

# Utilization of Internet Facilities as Predictors of Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA of Rivers State, Nigeria

Akoko Sokiprim\*

Faculty of Education, Ignatius Ajuru University of Education, Port Harcourt, Nigeria

DOI: [10.36348/jaep.2021.v05i06.001](https://doi.org/10.36348/jaep.2021.v05i06.001)

| Received: 16.04.2021 | Accepted: 28.05.2021 | Published: 13.06.2021

\*Corresponding author: Akoko Sokiprim

## Abstract

This paper examined utilization of internet facilities as predictors of students' academic performance in private secondary schools in Obio/Akpor LGA of Rivers State, Nigeria. A correlational research design was adopted for the study to ascertain the extent utilization of internet facilities predict students' academic performance in private secondary school in Obio/Akpor Local Government Area. The population for this study consists of all the 112 private secondary schools, with 112 school principals and a student population of 3,067 totaling 3,179. The sample size of 355 respondents were drawn from the entire population using Taro Yamen's formula. The research instrument for this study was titled: Utilization of Internet Facilities Scale (UIFS) and Students' Academic Performance Scale (SAPS). The internal consistency method using Cronbach Alpha reliability statistics was used to calculate the reliability coefficients of the two instruments. The reliability coefficients of Utilization of Internet Facilities Scale and Students' Academic Performance Scale were 0.78 and 0.75 respectively. For the data that were analyzed, research questions (1-3) were answered using simple regression, while t-test associated with simple regression was used to test hypotheses (1-3) at 0.05 level of significance. The findings of the study revealed that Internet facilities such as e-library, personal phones and online social networking used in teaching and learning to a low extent predict students' academic performance in private secondary schools in Obio/Akpor LGA of Rivers State. Based on the finding, the researcher recommended among others that e-library or ICT supported teaching and learning is a Government policy for delivery of quality education to Nigerians at all levels; and so, private school owners should intensify effort to implement this policy with all sincerity to enhance students' academic performance.

**Keywords:** Utilization, Internet Facilities, Private Secondary Schools.

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## INTRODUCTION

Secondary education is the education children receive after primary education and before the tertiary stage within the range of 12-18 years (FRN, 2004). Specifically, the secondary school system is geared towards catering for the differences in talents, provision for technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development. As stated in the National Policy on Education, secondary education has two distinct objectives: preparing students for higher education and preparing students for useful living in the society.

In Nigeria, secondary education is managed by both public and private sector. The public secondary schools are run by the government, while the private secondary schools are owned and managed by private

individuals or organizations. They are not owned and administered by local, state or Federal government, though they regulate their activities. Private schools in Nigeria are established to encourage private sector participation in the establishment and running of schools, complement government efforts in the formal educational development of the children in Nigeria and participate in policy formulation (FRN, 2004).

The contribution of Private Secondary Schools to socioeconomic development are vast and cannot be overemphasized. In the present informative and knowledgeable world, several countries and Nigeria as well are faced with changes induced by market trends, development in information and communication technology (ICT) and their likes, that have taken over business organizations,

institutions, society and education in general. The development in ICT has affected the operations as well as the purpose of private secondary education systems with respect to curriculum content, instructional aids and methods of teaching. These new challenges and opportunities especially in ICT cannot be addressed with outdated educational tools but by developing a formidable curriculum studies and effectively utilizing the Internet services in teaching and learning process.

The Internet has an unending revolutionary impact on educational process worldwide. Inyiana (2002) suggested that, the Internet has indeed moved the world into a global village such that any nation or enterprise that opts to remain an island would quickly cease to be relevant in this era. Internet is a montage of thousands of computer networks that cover the planet. The uses of internet are enormous ranging from academic research, bridging communication gap between developed and developing countries, linkage with other institutions of the world, receipt of global information and also assist students to be computer literates. The internet is loaded with information which provides students with opportunity to engage in somewhat challenging time activities. The internet is a worldwide, uniform computer network connecting millions of computers across the world. It is a network in which many computers voluntarily interconnect so as to exchange information in a fast, reliable and effective manner. The internet can be said to have unifying powers amongst humans. It is a universal computer network where one can find a lot of information and where you can communicate with other people all over the world. For instance, you can look for articles in other libraries from your computer and communicate with friends.

