaching strategy.

Blended teaching strategies refer to a teaching and learning strategy that integrates and combines traditional classroom methods with digital tools. It is the process of combining in-class instruction with independent study using electronic resources. It combines traditional classroom instruction with online resources (Utami, 2018). It can be described as learning strategies that combines both face-to-face (FTF) teaching and a computer media (offline), and computer online (internet and mobile learning platforms). The materials delivered through the media include graphs, texts, animations, simulations, audio, and video for students to watch, listen and learn from (Effendi & Hendriyani, 2020).

Blended teaching provides flexibility to teachers and learners, as it can be applied to heterogeneous students through the internet platforms and or videos handed over to students even

when school closures take place as a result of outbreak of pandemics. This could help in covering the seemingly broad senior secondary school History curriculum and has the potentials of improving students' outcomes and the acquisition of previously unattainable competencies. This strategy has encouraging effects on students' engagement and academic achievement as against the lecture strategy of teaching which is teacher centred and makes students to be passive listeners in the teaching and learning process. This research adopted the flipped classroom model that gives students out of class activity at home through flash drives, classroom time becomes a period for interaction, raising and reconciling concerns and grey areas concerning history video content watched at home. This will aid history students to learn independently at their convenience, pace and interact while learning materials severally in order to improve students' achievement.

Basically, academic achievement is a term in education parlance that is used to measure the effectiveness of a learning process or situation. It pertains to the extent to which students, teachers, or institutions has progressed in attaining its educational goals in instructional settings in a school. It is the ability to study and remember facts and being able to communicate one's knowledge verbally or written on paper. This is commonly measured by examinations or continuous assessment. Several factors that may affect students' achievement in a school subject may include teachers' experience and qualification, student's interest, instructional materials, family background, interest, gender and teaching strategy. Various studies have attempted to explain the academic success or failure of students from these multiple angles. Thus, the present study seeks to ascertain whether blended teaching strategy is capable of improving students' achievement in history within the study area.

Statement of the Problem

The teaching and learning of history in senior secondary schools not only instills values in students, but also equips students with knowledge, attitudes and skills needed for the political, economic and social development of a country. This requires teachers to use more active, engaging and interactive strategies that will improve the achievement of students in history. However, despite the importance of history as a foundational ingredient and tool for national development, its teaching and learning in Nigerian schools and the study area in particular appears not to be interactively done, thereby creating boredom in history classrooms. This leads to poor achievement in both teacher-made and standardised test. The teaching and learning of history in senior secondary schools in the study area is predominantly done using teachers' centred strategies like storytelling, lecture and textbooks which does not encourage active learning and is less effective for students, thereby resulting to students' poor achievement in history.

Statistics of West African Secondary School Certificate Examination (WASSCE) 2019 History results in the study area indicates that out of the 36 candidates (students) who sat for History, only 1 student representing 3% scored between grades A1-C6 and 35 students representing 97% got between grades D7-F9. This shows that there was mass failure in History as 97% of the students including those with grades Ds or Es pass cannot secure admission into the University or any tertiary institution of learning to read and study History or its related disciplines. The unfortunate trend continued in 2021 as 31 students registered for WASSCE out of which 3 candidates representing 10% got between A1-C6 and 28 students representing 90% got between D7- F9. In 2022, out of the 36 students who registered and sat for History WASSCE, only 3 of them representing 8% passed distinction to credit grades. Thirty-three of the remaining students representing 92% got pass to fail. This is also well below the credit pass requirements for one to gain admission into the University or any tertiary institution of learning. All these depicts poor achievement in history, which is not encouraging.

Several reasons have been attributed for such an abysmal condition which includes inappropriate method of teaching used by history teachers, inability of teachers and students to cover the supposedly bulky History curriculum, inadequate teachers to teach the subject, students' lack of interest towards the subject, inadequate teaching materials like inadequate textbooks among

others. These are all encumbrances to effective teaching and learning of History in senior secondary schools within the study area. This has been a matter of concern to stakeholders in the education sector ranging from students, teachers, parents, to school owners, examination bodies, policy makers and the government alike.

