THE INTEGRATION OF INTERNET ACCESS TO THE LEARNING EXPERIENCE OF SECONDARY SCHOOL STUDENTS IN BENIN CITY, NIGERIA

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Abstract

The purpose of the research was to determine the factors affecting the integration of internet access to the learning experience of secondary school students in Benin City. Three research questions were raised to guide the study. The population of the study comprised twelve thousand two hundred and six (12,206) Senior Secondary School students in Oredo local government area of Edo state. The sample for the study comprised of two hundred and fifty three (253) Senior Secondary School students. A structured questionnaires titled: Factors affecting the integration of internet access to the learning experience of secondary school students in Edo State was used for data collection. The Cronbach's alpha reliability statistics was adopted to ascertain the reliability of the instrument which yielded a reliability coefficient of .721. Data were analyzed with mean and standard deviation. The study found out that majority of the students have access to the internet either through personal devices, their parent's or their sibling's smart phone. The students also agreed that lack of a computer laboratory, lack of a stable source of power supply, insufficient computers in the computer laboratory where computer Laboratory are available, lack of trained maintenance staff, and cost of maintenance of internet infrastructure among others were factors affecting the integration of internet access to the learning experience of secondary school students in Edo State. Based on the findings of the study, the following recommendations were made: that Provisions should be made for well- equipped computer laboratories in secondary schools, Provisions should be made for stable power supply among others.
Keywords: Integration, Internet and Learning

Introduction

Education can be seen as an endeavour or experience that has a developing effect on the mind, character as well as the physical abilities of an individual Biesta (2011). In today's world people are striving for equity and social justice, and education can be seen as the key to achieving it. The principles of education may relatively be the same but its methods and techniques have evolved over time. Today, almost everything we know runs on or is made by technological tools, which have eased the way we carry out our daily activities. The availability of these technological tools gives room for internet access (Kakkar, Ahuja, & Dahiya 2014).

Technology can be defined as the science of the application of knowledge to practical purposes (Mariam-Webster Dictionary, 2019). According to Mesthene (1970), technology can be seen as the organization of knowledge for the achievement of practical purposes. **Hughes (2004), defined technology as** a creativity process involving human ingenuity. These definitions and many others have proven the impact of technology in our daily lives. These technological tools will not be used effectively without the presence of the internet.

Many industries are taking advantage of the internet to make their various operations effective and efficient. In the banking and finance industries for example, Internet banking allows bank customers to perform routine bank transactions at anytime from anywhere without being physically present at the bank. In clinical settings, the internet enables care providers to gain rapid access to information that can aid in the diagnosis of health conditions or the development of suitable treatment plans and also create room for patient data management and remote transfer of data. It can make patient records, test results, and practice guidelines accessible from the examination room. In commerce, the Internet has made it possible for people to buy and sell goods and services without being in physical contact with each other. This is beneficial because a prospective buyer can get information about a product of interest and examine it virtually before making a purchase all from the comfort of his home. In communication, the internet has made it possible for people to stay in touch with friends or family living far away and it has even made it possible to make new friends without having to meet them in person. In education, the internet has allowed for greater accessibility to both human and material resources as well as provide unique innovative ways through which teaching and learning can take place therefore giving room for flexibility.

Spooner (2002) defines the internet as a global system of connected networks that consists of millions of computers, servers, routers, and printers on every network. All networked computers, digital gadgets and smartphones have common tools that enable them connect to the internet. This means of connection has created a

great impact on everyone in the way they communicate, share resources and interact.

According to Siraj et al (2015), the Internet is sometimes used as a supplementary learning material and has led to an improvement in student's academic performance. The internet has also created opportunities for active participation in learners, collaborative learning and educational material access for efficient and effective learning process.

The internet can be used to make the teaching and learning processes easier. E- learning for example can be used to eliminate the need for being physically present in the classroom to receive lectures, improve assessment of students. The internet can also be a valuable source of information to the students, as there is a variety of educational websites that offers knowledge in every field of human endeavour. There is virtually no information that cannot be found on it. This is very beneficial to the field of education because education involves learning and the internet can facilitate learning, if used effectively.

Despite the fact that the internet plays host to knowledge in all fields of human endeavour, the vast majority of Secondary schools in Benin City do not have internet access in their premises. This may be the reason students at this level have poor learning experiences. This paper is therefore to uncover the factors that are affecting the integration of internet access to the learning experience of secondary school students.

Research questions

1. Through what means do the students have access to the internet?
2. What are the factors that are hindering the integration of internet access to the learning experience of secondary school students in Benin City?
3. What are the benefits of integrating internet access to the learning experience of secondary school students in Benin City?

