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IMPACT OF E-LEARNING ON ACADEMIC PERFORMANCE OF STUDENTS IN SECONDARY SCHOOLS IN ABUJA MANUCIPAL AREA COUNCIL (AMAC) FEDLRAL CAPITAL TERRITORT ABUJA.

BY

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The study is on the impact of e-learning on academic performance of students in secondary schools. A survey research design was adopted for the study. Structured questionnaires have used to collect information. The instrument was validated by expert in education management. The population of the study is as 20 principals. 465 teachers. 275 students. The sample size for the studs was 80 which include 5 principal, 25 teachers and 50 students five research questions and five hypothesis guided this study. The data was analyzed using frequency and percentage and analysis of variance was used to test the hypotheses at 005 significant level. One of the findings was that browsing skills enhanced students learning of computer. It was recommended that government should intensify effort to provide more facilities for e—learning in schools. Non-governmental organizations and PTA should help to provide ICT facilities.

Introduction

This is the age of World Wide Web and we are living in a globalized era, where the world is massively being connected. The e-learning initiatives have connected the whole world and have removed the harrier of age, place, time and social economic nature. The technological revolution has created a new dimension in education system. The e-learning is called electronic learning where education via networking Wild (2002) explained e-learning as the process of transferring knowledge of training and education via networked interactivity and distribution technologies. Sam brook (2003) opines that e- learning as learning and communication exercise across computers network or any other electronic sources.

Hammad (2008 opined that e-leaning system made students to interact anything from wherever with different instructional materials sound. pictures. video thorny internet. In addition learners can communicate with teachers and classmate both individually or as group discussing with the use of message exchanges and the video conference. The Proof of Concept POC. 2010) protect showed that e-learning for young children are practical lessons to guide future efforts. The project as a whole give the impotance of comprehensive approach that combine child friendly mobile learning devices with wireless internet access, relevant content and teachers who are skilled at using technology to enhance teaching and learning. The role of e-learning in enhancing academic performance has been reviewed by some scholars which all tends towards positive achievements. Windy (2010) opined that various e-learning tools have played great role in the academic performance of students.

In a review of empirical studies on Computer Assistant Instruction (CAI). Johnson (2005) concluded among others that the use of computer assisted instruction has produce higher achievement in academic performance 0f students from the use of conventional instruction alone. According to Sangeeta (2011) Students understanding of the basic

functions of a web browser will improve their ability to study effectively and efficiently. The students need to understand hardware and software, so as to be able to modify web pages, get familiar with common web related terms. The e- tutoring, e — coaching or e-mentoring is a service which provides human and social dimensions that can he offered to learners to support them through the learning experiences.(Monohar 2012) She stressed further that e-tutoring has helped mane students to get help in their academic performance in secondary school. However, Shikhar (2011) opined that collaborative activities ranges from discursions and knowledge sharing together on a common project, social software, such as charts discussion frictions are used for online collaboration among learners which in turn enhance their academic performance. According to Leonard (2010), data base is information organized in a such a way that computer program can quickly select pieces of data. Learners can access information that is correct and up to date through the web information databases. The data base enables the students to modify and extract information. In recent times most learners are floss conversant with computer skills since the world has gone global. However, some learners are more prepared to use e-learning technologies to facilitate their educational progress, individual readiness account for the success of e-learning application in education. Levin and Arafeh (2002) stressed on the difference between students who are gifted in the internet and those who have little opportunity to develop their experience with networking tools. It was against this background that the following research objectives and questions were drawn.

Objectives of the Study

The objectives of the study were to:

i. Examine the impact of browsing skills on academic performance of students in secondary school in Abuja municipal council FCT.

ii. Determine the impact of e-tutoring or e-coaching on academic performance of students in secondary school in Abuja municipal council FCT

iii. What are the impact of collaboration learning on academic performance of student in secondary school in Abuja municipal council FCT ?

iv. What is the impact of virtual class room learning on academic performance of students in secondary school in Abuja municipal council FCT?

v. What is the impact of database information on academic performance of students in secondary school in Abuja municipal council FCT?

Research Questions

i. What is the impact of browsing skills on academic performance of students in secondary school in Abuja municipal council FCT?

ii. What is the impact of e-tutoring or e-coaching on academic performance of students in secondary school in Abuja municipal council FCT?

iii. What are the impact of collaboration learning on academic performance of student in secondary school in Abuja municipal council FCT ?

iv. What is the impact of virtual class room learning on academic performance of students in secondary school in Abuja municipal council FCT?

v. What is the impact of database information on academic performance of students in secondary school in Abuja municipal council FCT?