Attempts have been made in the past to improve the academic achievements of students in history. For instance, the government reintroduced history as a standalone subject, it has been sponsoring history teachers for in-service training, further studies, organising workshops and seminars within the state to equip and train history teachers on better methods of teaching history in secondary schools. All these efforts have not yielded the desired results of turning around the poor fortunes of the subject in terms of better achievement.

The implications of not over turning this ugly tide is that only few students would be admitted into higher institutions to study history and history related courses. A large chunk of Nigerian citizens who are youths of school age would be deprived of the invaluable lessons of history needed for national consciousness, tolerance, identity, cohesion, integration and development. Hence, the need to explore blended teaching strategy as a potent strategy that could be used to bridge the barriers of face-to-face (FTF) learning and ineffective strategies by combining FTF learning with technology aided virtual and e-learning platforms through flipped classroom model of instruction.

This will form the basis for improving the achievement of students in history as the researcher is not aware of any current attempt aimed at improving student's achievement in history in the study area through the use of blended teaching strategy. Therefore, to bridge such gap, the broad question answered in this study would be; what is the effect of blended teaching strategy on senior secondary school students' achievement in history in Jos South LGA, Plateau State, Nigeria?

Aim and Objective of the Study

The aim of this study was to determine the effects of blended teaching strategy on senior secondary students' achievement in history in Jos South LGA, Plateau State, Nigeria. The specific objective of the study was to:

1. determine the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups.

Research Question

The following research question guided the study:

1. What are the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups?

Hypothesis

The following hypothesis was formulated and tested at 0.05 level of significance:

1. There is no significant difference between the mean post-test history achievement scores of SS II students in the experimental and control groups.

Method and Procedure

The quasi-experimental pre-test–post-test non–equivalent control group research design was adopted to conduct the study. This is a research design which is used in a situation where students are sampled in their natural setting and does not allow for randomization of participants (Nworgu, 2015; Lauren, 2023). The justification for using intact class was because the researchers anticipated a situation where sampled schools might not allow for disruption of classes, more so that the researchers were not in a position to change the composition of normal classrooms setting in the sampled schools during the period of the research. Thus, intact classes were used for both experimental and control groups to avoid disrupting school activities.

The population for the study were all SS II history students in co-educational public senior secondary schools in Jos South LGA, Plateau State, Nigeria numbering 277 students, made up of

122 males and 155 females. The choice of co-educational public senior secondary schools was informed by their uniform administrative style and policy. The justification for selecting senior secondary II students was based on the fact that they are not in an examination class and have made up their minds to choose history as a subject. Also, the topics to be taught are in SS II curriculum, hence the need for the choice of SS II students. Two intact classes of Senior Secondary Two (SS II) History Students from two co-educational public secondary schools in the study area were used as sample for the study. The two sampled schools were selected based on their homogeneity and similar characteristics in terms of ownership, school, teacher qualification, academic records and learning environment. One of the intact classes served as the experimental group, while the other was used as the control group. Thus, a sample size of 33 SS II history students were used as participants for the study. These consisted of 12 male and 21 female students. The experimental group had a total of 18 students (8 males and 10 females), while the control group had 15 students (4 males and 11 females). Two sampling techniques were used in the study.

Purposive sampling technique was employed to identify and target only schools that offer history as a school subject through a baseline survey which indicated that nine out of 20 public senior secondary schools offer history in Jos South LGA, Plateau State, Nigeria. This is because using a different sampling technique other than purposive sampling in getting the schools will be difficult, as not all schools have students who offer history as a subject. Purposive sampling technique was used to avoid picking schools which in the long run cannot serve the purpose for the study. Simple random sampling technique was employed to randomly select two schools out of the nine purposively selected schools. The sample frame of all the nine schools was drawn and written on a piece of paper to randomly select two co-educational public senior secondary schools. The two selected schools were randomly designated as experimental and control groups using the hat and draw method. The participants for the study were not randomized.