In an effort to actualize the goal of integration of ICT in Education in Nigeria so as to meet global standard, the government according to Adaomi and Kpangban (2010) promised to provide basic infrastructure and training at the primary school. At the junior secondary school level, computer Education is made a pre-vocational elective and a vocational elective at the senior secondary school. Also, the Federal Ministry of Education launched an ICT driven project known as "School-net" which is intended to equip all schools in Nigeria with computers and communication techniques. To adequately provide ICT facilities to secondary schools, the Federal Government commissioned a Mobile Internet Unit [MIU] which operated by the Nigerian National Informational Technology Development Agency [NITDA]. The MIU is a locally made bus that has been converted into a mobile training and Cyber Centre with ten workstations all networked and connected to the internet. It is also equipped with printers, photocopiers and a number of the multimedia facilities (Adaomi and Kpangban, 2010).

All of these aforementioned efforts are geared towards enhancing students' academic performance to compete favourably with their counterparts across the globe. The ICT facilities are available in most of the academic libraries but unfortunately it has been observed by stakeholders in education that the degree of utilization is very low. In the last decades, schools have invested huge fund in ICT which is said to be a major impact in the methodology of modern teaching methods. The question is the effective impact it makes on students achievement in educational system.

Yusuf (2005) suggested that the field of secondary education has been affected by internet access, which has undoubtedly affected learning, teaching, and research. The cluster of technologies called the "Internet" has the ability to complement, reinforce, and to enhance the educational process (Simond, 2008). With the rapid advancement in ICT and a decline in the price of computers, information sources have become affordable to students both in print form and online (Wee, 1999). Therefore, Doyle (1994) stressed that the individuals of this modern age must have the ability to access information and use information from a various source. These sources include the computer and internet. As a result of this, students increasingly utilize the internet to do research or communicate on social media platforms on their own initiative, and satisfy their other forms of information needs (Smith & Philips, 1999). It is on this premise that this study sought to ascertain the extent utilization of internet facilities predict students' academic performance in private secondary school in Obio/Akpor Local Government Area of Rivers State.

### **Statement of the Problem**

Internet facilities are indispensable when it has to do with the transmission of right knowledge, skills, norms and values of the society to the students. It is essential for proper school organization and actualization of educational goals. For education to succeed depends mainly on the availability and utilization of internet facilities which are involved in the educative process of the students. The relevance of internet lies in the accessibility of its facilities and materials.

Baekhe (2010) asserted that at present, the Internet is used by more than 50% of the world population as its applications are found in nearly every field of life be it marketing, communication, news, knowledge, shopping, entertainment and education. Providing Internet facilities in the school library for instance makes it easier for many students to have access to the Internet. While, the government policy emphasizes provision of infrastructures in public schools, what is the fate of private schools? In most state in Nigeria the Ministry of Education has more registered private schools with huge enrollment as compared to public schools. The implication of this is

that whatever happens in these private schools would have serious impact on educational system of the state.

Hence, this study is very necessary to highlight utilization of Internet services in the private secondary schools. Considering the fact that Internet use by students at secondary school level is yet to be formerly recognized as a means of improving academic performances, because curriculum developers underestimate its importance at that level, students' problems are further compounded, as they do not have the full capacity to use the internet and understanding of the use of internet for academic purpose (Ukpebor, 2010). Students are not taught information, computer and internet literacy skills in schools, while digital device remains a succeeding factor in developing nations.

However, many private schools can boast of computer laboratory, but only few can pride themselves on internet connectivity. The cost of access points and connections to the internet is a source of concern to secondary school students and private school owners respectively. The internet has multiple websites to assist students improve their academic performance by exchanging ideas, obtain information, data, and it also provides interactive tools for students to access feedback from other students across the globe. It is against this background the study examined the extent utilization of internet facilities predict students' academic performance among Secondary school students in Obio-Akpor Local Government Area of Rivers State.