Methodology

Survey research design was adopted for this study. The population of the study included twelve thousand, two hundred and six (12,206) secondary school students in Oredo local government area, Edo State. The sampling technique was used select two hundred and fifty-three (253) students from five (5) secondary schools out of the thirteen (13) secondary schools in Oredo Local Government Area, Edo State. The instrument for data collection for this study was a Questionnaire titled "Integration of internet access Questionnaire (IIAQ)". The questionnaire had two sections A and B. Section A contained personal data of the respondents while section B contained questionnaire items which were based on the research questions to guide the study. The questionnaire was based on a 4- point rating scale with response options of Strongly Agree (SA) = 4 points, Agree

(A) = 3 points, Disagree (D) = 2 points, and Strongly Disagree (SD) = 1 point. In

order to ascertain the validity of the instrument, the questionnaire was given to three lecturers in the Department of Curriculum and Instructional Technology (C.I.T) to make necessary corrections thereby ensuring that the instrument collected and measured relevant data pertaining to the research questions. The reliability of the instrument was established using cronbach's alpha technique. The reliability coefficient was found at 0.721. This indicated that the instrument was reliable for the study. The researcher administered copies of the questionnaire in person to the students. The students were assured of confidentiality and urged to answer the question in all honesty. The administration exercise was done under normal classroom situation; the researcher waited to collect the copies of the instrument from the respondents. The Data generated from the research questionnaire were analyzed using mean and standard deviation. The mean value was accepted thus 4+3+2+1 divide by 4 =2.5. The decision rule was that any item with a mean score of 2.50 and above was regarded as Agree while items with less than 2.50 was considered Disagree.

Results

Research Question 1: Through what means do the students have access to the internet access?

Table 1: Means and standard of accessing the internet among students.

S/N	ITEMS	N Mean	SA Standard	A Deviation	D	Decision	SD	
1	I have access to the internet through my personal computer or smart device	253	117 46.2%	87 34.4%	41 16.2%	8 3.2%	3.2	.84 Agree
2	I have access to the internet through my parent's computer or smart device	253	97 38.3%	76 30.0%	70 27.7%	10 4.0%	3.0	.91 Agree
3	I have access to the internet through my sibling's smart phone or computer	253	38 15.0%	84 33.2%	87 34.4%	44 17.4%	2.5	.95 Agree

		N	SA	A	D	SD	Mean		Decision
4	I have access to the internet through the computers in a cyber café	253	33 13.0%	51 20.2%	99 39.1%	70 27.7%	2.1	.98	Disagree
5	I gain access to the internet through the computers in my community's library	253	21 8.3%	30 11.9%	91 36.0%	111 43.9%	1.8	.93	Disagree

Research question one seeks to determine through what means do the students have access to the internet. The data analyzed in table 1 reveals that out of the five items present, the students agreed to three of them which were items: one, two and three, representing sixty percent (60%) of the items, while the students disagreed to two items which were items four and five representing forty percent (40%) of the items.

Table 2: Factors hindering the integration of internet access to the learning experience of secondary school students in Benin City

S/N	ITEMS	N	SA	A	D	SD	Mean	Standard Deviation	Decision
a	Lack of a computer lab is a factor affecting the integration of internet access in your school	253	154 60.9%	73 28.9%	10 4.0%	16 6.3%	3.4	.84	Agree
b	Lack of a stable source of power supply is a factor affecting the integration of internet access in your school	253	140 55.3%	69 27.3%	29 11.5%	15 5.9%	3.3	.89	Agree

c Insufficient computers in your school's computer lab is a factor affecting the integration of internet access in your school	253	150 59.3%	59 23.3%	27 10.7%	17 6.7%	3.4	.92	Agree
d Lack of trained computer maintenance staff is a factor affecting the integration of internet access in your school	253	124 49.0%	85 33.6%	21 8.3%	23 9.1%4	3.2	.94	Agree
e Cost of maintenance of Internet infrastructure is a factor affecting the integration of internet access in your school	253	133 52.6%	74 29.2%	37 14.6%	94 3.64%	3.3	.85	Agree
f Ignorance of the potentials of the internet is a factor affecting the integration of internet access in your school	253	149 58.9%	73 28.9%	29 11.5%	2 0.8%	3.5	.73	Agree
g High cost of monthly data subscription is a factor affecting the integration if internet access in your school	253	103 40.7%	80 31.6%	30 11.9%	40 15.8%	2.9	1.1	Agree
h Student's lack of personal computers or smart device is a factor affecting the integration of internet access in your school	253	143 56.5%	57 22.5%	41 16.2%	12 4.7%	3.3	.91	Agree

Research question two sought to determine the factors that are hindering the integration of internet access to the learning experience of secondary school students in Benin City. The data analyzed in table 2 reveals that the students agreed to all of the items presented, representing hundred percent (100%) of the items.