Null Hypotheses

The following hypothesis guided this study.

i. There is no significant difference in the opinion of respondents on impact of browsing skills and academic performance of students.

ii. There is no significant difference in the opinion of respondents on impact of e-tutoring or e-coaching on academic performance of students.

iii. There is no significant difference in the opinion of respondents on impact of collaboration learning on academic performance of students.

iv. There is no significant difference in the opinion of respondents on impact of virtual class room learning on academic performance of students.

v. There is no significant difference in the opinion of respondents on impact of database information on academic performance of students.

Research Methodology

Survey research design was used for the study. This was used in order to collect data from the respondents. The population of the includes all JSS1-JSS3 students in twenty (20) secondary schools in Abuja municipal area council. FCT and 20 school principals and 465 teachers and students. Table 1.1 shows details.

Table 1.1: population of the study

S/N	Name of Schools	No of JSS1-3 students	No of Principal	No of Teacher
1	Junior secondary school Asokoro	100	1	20
2	Junior secondary school Jabi	100	1	20
3	Government secondary school Wuse	100	1	20
4	Government secondary school, Garki	200	1	20
5	Government secondary school, Life Camp	100	1	25
6	Government secondary school Gwarimpa	200	1	25
7	Government secondary school Wuse II	150	1	25
8	Government secondary school, Garki II	150	1	30
9	Treasure House Montessori	150	1	30

10	Funtai international school, Asokoro Abuja	100	1	30
11	Pacesstter Academic Wuse	150	1	20
12	The Young shall grow	150	1	20
13	All saint secondary school, Wuse	150	1	20
14	Christ King's College Garki	200	1	20
15	Sunshine academic Garki	100	1	20
16	Biola international school Jabi	100	1	20
17	Wuse College of commercial and technical school125	150	1	25
18	Mount Zion international school, Life Camp	150	1	25
19	Prestige academic Gwarimpa	150	1	25
20	Queen of peace secondary school Garki	100	1	25

Source: Ministry of Education FCT Abuja. 2015

The sample size includes five secondary schools with fifty students and five principals twenty five teachers, and the total sample size is eights (80): The sample size for the study was selected through the format of Nwana (2004) that the population is a few hundred the sample size should be 40%, population of many hundreds the sample size should be 20%, few thousands the sample size should be 10%, several thousands of the sample size should be 5%. Based on this sample. size of principals would be 40% of 20 which gives 8 principal would be 40% of 20 which give 8 principal, teachers would be 275 and students would be 93, however, the study also used stratified random sampling technique was adopted to get a desired sample size for the study.

The instrument used for the study was structured questionnaire. The questionnaire

was designed using the Likertpoint rating scale with Strongly Agree 4 points, Agree 3 points. Undecided 0 point. Disagree 2 points and Strongly Disagree. 1 point. The instrument used was validated by expert in Faculty of Educational Foundation and Cubiculum instruction. Ahmadu Bello University, Zaria. The reliability of the instruments was determined using Cronbach Alpha and the result was 664.

Table 1.2 sample for the study

S/N	Name of Schools	No of JSS1-3 students	No of Principal	No of Teacher
1	Junior secondary school Jabi	10	1	5
2	Government secondary school Garki	10	1	5
3	Funtai international school Asokoro	10	1	5
4	Government secondary school, Gwarimpa	10	1	5
5	Sunshine academy Garki	10	1	5
	Total	50	5	25

Source: Ministry of Education FCT Abuja. 2015

Result

This focused on the presentation, analysis of data collection from the principals, teachers and students, opinion in the questionnaire administered. Mean. frequency, percentage and ANOVA statistics were used to summarize analysis and give a general description of the data collected.

Table 2: opinion f respondents on impact of Browsing skills on Academic performance of students

Respondents	Valid	Frequency	Percentage
i Principal	Agree	4	80.0

	Strongly Agree	1	20.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0
ii Teachers	Agree	23	92.0
	Strongly Agree	0	0.0
	Undecided	0	0.0
	Disagree	1	4.0
	Strongly Disagree	1	4.0
iii Students	Agree	49	98.0
	Strongly Agree	1	2.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0

Table 2 shows that 5 principals (80%) agree that browsing skills make learning on computer easy thus enhance academic performance while 23 teachers (92.%) 1 (4.0%) disagree and 1 (4.0%) strongly disagreed and 49 students (98.0%) agree and 1 student (2.0%) strongly agree.

