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**ADOPTION OF E-LEARNING FOR UPPER-BASIC SOCIAL STUDIES ACADEMIC
PERFORMANCE IN OGBOMOSO, NIGERIA**

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ADOPTION OF E-LEARNING FOR UPPER-BASIC SOCIAL STUDIES ACADEMIC PERFORMANCE IN OGBOMOSO, NIGERIA

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Abstract

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Contemporary challenges and demands have made the physical mode of instruction obsolete and tasking. Technology has simplified even teaching giving options to students to choose from. Social Studies students' performance though not bad could be better through the adoption of e-learning. Hence, the need for this study. This involves the experimental group (e-learning) and control group (conventional). Topics in the Upper-basic school curriculum was taught. An adapted instrument of test containing fifty (50) objective test was drafted from Oyo State basic education certificate examination (BECE). The population for the study was all Social Studies students in Ogbomosho while the target population was all upper-basic 2 Social Studies students. Purposive sampling technique was used to select Maryland Catholic Grammar School Students because they have a computer laboratory with functional internet connectivity. The reliability was gotten through split half using cronbatch and it yielded an index of 0.83. Percentages, Mean and Analysis of Covariance were used to analyze the data. Findings of the study revealed that the general performance of students in Social Studies was above average and that there is a significant effect of e-learning on the performance of students in Social Studies. It was however recommended that students at the basic school level should be allowed to adopt e-learning, devices to be used by basic school students should be censored and restricted and schools should be adequately equipped with ICT facilities.

Introduction

The fate of teaching-learning has been changed arising from modern technological advancement. The use of internet and electronic devices has facilitated teaching thereby making the process seamless and less time consuming. Many graduates and undergraduates programme organisers are fast adopting and integrating e-learning. The global covid-19 pandemic has further forced many

schools to adopt e-learning. During the period, many schools were closed down without remedial measures. Time ordinarily meant for learning was diverted to social media use, internet surfing by many and made productive through online skills learning by few.

Qiu, Zhang, Sheng, Jiang, Zhu, Xiang, Jiang & Chen (2022) posited that e-learning has become a typical dimension of education and an essential aspect of the building of education that is largely internet-based. The effect of e-learning on the performance is largely censored by the digital literacy level of learners (Mohammadyari & Singh 2015). E-Learning could mean a learning involving the internet or computer aided instruction. It passes information to the learners through a web connection without the barrier of location. Electronic media are used to mediate teaching and learning in e-learning. It may be a supportive, partial or blended e-learning.

In a study by Franklin and Nahari (2018) on the impact of e-learning on academic performance: preliminary examination of King Khalid University, it was found out that online teaching acceptance and technical competency and synchronous teaching have indirect influence on performance of academic staff. Likewise, Banda, Tailoka, and Muma (2021) substantiated the earlier position when they discovered that e-learning approach improved students' academic performance of third year students in statistics at Mukuba University. Jawad and Shalash (2020) also noticed a positive change in result of Al-Quds Open University students when exposed to e-learning.

A rider to empirical evidences is the study of Fayomi, Ayo, Ajayi and Okorie (2015) which provides evidence of significant impact of e-learning in aiding academic studies and self-development resulting to enhanced learning process and high academic performance. Butt et al (2021) averred that online quality positively predicts performance through the mediating role of user satisfaction and task technology fit and actual usage of system during covid period. Saputra and Hidayani (2021) also corroborated earlier findings when they found out that e-learning method has impact on students' achievement in English. Balakamakshi and Savithri (2021) work on effect of e-learning on student's academic performance at college level showed that e-learning provides time flexibility to the students. This was done through a survey carried out. More so, Alabi (2021) study on impact of e-learning on academic performance of secondary school students in Kosofe local government areas, Lagos state revealed a positive relationship between e-learning and academic achievement of secondary school students (junior, senior).

