

EFFECTIVENESS OF BLENDED LEARNING ON THE ABILITY LEVEL OF UPPER-BASIC STUDENTS IN SOCIAL STUDIES IN OGBOMOSO, NIGERIA

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Abstract

Blended learning as a modern innovation in instruction has come to stay due to the multifarious problems associated with conventional instruction. In every class, the need of the three categories of students should not be taken with levity. Hence, this research looked at how blended learning can be used to improve the performance of the fast, average and slow learners. A quasi-experimental research design was used. The population consists of all Upper-Basic School Students in Ogbomoso, while Upper-Basic School II students serves as the target population. Two schools were purposively sampled. Social Studies Performance Test (SSPT) instrument was used. The research questions which were translated to hypotheses were analyzed with Analysis of variance (ANOVA) and Analysis of Co-Variance (ANCOVA) at 0.05 level of significance. The study revealed that there was a significant difference in the performance of high, medium and low ability level students exposed to blended learning. Another finding shows that there was no interactive effect of blended learning, gender and ability level. Arising from the findings, recommendations were made that the Curriculum planners and developers should integrate blended learning strategy into teaching and learning for improving performance of learners in Social Studies Education. Schools both public and private schools should be provided with adequate computers and other e-learning materials to foster learning. Students should however not be deprived of usage in classroom instruction.

Keyword: Learning, upper-basic, instruction, conventional, ability level

Introduction

The study of Social Studies is very keen to the actualization of the objectives of education in Nigeria as stipulated in the National Policy of Education (2013). This is because the discipline is for citizenship education and value education. Humans are at the centre of the study because he/she is the mover of things. The totality of humans must be studied. This is why Jekayinfa (2014) posited that Social Studies is concerned with human institutions such as religious, legal, political, economic, traditional, educational and social institutions. Social Studies examined their pattern of organization and functions of these human societal institutions. Social studies also examine sources and course of changes and continuity in societal institutions since these institutions were in an interdependent way to provide regulatory functions for societal existence and programme. The history, geography, economy, culture, religion and politics of humans are studied in relation to their ever changing environment. Today, Social studies is taught at every rung of education. As a subject, flexibility and dynamism should be injected to accommodate modern day practices. It is important for the Social Studies teacher to bear in mind that different instructional strategies are in vogue, therefore he/she must acquit him/herself to contemporary best practices. Maiyaki (2004) sees instructional strategies as vehicles with which students are kept actively interested and involved in activities which result in learning. He stresses that for a teacher to effectively secure the attention, interest and concentration of the students, he should know what to teach (content) how to go about it (method) and organize different teaching techniques (strategy). It is however not out of place for Social Studies teacher to utilize different techniques to achieve desired end which is learning. How effective learning is could be contingent on the versatility of the teacher using any particular learning tool e.g flipped classroom, Edmodo, google-classroom, e-learning and blended learning to mention a few.

Blended Learning is a formal form of educational arrangement in which a student learns partly through delivery of content and instruction via digital and online media with some evidences of learner control over time, place, path, or pace while still attending a normal school with bricks. Face-to-face classroom methods are combined with computer-assisted/online activities. The terms "blended," "hybrid," "technology-mediated instruction," "web-enhanced instruction," and "mixed-mode instruction" are often used interchangeably in

research literature (Pandit, 2015). Admittedly, the use of lecture recording technologies can amount to students falling behind on the materials. In a study carried out across four different universities by Sandina (2015), it was revealed that only half of the students watched the lecture videos on a regular basis, and nearly 40% of students watched several weeks' worth of videos in one sitting. This is a true reflection of the weakness inherent in pure online learning. In as much as we crave to integrate ICT into learning, the place of the teacher is also sacrosanct. Nothing can replace the teacher. To get the best result however, it is important to mix online learning with the age-long face to face instruction.

Tosun (2015) is of the view that as against pure e-learning which connotes the use of electronic media to learn, blended learning interchange traditional face-to-face teaching and learning environment with different kinds of technology-based instruction. Bielawski and Metcalf (2003) submits that blended learning centres on optimizing achievement of learning objectives by using the right learning technologies to match the right learning styles to transfer the right skills to the right person at the right time. Marsh (2012) observes that a “blend” of teaching approaches have always been used in order to provide a learning environment as rich as possible for our learners. The “expectation” of our learners to use technology in and out of the classroom as part of the learning process is what is new.