### Purpose of the Study

The purpose of this study was to investigate the utilization of internet facilities as predictors to students' academic performance in Private secondary schools in Obio/Akpor LGA. In specific terms, the study sought to:

1. Examine the extent e-library used for teaching and learning predict students' academic performance in Private secondary schools in Obio/Akpor LGA.
2. Ascertain the extent personal phones used for teaching and learning predict students' academic performance in Private secondary schools in Obio/Akpor LGA.
3. Determine the extent to which online social networking used for teaching and learning predict students' academic performance in Private secondary schools in Obio/Akpor LGA.

### Research Questions

1. To what extent does e-library used for teaching and learning predicts students' academic performance in Private secondary schools in Obio/Akpor LGA.
2. To what extent does personal phones used for teaching and learning predicts students' academic

performance in Private secondary schools in Obio/Akpor LGA.

3. To what extent does online social networking used for teaching and learning predicts students' academic performance in Private secondary schools in Obio/Akpor LGA.

### Research Hypotheses

The following hypotheses were postulated for the study. These hypotheses were tested at 0.05 level of significance.

1. E-library used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.
2. Personal phones used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.
3. Online social networking used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.

### METHODOLOGY

This study adopted a correlational research design to ascertain the extent utilization of internet facilities predict students' academic performance in private secondary school in Obio/Akpor Local Government Area of Rivers State, Nigeria. The population for this study consisted of all the 112 private secondary schools, with 112 school principals and a student population of 3,067 totaling 3,179 in Obio/Akpor LGA (Source: Department of Planning, Research and Statistics, Rivers State Ministry of Education, 2020). The sample size of 355 respondents were drawn from the entire population using Taro Yamen's formula. The research instrument for this study was a questionnaire titled: Utilization of Internet Facilities Scale (UIFS) and Students' Academic Performance Scale (SAPS). The instruments have two sections (A and B). Section A elicited demographic information from the respondents, while section B prompted items on utilization of internet facilities and students' academic performance respectively. The items of the instrument are responded on a 4-point Likert scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE). Data used for this study were sourced primarily by the researcher and with the help of two research assistants. 355 questionnaires were administered to the respondents, after which some questionnaires were retrieved from the respondents on the spot, while some were collected some days after due to the busy nature of the respondents. As part of data collection efforts, 327 copies were retrieved and found suitable for analysis resulting in 92% response rate. The internal consistency method using Cronbach Alpha reliability statistics was used to calculate the reliability coefficients of the two instruments. The reliability coefficients of Utilization of

Internet Facilities Scale and Students' Academic Performance Scale are 0.78 and 0.75 respectively. For the data that were analyzed, research questions (1-3) were answered using simple regression, while t-test associated with simple regression was used to test hypotheses (1-3) at 0.05 level of significance.

## RESULTS AND ANALYSIS

**Research question 1:** To what extent does e-library used for teaching and learning predicts students' academic performance in Private secondary schools in Obio/Akpor LGA?

**Table-1: Simple Regression on the Extent E-Library Used for Teaching and Learning Predicts Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model	R	R Square	Adjusted R Square	Extent of prediction	Decision
1	.614 <sup>a</sup>	.377	.376	37.7%	Low extent

Decision rule: 100% - 75% (Very High Extent), 74% - 50% (High Extent), 49% - 25% (Low Extent) and 0% - 24% (Very Low Extent)

Table 1 revealed that the regression (R) and regression square ( $R^2$ ) coefficients are .614 and .377 respectively. The extent of prediction (coefficient of determinism) is 37.7% (.377  $\times$  100). The result showed that e-library used for teaching and learning to a low extent predicts students' academic performance in

Private secondary schools in Obio/Akpor LGA by 37.7%.

**Research question 2:** To what extent does personal phones used for teaching and learning predicts students' academic performance in Private secondary schools in Obio/Akpor LGA?