In a like manner, Lumadi (2013) study on e-learning's impact on the academic performance of student-teachers: A curriculum lens revealed that e-Learning has a significant influence on the performance of students as student-teachers taught using eLearning consistently performed better than student-teachers taught using the traditional method. Ahmed et al (2021) findings revealed that perception about e-learning, adoption of e-learning and environmental factors has affected the performance of students in Nasarawa State University.

Social Studies is a social science subject taught at every level of education in Nigeria including the basic school. The subject centres on human-environmental relationship for the purpose of citizenship education. The basic school level comprises the lower basic, middle basic and upper basic. The upper basic school begins the secondary school education and Social Studies is offered there. Performance of Social Studies in time past and recently based on Basic Education Certificate Examination (BECE) has been fluctuating. The results are not bad but it hoped that modern approaches and methods like e-learning can still improve the performance. Table one (1) displays the trends of performance in Oyo State from 2008 to 2015.

Table 1: Table showing performance trend of Upper Basic Social Studies in Oyo State from 2008 till 2015

Year	Total Candidates	No. of % Distinction (A)	No. of % Credit (C)	No. of % Pass (P)	No. of % Fail (F)
2008	79,711	6,492 (8.14%)	50,088(62.84%)	17,298 (21.70%)	5,833 (7.32%)
2009	85,129	9,350 (10.98%)	43,453 (51.05%)	27,405 (32.19%)	4,921 (5.78%)
2010	80,161	15,550 (19.40%)	54,600 (68.11%)	9,747 (12.16%)	264 (0.33%)
2011	74,585	13,443 (18.02%)	27,330 (36.69%)	25,728 (34.49%)	8,054 (10.80%)
2012	89,033	15,953 (17.92%)	37,730 (42.38%)	26,607 (23.88%)	8,743 (9.81%)
2013	78,303	2,584 (3.30%)	43,353 (55.37%)	19,263 (24.60%)	13,103 (16.73%)
2014	88,707	15,569 (17.55%)	60,134 (67.79%)	12,167 (13.72%)	837 (0.94%)
2015	95,419	18,283 (19.16%)	65,773 (68.93%)	10,962 (11.49%)	401 (0.42%)

Source: Oyo State Ministry of Education (Examination Department)

Beyond performance, e-learning has proven to motivate students to learn and it has greatly facilitated learning breaking barriers. Many other researchers have dwelt extensively on the role of e-learning while the nature of research varies. Most studies conducted have been on tertiary school learners and limited studies on basic school level. Where there are studies on lower-level students, performance of Social Studies students appears scarce especially in Nigeria.

Research Questions

1. what is the general academic performance of upper-basic Social Studies students?
2. what is the effect of e-learning on the performance of Upper-basic Social Studies students?

Research Hypothesis

H₀₁: There is no significant effect of e-learning on the performance of Upper-basic Social Studies students.

Method

The study is a quasi-experimental design having pre-test, post-test experimental control group. Quasi-experimental studies according to Harris (2006) encompass a broad range of nonrandomized intervention studies. This design is frequently used when it is not logistically feasible or ethical to conduct a randomized controlled trial. This involves the experimental group (e-learning) and control group (conventional). The experimental and control groups was given a pre-test, then, the experimental group was exposed to the treatment variable. This group was taught using the e-learning while the control group was taught using the traditional strategy. Students were taught online through wiki space and blogspot. Face to face interaction was avoided for five (5) weeks of the experiment. The control group was taught through the face to face for five (5) weeks without any online touch. Topics in the Upper-basic school curriculum was taught. An adapted instrument of test containing fifty (50) objective test was drafted from Oyo State basic education certificate examination (BECE). The test was administered to the students both as pretest and post-test. The population for the study was all Social Studies students in Ogbomoso while the target population was all upper-basic 2 Social Studies students. Purposive sampling technique was used to select Maryland Catholic Grammar School Students because they have a computer laboratory with functional internet connectivity. The face validity of the instrument was through lecturers in the Department of Social Sciences Education while the reliability was gotten through cronbatch and it yielded an index of 0.83. Percentages, Mean and Analysis of Covariance were used to analyze the data.