Table 3: opinion of respondents on impact of e-tutoring on academic performance of students

Respondents	Valid	Frequency	Percentage
i Principal	Agree	4	80.0
	Strongly Agree	1	20.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0
ii Teachers	Agree	25	100

	Strongly Agree	0	0.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0
iii Students	Agree	50	100
	Strongly Agree	0.0	0.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0

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Table 3 shows that 4 principals (80%) agree, 1 (2.0%) agreed that e-tutoring support students learning through online tools while 25 (100.0%) teachers agree and 50 students agree.

Table 4: opinions of respondents on impact of e-collaborative learning on academic performance of students

Respondents	Valid	Frequency	Percentage
i Principal	Agree	4	80.0
	Strongly Agree	1	20.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0
ii Teachers	Agree	23	92.0
	Strongly Agree	0	0.0
	Undecided	0	0.0
	Disagree	1	4.0
	Strongly Disagree	1	4.0

iii Students	Agree	49	98.0
	Strongly Agree	1	2.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0

Table 4 shows that 4 principals (80%) agree, 1 (2.0%) agreed that e-tutoring support students learning through online tools while 25 (100.0%) teachers agree and 50 (100%) students agree.

Table 5: opinion of respondents on impact of e-learning virtual classroom on academic performance of students

Respondents	Valid	Frequency	Percentage
i Principal	Agree	5	100.0
	Strongly Agree	0.0	0.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0
ii Teachers	Agree	25	100
	Strongly Agree	0	0.0
	Undecided	0	0.0
	Disagree	0	4.0

	Strongly Disagree	0	4.0
iii Students	Agree	48	96.0
	Strongly Agree	2	4.0
	Undecided	0	0.0
	Disagree	0	0.0
	Strongly Disagree	0	0.0

The table 5 shows 5 (100%) principals agree that learning in virtual classroom helps learners to have thorough use of different application that enhance student academic performance while 25 (100%) agree and 48 (96.0%) agree and 3 (4.0%) strongly agreed.

Table 6: opinion of the respondents on impact of database information on academic performance of students

Respondents	Valid	Frequency	Percentage
i Principal	Agree	0	0.0
	Strongly Agree	0	0.0
	Undecided	0	0.0
	Disagree	5	100.0
	Strongly Disagree	0	0.0
ii Teachers	Agree	0	0.0
	Strongly Agree	0	0.0
	Undecided	0	0.0

	Disagree Strongly Disagree	25 0	100.0 0.0
iii Students	Agree Strongly Agree Undecided Disagree Strongly Disagree	0 2 0 48 2	0.0 2.0 0.0 96.0 20

Table 6 shows that the 5 (100%) principals disagreed that students ability to use different application in database information has not help to improve students' academic performance 25 (100%) teachers disagreed and 48 students (96.0%) disagreed, also 2 (2.20%) strongly disagreed.

Hypothesis 1

Five hypothesis were raised in 'this study. The details of the data could be seen in table I and the hypotheses were tested at 0.05 levels of significance. Hypothesis one states that there is no significant difference in the opinions of Principal. Teachers and students on impact of Browsing skills and academic performance of students"

Table 7: analysis of variance of no significance in the ipinion of principal, Teachers and students on impact of Browsing skills on academic performance of students.

Status	Sum of square	DF	Mean square	F	Prob.	F-critical
Between group	46.967	2	23.4840	6.862	002	196
within group	263.520	77	3.422			
Total	310.487	79				

Table 7 shows above f-ratio value (6.862), at df 77 and at the level 0.05. the critical value (1.96) is less than F. ratio values (6.862). The probability level of significance P(002) is less than 0.05. This means that there is a significant difference in the opinions of principal, teachers and students on impact of Browsing Skills and academic performance of students Therefore, the null hypothesis one is rejected.

Hypothesis 2

There is no significant difference in the opinions of Principal. Teachers and Students on F-Tutoring and academic performance of students.

Table 8: Analysis of Variance of no significant difference in the opinions of Principal. Teachers and Students on E-Tutoring on academic performance of students

Status	Sum of square	DF	Mean square	F	Prob.	F-critical
Between group	3.128	2	1.564	3.3677	040	1.96
within group	35.760	77	464			
Total	38.888	79				

Table 2 shows F-ratio value (3.367) at 2 df 77 and at the level (1.05. the critical value (1.96) is less than (ratio value (3.367). the probability level of significance p.(040) is less than (1.05. This means that there is a significant difference in the opinions of principal, teachers and students on E- Tutoring on academic performance of student. Therefore the null hypothesis two is rejected.

Hypothesis 3

There is no significant difference in the opinions of Principal, teachers and Students on E-Collaborative Learning on academic performance of students.