**Table-2: Simple Regression on the Extent Personal Phones Used For Teaching And Learning Predicts Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model	R	R Square	Adjusted R Square	Extent of prediction	Decision
1	.520 <sup>a</sup>	.270	.268	27%	Low Extent

Decision rule: 100% - 75% (Very High Extent), 74% - 50% (High Extent), 49% - 25% (Low Extent) and 0% - 24% (Very Low Extent)

Table-2 revealed that the regression (R) and regression square ( $R^2$ ) coefficients are .520 and .270 respectively. The extent of prediction (coefficient of determinism) is 27% (.270  $\times$  100). The result showed that personal phones used for teaching and learning to a

low extent predict students' academic performance in Private secondary schools in Obio/Akpor LGA by 27%.

**Research question 3:** To what extent does online social networking used for teaching and learning predicts students' academic performance in Private secondary schools in Obio/Akpor LGA?

**Table-3: Simple Regression on the Extent Online Social Networking Used for Teaching and Learning Predicts Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model	R	R Square	Adjusted R Square	Extent of prediction	Decision
1	.671 <sup>a</sup>	.450	.449	45%	Low extent

Decision rule: 100% - 75% (Very High Extent), 74% - 50% (High Extent), 49% - 25% (Low Extent) and 0% - 24% (Very Low Extent).

Table-3 revealed that the regression (R) and regression square ( $R^2$ ) coefficients are .671 and .450 respectively. The extent of prediction (coefficient of determinism) is 45% (.450  $\times$  100). The result showed that online social networking used for teaching and learning to a low extent predicts students' academic

performance in Private secondary schools in Obio/Akpor LGA by 45%.

### Test of Hypotheses

**Hypothesis 1:** E-library used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.

**Table-5: T-test Associated with Simple Regression on the Extent E-learning Significantly Predict Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model		Unstandardized Coefficients		Standardized Coefficients	T	P-value	Alpha level	Decision
		B	Std. Error	Beta				
1	(Constant)	5.857	1.641		3.570	.000		
	E-learning	.807	.047	.614	17.201	.000	0.05	Hypothesis is Rejected

**a. Dependent Variable: Students' Academic Performance**

Table 5 showed that the standard beta coefficient is .614 with t-test associated with simple regression value of 17.201. The hypothesis is rejected because the probability value of 0.00 is less than the alpha level of 0.05 ( $P < 0.05$ ). By implication, e-library used for teaching and learning significantly predicted

students' academic performance in Private secondary schools in Obio/Akpor LGA.

**Hypothesis 2:** Personal phones used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.

**Table-6: T-test Associated with Simple Regression on the Extent Personal Phones Significantly Predict Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model		Unstandardized Coefficients		Standardized Coefficients	T	P-value	Alpha level	Decision
		B	Std. Error	Beta				
1	(Constant)	9.974	1.790		5.572	.000		
	Personal Phones	.669	.050	.520	13.445	.000	0.05	Hypothesis is Rejected

**a. Dependent Variable: Students' Academic Performance**

Table-6 showed that the standard beta coefficient is .520 with t-test associated with simple regression value of 13.445. The hypothesis is rejected because the probability value of 0.00 is less than the alpha level of 0.05 ( $P < 0.05$ ). By implication, personal phones used for teaching and learning significantly

predicted students' academic performance in Private secondary schools in Obio/Akpor LGA.

**Hypothesis 3:** Online social networking used for teaching and learning does not significantly predict students' academic performance in Private secondary schools in Obio/Akpor LGA.

**Table-7: T-test Associated with Simple Regression on the Extent Online Social Networking Significantly Predict Students' Academic Performance in Private Secondary Schools in Obio/Akpor LGA.**

Model		Unstandardized Coefficients		Standardized Coefficients	T	P-value	Alpha level	Decision
		B	Std. Error	Beta				
1	(Constant)	3.368	1.537		2.192	.029		
	Online Social Networking	.872	.044	.671	20.000	.000	0.05	Hypothesis is Rejected

**a. Dependent Variable: Students' Academic Performance**

Table 7 showed that the standard beta coefficient is .671 with t-test associated with simple regression value of 20.000. The hypothesis is rejected because the probability value of 0.00 is less than the alpha level of 0.05 ( $P < 0.05$ ). By implication, online social networking used for teaching and learning significantly predicted students' academic performance in Private secondary schools in Obio/Akpor LGA.