Mustafa, (2015) in his findings discovered that blended learning environment had meaningful increase in average academic achievement when juxtaposed to students in face-to-face learning environment. In addition, blended learning has a medium level effect size on students' levels of academic achievement. No significant statistical differences were detected for students' engagement between both groups. However, in blended learning approach, average development of student engagement revealed a meaningful rise when compared to face-to-face learning approach. Pretest-posttest control group quasi-experimental design was utilized. The study was conducted with 52 students in experimental group and 55 students in control group. This finding is an indication that blended learning has the potential of increasing learner's ability. Low students can turn to average or high, average students can be high scorers while the high scorers can still maintain their scores or leverage it up.

Cobanoglu (2014) study on the effect of blended learning on students' achievement, perceived cognitive flexibility levels and self-regulated learning skills reveals that b-learning based program had a positive effect on the students' achievement, perceived cognitive flexibility levels and self-regulated learning skills. Also, it was revealed that students gained different perspectives and were able to think deeply and critically. Adesoji (2008) also researched into students' ability levels and effectiveness of problem-solving instructional strategy. He found out that there was no significant difference in the performance of students in the different ability groupings after the treatment but method of instruction was found to influence academic achievement of low achievers. In times past, basic school teachers usually arrange their classrooms by ability, placing the highest-achieving students in one cluster, the lowest in another. This act went into limbo in 1980s and the 1990s as critics posited that they encourage inequality by combining poor and minority students in low-level groups. Today ability grouping has surfaced again in classrooms New York is a typical example of where ability grouping has been resuscitated. In an analysis of data collected by the government's National Assessment of Educational Progress, evidence shows that of the fourth-grade teachers surveyed, 71 percent declared they had grouped students by reading ability in 2009, up from 28 percent in 1998. Grouping students have helped teachers to cope with the different levels of ability and achievement.

Several studies have been extensively done on effect of blended learning strategy on science subjects and in abroad. It could be deduced that due to some constraints, much research work tailored at blended learning especially in Social Studies has not been done much in Nigeria to the best knowledge of the researcher. Hence, this research work hope to fill the perceived gap. Owing to the development in science and technology with the shortcomings of both e-learning and traditional learning strategy, blended learning strategy is considered most appropriate for modern educational practices. It is against this backdrop that this present study took a cursory look at the effectiveness of blended learning on the performance of different categories of learners.

Research Question

1. What is the difference in the performance of students with high, medium, and low ability level exposed to blended learning strategy?

Research Hypotheses

1. There is no significant difference in the performance of students with high, medium, and low ability level exposed to blended learning strategy.
2. There is no significant interaction effect of gender, ability level and blended learning strategy on the performance of Upper Basic Social Studies Students.

Methodology

The study employed a quasi-experimental design involving pre-test, post-test experimental control group. These two groups were pretested and the experimental one was treated with blended learning. The experimental group received its instruction through a blogspot, facebook group and wikispace while still alternating learning with face to face contact. The control was not treated but taught with the conventional method. Face to face contact was only established as there was no electronic mediation. None of the instruction was received through the virtual learning. The independent variable was used against the dependent variable (ability level). The researcher used an adapted fifty (50) objective questions culled from Junior Secondary School Certificate Examination (JSCE) questions from 2010-2015 titled Social Studies Performance Test (SSPT). The Performance Test was administered as pre-test and post-test for the two groups (students taught using blended learning strategy and those taught using the Conventional method). The scoring was as follows: 0-17; Low Scorers, 18-34; average Scorers; 35-50 High Scorers. The face and content validity was ascertained by three lecturers in the Department of Social Sciences Education. The reliability of the instrument was carried out using split-half. Pearson Product Moment Correlation statistic was used to find the co-efficient of reliability and it was found to be 0.71.

Findings

Research Question 1: *What is the difference in the performance of students with high, medium, and low ability level exposed to blended learning strategy?*

H₀₁: There is no significant difference in the performance of students with high, medium, and low ability level exposed to blended learning strategy.

Table 1:

Analysis of variance showing difference in the performance of students with high, medium and low ability levels

	Sum of Squares	df	Mean Square	F	Sig	Decision
Between Groups	803.939	2	401.969			
Within Groups	307.031	30	10.234	39.276	.000	
Total	1110.970	32				

P < 0.05

From table 1, result shows the df (2, 32) and F value yielded 39.276 which is significant at 0.05 alpha level. Hence, the null hypothesis is therefore rejected since the P-value .000 is less than 0.05 (.000 < 0.05). This means that there is significant difference in the performance of students with high, medium and low ability levels.