Result

Demography

Table 2: Gender Distribution of the Respondents

Gender	Frequency	Percentage (%)
Male	34	55.7
Female	27	44.3
Total	61	100.0

Table 2 shows that out of 61 subjects that participated in the study 34 (55.7%) were males and 27 (44.3%) were females. This implies that the male subjects were more than the female subjects.

Table 3: Distribution of the Respondents based on Group

Group	Frequency	Percentage (%)
Experimental	33	54.1
Control	28	45.9
Total	61	100.0

Table 3 shows that 54.1% (33) of the subjects were in Experimental group and 45.9% (28) were in Control group. They are 61 (sixty-one) students in all.

Research Question One: What is the general academic performance of upper basic social studies students?

Table 4: Descriptive Statistics of Students' Performance in Social Studies

	Mean	S.D	Minimum	Maximum
General Performance	55.49	6.15	24	47

As shown in table 4, an average mean score of 55.49 with a minimum score of 24 and a maximum score of 47 was obtained as the general performance of students in social studies. This indicated that the general performance of students in social studies was above average.

H₀₁ *There is no significant effect of e-learning on the performance of upper basic social studies students.*

Table 5: Result of Analysis of Covariance showing the effect of e-learning on Students' Performance in Social studies.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1579.106 ^a	3	526.369	43.474	.000	.696
Intercept	544.975	1	544.975	45.011	.000	.441
Group	155.839	1	155.839	12.871	.001	.184
Pre_Test	1305.492	1	1305.492	107.823	.000	.654
Error	690.140	57	12.108			
Total	79109.000	61				
Corrected Total	2269.246	60				

a. R Squared = .696 (Adjusted R Squared = .680)

Table 5 shows df (1, 60) and F value of 12.871 which is significant at 0.05 alpha level. Hypothesis one is therefore rejected since P value .001 is less than 0.05 alpha level (.001 < 0.05). This implies that there is significant effect of e-learning on the performance of students in Social Studies. The posttest mean score of the two groups shown in Table 6 is evidence of this.

Table 6: Posttest Mean Score of the Group

Group	Mean	Std. Deviation
Experimental	38.0	5.22
Control	33.4	6.49
Total	71.4	11.71

As shown in Table 6 students exposed to e-learning had the highest mean score of 38.0 and students that were not exposed to e-learning have the least mean score of 33.4 which indicate the significant difference in the performance of the groups.

Discussion of Finding

The findings of this study agree with researches of some people while it disagrees with others. The research question on performance and the finding disagrees with empirical findings on

performance. In most of the studies reviewed, the students' performance before the experiment was low unlike the performance of Social Studies students which was average. This suggests that the students were already of average performance before exposure to e-learning. Further finding on effect of e-learning support many findings however some negates. Franklin and Nahari (2018) study is at variance with the findings of this study as they found out that online teaching acceptance and technical competency and synchronous teaching have indirect influence on performance of academic staff. The finding of the present study has direct effect and not indirect effect. Banda, Tailoka, and Muma (2021), Jawad and Shalash (2020) are all similar but different in the area of locale of study and respondents. While they worked on university students, this study worked on upper basic. Fayomi, Ayo, Ajayi and Okorie (2015), Ahmed et al (2021), Alabi (2021) and Lumadi (2013) though local and different with nature of research supports the second finding of this study. Butt et al (2021), Saputra and Hidayani (2021) also corroborated second finding except that Saputra and Hidayani worked on English. Balakamakshi and Savithri (2021) work on effect of e-learning on student's academic performance at college level showed that e-learning provides time flexibility to the students.