secondary schools in Obio/Akpor LGA by 37.7%. Though, the hypothesis revealed that e-library used for teaching and learning significantly predicted students' academic performance in Private secondary schools in Obio/Akpor LGA. The finding of the present study revealed that students to a low extent are exposed to internet enable library (e-library) for learning and teaching. The best any private secondary school library can do for its students is to make available a well-connected Internet facility and teach them how to access it to retrieve information and other sundry sources (Onwubiko, 2004). Almaghlouth (2008) emphasized that, learning opportunities for everyone will improve and become more accessible and fun for all students, teachers, parents, schools, library

**DISCUSSION OF FINDINGS**

The first findings of this study revealed that e-library used for teaching and learning to a low extent predicts students' academic performance in Private

users, employees, etc. which is contrary to the present study where the use of e-library for teaching and learning to a low extent predict students' performance. Also, this present finding agrees with Hag, Cummings and Rea (2004) and Le Roy (2005) who noted that as the need for utilization of Internet in school library is inevitable in all spheres of life to improve the well-being of people and solve social problems as it helps to liberate the students from the bonds of educational entrenchment as well as quicken all learning activities.

The second finding of the study revealed that personal phones used for teaching and learning to a low extent predict students' academic performance in Private secondary schools in Obio/Akpor LGA by 27%. However, the hypothesis showed that personal phones used for teaching and learning significantly predicted students' academic performance in Private secondary schools in Obio/Akpor LGA. The finding is in tandem with Tella et al. (2011) who found that 65% of the students have access to the Internet through the use of Internet enabled mobile-phone to surf the Net. Though, the present study revealed that students may not have been always exposed to internet enable personal phones for learning and teaching which to a low extent have contributed to their performance. Nonetheless, the best any school can do for its pupils is to provide them with a well-connected Internet facility and teach them how to access it to retrieve information and other sundry sources (Onwubiko, 2004). Also, it must be stated that the brevity of the discussion is due to lack of studies in this area.

The third finding showed that online social networking used for teaching and learning to a low extent predicts students' academic performance in Private secondary schools in Obio/Akpor LGA by 45%. Also, the hypothesis revealed that online social networking used for teaching and learning significantly predicted students' academic performance in Private secondary schools in Obio/Akpor LGA. The finding is partly in consonance with Ukbebor (2010) who averred that Internet use by students at secondary school level is yet to be formerly recognized as a means of improving academic performances, because curriculum developers underestimate its importance at that level, students' problems are further compounded, as they do not have the full capacity to use the internet and understanding of the use of internet for academic purpose. The findings of the present study revealed that online social networking used for learning and teaching to a low extent contributes to students' academic performance. Consequently, private schools can ensure well-connected Internet facility for teacher and student and to teach them how to access it to retrieve information and other sundry sources (Onwubiko, 2004) especially as it concerns entrepreneurship with a

proper curriculum development to suit teaching and learning in this current age.

## CONCLUSION

Based on the findings of the study, it can be deduced that Internet facilities such as e-library, personal phones and online social networking used in teaching and learning to a low extent predict students' academic performance in private secondary schools in Obio/Akpor LGA of Rivers State, Nigeria.

## RECOMMENDATIONS

The following recommendations are put forward based on the findings.

1. E-library or ICT supported teaching and learning is a Government policy for delivery of quality education to Nigerians at all levels; and so, private school owners should intensify effort to implement this policy with all sincerity to enhance students' academic performance.
2. Private schools administrators should provide ICT literacy training programme particularly for teachers and students at all levels through workshops, seminar, and conferences to equip them with the necessary ways to use personal phones for teaching and learning so as to boost the performance of students.
3. The management of private schools of learning should enforce a change of attitude towards online social networking by making social networking skills a minimum requirement for learners and teachers. This will encourage effective use of online social networking for teaching and learning to enhance students' academic performance.

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