Research Question 3: What are the benefits of integrating internet access to the learning experience of secondary school students in Benin City?

Table 3: Benefits of integrating internet access to the learning experience of secondary school students in Benin City.

S/N	ITEMS	N	SA	A	D	SD	Mean	Standard Deviation	Decision
1	Internet access makes it easier to do your assignments	253	178 70.4%	53 20.9%	19 7.5%	3 1.2%	3.6	.68	Agree
2	Internet access helps you gain knowledge that might not be in your textbooks	253	192 75.9%	43 17.0%	16 6.3%	2 0.8%	3.7	.63	Agree
3	Internet access makes it possible to watch educational videos and documentaries online	253	182. 71.9%	49 19.4%	22 8.7%	0 0.0%	3.6	.64	Agree
4	Internet access makes it possible to communicate with your class mates about school related work	253	180 71.1%	65 25.7%	8 3.2%	0 0.0%	3.7	.53	Agree
5	Internet access makes it possible to learn more about subjects taught in your class	253	173 68.4%	67 26.5%	13 5.1%	0 0.0%	3.6	.58	Agree

#	Item	N	SA	A	D	SD	Mean	SD	Remark
6	Internet access enables you to gain access to information from across the globe	253	181 71.5%	54 21.3%	16 6.3%	2 0.8%	3.6	.64	Agree
7	Internet access makes it possible for you to learn from anywhere	253	162 64.0%	74 29.2%	15 5.9%	2 0.8%	3.6	.64	Agree
8	Internet access makes it possible for you to gain access to information for free	253	112 44.3%	74 29.2%	44 17.4%	23 9.1%	3.0	.99	Agree
9	Internet access makes it possible for you to learn about cultures from other parts of the world	253	148 58.5%	88 34.8%	16 6.3%	1 0.4%	3.5	.63	Agree
1	The Internet can be used to conduct efficient online test and exams	253	146 57.7%	78 30.8%	11 4.3%	18 7.1%	3.4	.87	Agree
1	Online tests discourages cheating	253	76 30.0%	66 26.1%	38 15.0%	73 28.9%	2.6	1.2	Agree

Research question three seeks to determine the benefits of integrating internet access to the learning experience of secondary school students in Benin City. The data analyzed in table 3 reveals that the students agreed to all the eleven items presented, representing hundred percent (100%) of the items.

Discussion of Results

Based on the analysis done, the following findings were revealed:

Most of the students have mobile phones or personal computers that have internet access or their parents or siblings have mobile phones or personal computers with internet access. Cyber cafes and community libraries were the least used sources of internet enabled devices for the students.

It was found that lack of a computer laboratory, lack of a stable source of power supply, insufficient computers in the computer laboratory, lack of trained maintenance staff, cost maintenance of internet infrastructure, ignorance of the potentials of the internet, high cost of monthly data subscription, student's lack of personal computers or smart device were factors hindering the integration of internet access to the learning experience of secondary school students in Edo State.

Furthermore, it was revealed that internet access: makes it easier for the students to do their assignments, helps the students gain knowledge that might not be in their textbooks, makes it possible for the students to watch educational videos and documentaries online, makes it possible for the students to communicate with their class mates about school related work, makes it possible for the students to learn more about subjects taught in their class, enables students to gain access to information from across the globe, makes it possible for the students to learn from anywhere, makes it possible for students to gain access to information for free, makes it possible for students to learn about cultures from other parts of the world, the internet can be used to conduct efficient online test and examinations, and Online tests reduce cheating.

Conclusion

Based on the findings of the study, it was concluded that a majority of the students have access to the internet through their own, their parent's or their sibling's smart phone or personal computer. The students also agreed that lack of a computer lab, lack of a stable source of power supply, insufficient computers in the computer lab, lack of trained maintenance staff, cost of maintenance of internet infrastructure, ignorance of the potentials of the internet, high cost of monthly data subscription, student's lack of personal computers or smart device are some of the factors hindering the integration of internet access to the learning experience of secondary school students in Benin city. Also a majority of the students agreed that access to the internet has positive benefits for them.

Recommendations

In view of the findings and conclusions drawn from this study, the following recommendations were made.

- Provisions should be made for well-equipped computer labs in secondary schools.
- Provisions should be made for stable power supply, and backup generators or power source should be made available in case of power failure.
- Cost of data should be subsidized, or cheaper internet service should be provided for the students.
- Funds should be made available for the maintenance of internet infrastructure in secondary schools.
- Well trained maintenance staff should be provided.
- Smart phones or tablets with internet access restricted to educational content should be provided for the students for use at school during free periods.
- Online computer based tests should be done more frequently in order to discourage exam malpractice.

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