Conclusions

The importance of e-learning cannot be over-emphasized nor underestimated. The global world is tilting towards computerization; therefore, everybody must move with this. Teaching and learning have gone beyond the traditional face-to-face instruction to learning through the web. Occasions like pandemics and unforeseen circumstances can make a real life teaching impossible. It can be concluded that adoption of e-learning can greatly improve students' performance in Social Studies even if it is good. The learning also affords students to stay in their comfort zone and still receive instruction.

Recommendation

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

1. students at the basic school level should be allowed to adopt e-learning and not be regimented to the regular face to face instruction.
2. devices to be used by basic school students should be censored and restricted in terms of usage because of underage students.
3. schools should be adequately equipped with ict facilities to make e-learning stress-free.

References

- Ahmed, A. T., Onuigwe, G. C., & Aliyu, H. I. (2021). Effect of e – learning on academic performance of students in nasarawa state university, keffi. *University of Nigeria Journal of Political Economy*, 11 (1), 228-240.
- Alabi, M. A. (2021). Impact of e-learning on academic performance of secondary school students in kosofe local government areas, lagos state. *International Journal of Innovative Technology Integration in Education*, 5 (1), 56-61.
- Banda, G., Tailoka, F. P., & Muma, E. (2021). Effect of e-learning on the academic performance of third year students in statistics at Mukuba University. *Journal of Mathematics and Science Teacher*, 1(2), em004. <https://doi.org/10.29333/mathsciteacher/11277>
- Balakamakshi, T. Y., & Savithri, R. (2021). Effect of e– learning on student’s academic performance at college level. *Palarch’s Journal of Archaeology of Egypt/Egyptology*, 18 (1), 4690-4694.
- Butt, S., Mahmood, A., Saleem, S., Rashid, T., & Ikram, A. (2021). Students’ performance in online learning environment: the role of task technology fit and actual usage of system during covid-19. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.759227>
- Fayomi, O., Ayo, C., Ajayi, L., & Okorie, (2015). The impacts of e-learning in facilitating academic performance among private secondary schools and tertiary institutions in ota, ogun state , Nigeria. *Core*. Retrieved from https://core.ac.uk/display/95550783?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1 27/02/2023
- Franklin, U. E., & Nahari, A. A. (2018). The impact of e-learning on academic performance: preliminary examination of king khalid university. *International Journal of Academic Research in Progressive Education and Development*, 7(1), 83–96. <http://dx.doi.org/10.6007/IJARPED/v7-i1/3903>
- Jawad, Y. A. L. A., & Shalash, B. (2020). The impact of e-learning strategy on students' academic achievement case study: Al- Quds Open University. *International Journal of Higher Education*, 9 (6), 44-53.
- Lumadi, M. W. (2013). E-learning’s impact on the academic performance of student-teachers: A curriculum lens. *Mediterranean Journal of Social Sciences*, [S.l.], 4 (14), 695. Retrieved

from <https://www.mcser.org/journal/index.php/mjss/article/view/1653> on 02/02/2023

DOI: [10.5901/mjss.2013.v4n14p695](https://doi.org/10.5901/mjss.2013.v4n14p695)

Mohammadyari, S. & Singh, H. (2015). Understanding the effect of e-learning on individual performance: The role of digital literacy. *Computers & Education*, 82, 11-25.

<https://doi.org/10.1016/j.compedu.2014.10.025>

Saputra, A., & Hidayani (2021). The impact of e - learning on students' academic achievement in English. *Jurnal Keislaman dan Ilmu Pendidikan*, 1 (1), 124-137 [https://ejournal.yasin-](https://ejournal.yasin-alsys.org/index.php/alsys)

[alsys.org/index.php/alsys](https://ejournal.yasin-alsys.org/index.php/alsys)

Qiu, F., Zhang, G., Sheng, X. *et al.* (2022). Predicting students' performance in e-learning using learning process and behaviour data. *Sci Rep* 12, 453. [https://doi.org/10.1038/s41598-](https://doi.org/10.1038/s41598-021-03867-8)

[021-03867-8](https://doi.org/10.1038/s41598-021-03867-8)