Table 2:

Scheffe’s post hoc Analysis on the difference in the performance of students with high, medium and low ability levels

Ability	N	Subset for alpha = 0.05	
		1	2
Low	13	34.0000	
Average	14		39.7143
High	6		42.5000
Total	33		

Table 2 shows the Scheffe’s post hoc Analysis on the difference in the performance of students with high, medium and low ability levels. It was revealed that the three ability levels were significantly different as the high ability students has the highest mean of 42.50, followed by the average ability students with a mean of 39.71 and the low ability students with a mean of 34.00.

Hypothesis 2: *There is no significant interactive effect of gender, ability level and blended learning strategy on the performance of upper basic students in Social Studies.*

Table 3:

Result of Analysis of Covariance Showing the Interactive effect of gender, ability level and blended learning strategy on the performance of Students in Social Studies

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	628.150 ^a	6	104.692	11.118	.000	.720
Intercept	147.904	1	147.904	15.708	.001	.377
Pre_Test	163.888	1	163.888	17.405	.000	.401
Gender	7.845	1	7.845	.833	.370	.031
Group	.000	0	216.479	19.447	.000	.258
Ability_Grp	8.090	2	4.045	.430	.655	.032
Gender * Group	.000	0	19.073	1.713	.196	.030
Gender * Ability_Grp	16.436	2	8.218	.873	.430	.063
Group * Ability_Grp	.000	0	.	.	.348	.000
Gender * Group * Ability_Grp	.000	0	.	39.276	.644	.000
Error	244.819	26	9.416			
Total	48449.000	33				
Corrected Total	872.970	32				

a. R Squared = .720 (Adjusted R Squared = .655)

From table 3, result shows the F value yielded 39.276 which is not significant at 0.05 alpha level. Hence, the null hypothesis is therefore not rejected since the P-value .644 is greater than 0.05 ($.644 > 0.05$). This means that there is no significant interaction effect of gender, ability level and blended learning strategy on students' performance in Social studies.

Summary of Findings

1. There was a significant difference in the performance of students with high, average and low ability level exposed to blended learning strategy.
2. There was no significant interactive effect of gender, ability level and blended learning strategy on the performance of upper basic Social Studies Students.

Discussion of Findings

Blended learning based on so many studies have greatly impacted on the different categories of learners. The findings of this study on improvement of ability level supports Mersal and Mersal (2014) who reported that there was an improvement regarding satisfactory level of achievement and decrease in the percent of poor and very poor of blended learning group with no statistical difference between two groups. There was improvement in student's satisfaction of blended learning group regarding the course and teaching method with highly statistical significant difference between two groups. Blended learning strategy improved newly nursing student's Outcomes both academic achievement and student's satisfaction than lecture regarding new trends in nursing subject at Ain Shams University. This present study also agreed with the previous finding as there was statistical difference in the performance of low, middle and high ability grouping. Similar findings of Abakpa and Clement (2015) also showed that mastery learning approach narrowed the gap between students with high and low ability in geometry. This is at variance with the study in terms of subjects used. Mathematics was used as against Social Studies that was used in this study.

Findings on interactive effect of gender, blended learning and ability level converses with Adesoji, Omilani and Nyinebi (2015) who found out that the two-way interaction effect of treatment and mental ability on students' achievement was also significant. It was discovered that when students learn Chemistry concepts like periodicity and the rate of chemical reactions through gender pairing teaching strategy, their mental abilities determine the effect of the teaching strategy on their performance.

Conclusions

Learning today has embraced modern innovations. The academic parlance has not been left behind in the campaign for incorporation of technology into learning. The numerous advantages cannot be quantified. There has been a drift from the original way of using chalk and talk in the classroom to the use of e-learning alongside instruction through establishing contact. Based on research findings and corroborated by this study, blended learning has proved to improve the ability levels of students. Learners are of varying intellects and as such, it is essential to look at the effectiveness of blended learning of different ability groupings. This study therefore concludes that blended learning is very potent in improving the ability grades. More so, a class taught with blended learning will be highly motivated and coordinated.

Recommendations

1. The Curriculum planners and developers should integrate blended learning strategy into teaching and learning for improving performance of learners in Social Studies Education.
2. Schools both public and private schools should be provided with adequate computers and other e-learning materials to foster learning. Students should however not be deprived of usage in classroom instruction.

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