Assessing Internet Activities and Its Derived Benefits for Learning Among Secondary School Students in Ilorin South, Kwara State, Nigeria

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Abstract
This study was carried out to investigate students’ internet activities and its benefits on their learning outcomes in a secondary school in Ilorin South, Ilorin, Kwara state, Nigeria. The study adopted descriptive survey; three research questions were raised to guide the study. There were 256 students for the study sample and the instrument utilized was researchers’ designed questionnaire with 20 items. The statistical tools used for data analysis included frequency count, simple percentage and mean score. The findings showed that students utilized internet for playing games, watching movies and as a place that provides quality learning contents and best answers to their schoolwork among others. Furthermore, the findings indicated that students had many benefits from the internet such as, motivating them to go on adventure, found fun and able to solve many schoolwork/assignments. Based on the findings, the study recommends that students of secondary education should be encouraged to pay attention more to educative activities online than other activities, and get focused on their academics accordingly. The stakeholders in general and secondary school authority in particular should monitor well the activities students engage themselves with online.

Keywords: Assessment, Digital technology, Internet activities, Learning outcomes, Benefits

1. Introduction
Internet technology has come to stay at this 21st century and everyone both old and young is encouraged to buy into the new adventure; this is also known as digital technology. The Internet technology permeates every aspect of the economy and society; and it is fast becoming the language of transaction in all human endeavours. It is pertinent to know therefore, that developing countries are struggling to get attuned to this world order, as this technology brings considerable benefits to economy developments, educational system, job attainments and personal developments among others.

In educational sector, particularly for teachers and students in various schools, instructional activities are made possible online to enhance teachers’ delivery and educational attainments on the part of the students. More so, interactivities among students are sustained through the use of internet technology on one to one basis and or group, even with their teachers in confidentiality (Olanrewaju, Adeshina & Kareem, 2016). Also, internet technology is becoming an essential element of our students’ lives in all ladders of educational system. There are several activities one could easily be engaged with online to bring about positive impact on the development of ones’ education and personal social among others. However, as the internet technology has brought tremendous merits on the users, so also it might expose them to online risks. For instance, access to inappropriate contents, harmful interactions with other peers or with adults, and exposure to aggressive marketing practices are all potential disadvantages on internet activities. Students’ online activities may also put their computer systems at risk and disseminate their personal data without understanding the potential long-term privacy consequences. While many of these risks may be simply considered as the digital extension of existing offline threats to children, the measures that protect them against these risks are not always easy to effectively migrate to a virtual and global digital environment (OECD, 2012).

The internet is a global connectivity of network linking several other networks and electronically bringing millions of people together with the use of computers and smartphone worldwide. It could also be said to be that which helps people to demystify abstract ideas and concepts, pass information through a fast means across to one another and intensify acceleration of information to any location because of its ubiquitous nature. It is capable of bridging gaps by removing distance from various locations and a shared experience of happenings from far is brought very close to one in visual, audio and or video formats (Olanrewaju, et al, 2016). Livingstone (2015) stated that the network makes it possible for information stored in the major computers known as host to be accessible by other users irrespective of the distances separating them. The spread and or connectedness of production, communication and technologies across the world have involved the interlacing of economic and cultural activities globally. This requires any computer connected to the internet to link to other computer or the network and go through the files or pages of information, a process known as browsing the web. Hence, people get connected and are closer to one another. They have the opportunity to know one another better, to become aware of what is common among nations and might be able to unite them. Other things to consider are...
differences in culture and religion in order to achieve mutual understanding. With this technology, people have gradually come to realize the fact that we all live in one planet and should live together depending on one another, and helping one another (Livingstone, 2015).

Since the Internet technology is a world-wide broadcasting venture, it is a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers/smartphones without regard for geographic location. It has indeed reduced the world to a global village. It also has increase part of today’s global culture, especially for students’ schoolwork, chatting, messaging, online gaming and listening to music in audios/videos among the most popular engagements (Luke, 2016; Olanrewaju, et al, 2016; Lauri, Borg, & Farrugia, 2015; Livingstone, 2015). However, the lack of common agreement about the right approach to educating and protecting students adds further challenges to their online experience and expression. Students go on online frequently nowadays in order to use the internet for several purposes. These include learning: accessing information, knowledge, opinions, educational tools, and even interacting with their teachers. Also, they communicate by expressing ideas, share information and experiences online freely. They interact socially with friends and peers; innovate, create and share contents; and play in order to be entertained through games, movies and music among others (Olanrewaju & Odewumi, 2017; Omiola, Olanrewaju & Olonikawu, 2016; Helsper, vanDeursen, & Eynon, 2015; Hitti, 2006).

Access to educational information is a vital key for learning outcomes of students. With the advent of internet, students acquire additional source for getting information along with the library of the school. Today, it is an understatement to say that there is revolution and rush in digital sphere, regarding internet globally. This global revolutionary rush in internet is becoming increasingly interesting and better integrated in educational enterprise in particular (Olanrewaju & Odewumi, 2018; Olanrewaju, et al, 2016; Khannanov 2003). Stakeholders, particularly parents and educators often face difficulties in keeping abreast of and utilization of internet technologies, but their children known as digital native have a natural appetite for online activities, driving the widespread adoption of instant messaging, blogs and social networking (Lauri, et al, 2015; Livingstone, 2015; Prensky, 2001).