History Achievement Test (HAT) was the sole instrument for data collection developed by the researchers to aid in generating data for the study. HAT was made up of two sections- sections A and B. Section A elicited for the bio-data of history students' participants like school, subject, student's identity card number/serial number, class and gender. Section B had 50, four – options lettered A-D multiple choice test items for students to choose the correct answer for each item. The students were instructed to respond to all the questions in 45 minutes.

To ensure face and content validity of the instrument, HAT was given to two experts in History and International Studies Education Unit in the Department of Arts Education and one expert from Research, Measurement and Evaluation Unit of the Department of Educational Foundations, all from the Faculty of Education, University of Jos, Nigeria. These experts were specifically requested to scrutinize the 50 multiple choice test items on the instrument in relation to the aim and objectives of the study, research questions and hypotheses set out for the study, to; ascertain the adequacy, relevance appropriateness and clarity of wordings of the items on (HAT) in terms of measuring what it was supposed to measure as it concerns instruction and language construction before administration. All necessary corrections and adjustments made by the three experts were used for the modification of items on the instrument to guide the production of the final draft of the instrument. Validated copies of the instrument were assembled for trial testing. To establish the co-efficient of internal consistency of HAT, a pilot study was carried out using SS II students offering history in two co-educational public senior secondary schools in the study area, which were not used during the main study. The reliability co-efficient of the internal consistency of HAT was determined through Kuder-Richardson formula 20 (K-R-20). The instrument was administered once and the scores obtained were computed using Statistical Package for Service Solution (SPSS) software version 26 and a reliability coefficient index of 0.883 was obtained and considered appropriate based on the postulation that a reliability co-efficient index of 0.70 and above is reliable (Corriveau & Bednar, 2017; Middleton, 2023).

Data collected were analysed using descriptive and inferential statistics. Descriptive statistics of mean and standard deviations was used to answer the research question raised for the study, while inferential statistics of Analysis of Covariance (ANCOVA) was used to test the null hypothesis formulated at 0.05 level of significance. Computations and analysis were done using Software Package for Service Solution (SPSS) version 26.

RESULTS

Answering the Research Question

Research Question One

What are the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups?

Table 1
Pre-test and Post-test Achievement Mean Scores of Students in History in the Experimental and Control Groups

Group	N	Pre-test		Post-test		Mean Gain	Mean Gain Difference	Post-test Mean Difference
		Mean	SD	Mean	SD			
Experimental	18	54.89	7.52	64.89	7.00	10.00	3.33	13.82
Control	15	44.40	5.14	51.07	6.76	6.67		

The result presented in Table 1 shows the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups. The experimental group have a mean score of 54.89 with a standard deviation of 7.52 in the pre-test and a mean score of 64.89 with a standard deviation of 7.00 in the post-test, higher than the pre-test mean score with a mean gain of 10.00. It means that there was an improvement in the achievement of students after treatment. The control group had a mean score of 44.40 with a standard deviation of 5.14 in the pre-test and a mean score of 51.07 and a standard deviation of 6.76 in the post test, with a mean gain of 6.67. The findings revealed that students in the experimental group had a higher achievement mean score (64.89) after treatment using blended teaching strategy as against those in the control group (51.07) with a post-test mean difference of 13.82 and a mean gain difference of 3.33. This indicates that blended teaching strategy did increased students' achievement in history.

Testing the Hypothesis

Hypothesis One

There is no significant difference between the mean post-test history achievement scores of SS II students in the experimental and control groups.