Table 9: Analysis of variance of no significant difference in the opinions of Principal, Teachers and Students on E-collaborative Learning on Academic Performance of Students

Status	Sum of square	DF	Mean square	F	Prob.	F-critical
Between group	12.608	2	6.304	20.157	0001	1.96
within group	24.080	77	313			
Total	36.688	79				

Table 3 shots s F-ratio value (120 .157) at 2 df 77 and at the level 0.05. The critical value (1.96) is less than f.ratio value (20.157). The probability level of significance P(000) is less than 0.05. This means that there is a significant difference in the opinions of Principal, Teachers and Students on e-collaborative learning on academic performance of student Therefore, the null hypothesis three is rejected.

Hypothesis 4

There is no significant difference in the opinions of principal, teachers and students on impact of e-leaning virtual classroom and academic performance of students.

Table 10: analysis of variance of no significant difference in the opinions of Principals. teachers and Students Impact of E—Learning virtual classroom on Academic Performance of Students

Status	Sum of square	DF	Mean square	F	Prob.	F-critical

Between group	24.128 2	12.064	4.354	016	1.96
within group	213.360 77	2.771			
Total	237.488 79				

Table 4 shows F-raio value (4.354) at 2 df 77 and at the level 0.05. The critical value (1.96) is less than f.ratio values (4.354). The probability level of significance P(.016) is less than 0.05. This means that there is a significant difference in the opinions of principal, teachers and students on impact of e-leaning virtual classroom on academic performance of students. Therefore, the null hypothesis four is rejected.

Hypothesis 5

There is no significant difference in the opinions of principal, teachers and students on impact of data base information on academic performance of students.

Table 11: Analysis of Variance of no significant difference in the opinion of Principal, Teachers and Students Impact of Database Information on Academic Performance of Students

Status	Sum of square	DF	Mean square	F	Prob.	F-critical
Between group	3.310	2	1.655	799	453	1.96
within group	159.440	77	2.071			
Total	162.750	79				

Table 5 shows f-ratio value (790) at 2 df 77 and at the level 0.05. The critical value (1.96) is greater than ratio values (.799). The probability level of significance P(.453) is greater

than 0.05. This means that there is no significant difference in the opinions of principals, teachers and students on impact of database information on academic performance of students. Therefore, the null hypothesis five is retained.

Discussion of Findings

Result in 1 able 2 shows that 80.0 principals agreed that browsing skills of student make leaning on computer easy thus enhance academic performance while 92.0% of teachers agreed and 98.0% of students agreed. This is in line with Johnson (2005) that computer assisted instructions produce higher achievement in academic performance of students.

In tabel3, the result indicated that 80.0% of principals agreed that e-tutoring support students learning through online tools, l00.0% teachers agreed and l00.0% of students agreed. Thus is in line with Windy (2010) that various e-learning tools placed a great role in the academic performance of students.

Table 4. is on what is the impact of collaboration learning on academic performance of students in secondary schools. The result shows that 80% of principals agreed that software such as chart, discussion forum arc used lot online collaboration among learners and thus have improved students academic performance. 100% of teachers agreed and 100.0 students agreed which is in line with Shikhar (2011) who stressed that collaborative activities ranging from discussions, knowledge sharing on common projects are used for online e-collaborative learning and in return enhance academic performance of students.

Table 5 shown that 80.0 of principals agreed that learning in virtual classroorn help have thorough use of different application that improve students academic performance. 100.0% of teachers agreed and 96,0% of students agreed. This is in line with Sageeta (2011) who found that basic understanding of and functions of different application in web brow ser in virtual classroom will improve students ability to gather correct information from database

In Table 6. the results showed that 80.0% of principals disagreed that students ability to use different applications on database information base not helped to improve students academic performance, 100.% of teachers disagreed and 94,0% of students disagreed. This is in line with Leonard (20101 who opined that data base in formation that was not well organized in such a way that computer program could quickly select pieces of data would underscore students ability to gather correct information front database.

Conclusion

Based on the findings it can he concluded that browsing skills of students makes learning easy thus enhance academic performance, through online tools e-tutoring support. Softwares such as chart, discussion forum are used for online collaboration arnong learners and thus improve students performance. Learning in virtual classroom help learners have thorough use of different application which enhance students academic performance. Students ability to use different applications in database information has not help to improves students academic performance.

Recommendations

Based on the findings of the study it is recommended that:

1. Government should intensify effort to provide more facilities for learning in schools.
2. More ICT centres should be provided in all schools.
3. Principals and Teachers should be sent on training such as workshops, seminars to equip them with more knowledge on c-learning.
4. The uses of power point teach should be encouraged in all schools.
5. Non-governmental organization (NGOs) P.T.A should help to provide facilities such as conducive classroom. Corrupter, internet service etc.
6. Students should endeavor to visit computer centres and learn.

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