Table 2
ANCOVA Result on Post-test Mean Scores of Students in History in the Experimental and Control Groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Squared	Eta
Corrected Model	2225.963 ^a	2	1112.981	41.226	.000	.733	
Intercept	279.914	1	279.914	10.368	.003	.257	
Covariate	662.795	1	662.795	24.551	.000	.450	
Group	201.297	1	201.297	7.456	.010	.199	
Error	809.916	30	26.997				
Total	116380.000	33					

Corrected Total 3035.879 32

a. R Squared = .733 (Adjusted R Squared = .715)

Analysis of Covariance (ANCOVA) was conducted to determine if there is a significant difference between the pre-test and post-test achievement mean scores of students in history in the experimental and control groups. Table 1 shows that $F(30) = 7.46$, $P < 0.05$, since the P-value of .010 is less than .05, the null hypothesis was therefore rejected, it was concluded that blended teaching strategy can help improve the achievement of students in history. The result further shows an adjusted R squared value of .715, which means that 71.5% of the variation in the dependent variable which is students' achievement is explained by variation in treatment, while the remaining 28.5% was due to other factors not included in this study. This means that there was a significant difference between the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups.

Discussion of Findings

The findings of the study on the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups revealed that blended teaching strategy was found to be effective in improving the achievement of secondary school students in history in Jos South LGA, Plateau State, Nigeria as indicated in the result that there is significant difference between the post-test achievements of history students in the experimental and control groups. The findings revealed that students in the experimental group had a higher achievement mean score (64.89) after treatment using blended teaching strategy as against those in the control group (51.07) with a post-test mean difference of 13.82 and a mean gain difference of 3.33. This indicates that blended teaching strategy did increase students' achievement in history. The result of the study is consistent with the findings of Ibebuike, Eziaghighala, Emenyonu and Nwanorim (2022) which revealed that method is a significant factor that determines students' achievement in Basic Science. Thus, it was confirmed that students taught Basic Science using flipped classroom instructional method performed better than those using the lecture method. This is also corroborated by Olatunde-Aiyedun and Samuel (2022) finding that there is a significant difference in the mean pre-test and post-test achievement and retention capacity of students who received Science instruction through blended learning as their achievement and retention in Science greatly improved by blended learning model.

The results presented in table 2 shows that $F(30) = 7.46$, $P < 0.05$, since the P-value of .010 is less than .05, the null hypothesis was therefore rejected, it was concluded that blended teaching strategy can help improve the achievement of students in history. The result further shows an adjusted R squared value of .715, which means that 71.5% of the variation in the dependent variable which is students' achievement is explained by variation in treatment, while the remaining 28.5% was due to other factors not included in this study. This means that there was a significant difference between the pre-test and post-test achievement mean scores of SS II students in history in the experimental and control groups. This is also supported by several research findings like those of Obafemi (2021), Moses, Ibrahim, Idris and Ibrahim (2021) and Saadu (2023), which all buttressed the effectiveness of blended teaching strategy in improving students' academic achievement than the conventional teaching strategy that is commonly used in the study area.

CONCLUSION AND RECOMMENDATIONS

The study concluded that blended teaching strategy is one of the modern and effective teaching and learning strategies that can be used by history teachers at the senior secondary school level that has the potentials of improving students' achievement in the subject. It has the capacity of transforming traditional history classrooms into more engaging, interactive and interesting ones, where learners are trained to be independent learners who discover knowledge for themselves through repeated and unhindered access to historical contents in the form of videos, images,

audios or textual materials made available for students outside the class to be able to maximize their cognitive load when history content is presented in piecemeal and bits rather than as a chunk for better assimilation and achievement in history.

Based on the findings of the study, the following recommendations were made by the researchers:

1. The Federal and State Ministries of Education should as a matter of policy and practice train and supervise history teachers on how to use blended teaching strategy in order to increase students' engagement and achievement in history.
2. There is a dire need for a paradigm shift to history instruction delivery in senior secondary schools. History teachers need to swiftly adopt blended teaching strategy of instruction in their classrooms so as to improve the achievement of students in history
3. Government at all levels, and parents should provide Information and Communication Technology gadgets and internet service connectivity in schools and at homes respectively to facilitate the integration of blended teaching and learning strategy in history, inside and outside the classroom.
4. A law should be enacted by the National Assembly mandating Telecommunication Companies and Internet Service Providers to provide discounted and affordable internet data services for students, teachers and educational institutions as part of its corporate social responsibility. This will facilitate the implementation of blended teaching strategy, capable of improving students' achievements in history.

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