In a study carried out on the EU Kids Online activities, it was identified that there was a complex array of online opportunities and risks to children’s internet use. Interestingly, the risks of concern to children often are not those that lead to adult anxiety. Also, it appears that the more students go online to gain the benefits, the more they may encounter risks, accidentally or deliberately. Risks may arise when children are sophisticated, confident or experimental internet users. They can be termed as high users and high risks takers. In other words, with current happenings, these terms could be seen as using internet innovatively and innovative risks takers. These students gain internet access in advance of an infrastructure of awareness-raising, parental understanding, regulation and safety protection (Luke, 2016; Omiola, et al, 2016; Livingstone, Haddon, Gorzig & Olafsson, 2011; Huang, Leopard & Brockman, 2009; Janis, 2006; Strom, & Strom, 2005).

Strom and Strom (2005) noted that the adults generally use technology only as a tool but adolescents consider technology to be more inclusive, such as text messaging for diverse information, chat rooms and to being an essential part of their social life. Mitchell, Finkelhor and Wolak (2005) noted that Internet uses by youth age 12 to 17 increased from 73% in 2000 to 87% in 2005. Researchers have concluded that the rapid growth of online sexual exploitation of students can be linked to increased internet accessibility and anonymity, commercialization of exploitative media, and digitization in the production and dissemination of images. Also, that despite legislative initiatives intended to keep pace with the incidence of this type of crime against students, the nature and distribution of teenager pornography, as well as the characteristics of offenders and victims alike, have remained similar over time and across a wide sample of studies (Livingstone, et al, 2011; Luke, 2016; Huang, et al, 2009; Janis, 2006; Strom, & Strom, 2005).

As posited by Internet Society at 20 (2010) that students visit online frequently and learn by accessing information, knowledge, opinions, educational tools, and even their teachers. The students communicate by expressing ideas, share information and experiences online without stress; interact socially with friends and peers. Also, they create and share contents; and play in order to be entertained through games, movies and music among others. Therefore, this study sought to examine the types of activities students engage themselves with online and whether or not they have benefits from their internet experiences.

1.2 Statement of the problem

The internet technology has come to stay at this 21st century, otherwise known as digital technology. This technology is seen as world-wide broadcasting venture, a mechanism for information dissemination, a medium for collaboration and interaction between individuals and their computers without regard for geographic location. The increasing part of today’s culture, especially for students whom schoolwork, online gaming, and social networking are among the most popular activities they engaged online.

Students go online frequently nowadays in order to use the internet for several purposes. Incredibly, the students fancied all these activities outside the home and school experiences. Why? The activities on the internet
take the better part of the students’ time while adventuring online with their smart phones and or tablets. A great burden on students’ internet utilization is the lack of common agreement about the right approach to educating and protecting their activities online; and these issues constitute the problem of effective utilization of the technology by this group of learners. Will there be an agreement to setting appropriate approaches to educating and protecting students’ online activities? When will the policies be set and by whom or which body? Many questions are to be answered on internet activities engagement by students. To the knowledge of the researchers, no study within the country with particular reference to Kwara state had been conducted to find out secondary education students’ internet activities regarding learning outcomes and benefits they derive from their online experiences. Therefore, it is pertinent to investigate secondary education students’ internet activities and its benefits on their learning outcomes.

2. Purpose of the study
The study examined students’ internet activities and benefits on their learning outcomes. Specifically, the study sought to
1. Determine secondary students’ internet activities
2. Examine derived benefits from the use of the internet by students
3. Assess students’ learning outcomes with the use of the internet

2.1 Research questions
The following research questions were raised to guide the study.
1. What are the activities of secondary students on the internet?
2. Are there derivable benefits for students’ use of the internet?
3. What are the learning outcomes for students’ utilizing the internet?

3. Methodology
This study was a descriptive type of survey research. The population comprised all students in Ilorin South Secondary School in Ilorin, Kwara state, Nigeria. Purposive sampling technique was used to select one school and the target population was 1,556 students; for the secondary school had accepted internet technology for instructional activities. Also, purposive sampling method was used to select senior secondary two (SS2) students for the study; the SS2 class had four arms with target population of 260 students. A structured questionnaire designed by the researchers was used for data collection. The questionnaire consisted of twenty items grouped into sections based on the three research questions. A total of 260 copies of the questionnaire were administered to the students by the researchers and immediately the entire questionnaire copies were completely retrieved for onward analysis. From the entire filled and returned copies of the questionnaire, four were not properly filled due to some omissions by the respondents; and were filtered out of the usable ones. Therefore, a total of 256 copies of the questionnaire were found usable; hence, the sample for the study. Frequency count, simple percentage and mean score were used as statistical tools to analyse the data.

4. Results
Data were analysed and results presented hereunder.

Research question 1: What are the activities of secondary students on the internet?

Table 1: Secondary students’ activities on the internet

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I chat on social networks</td>
<td>201(78.52)</td>
<td>49(19.14)</td>
<td>4(1.56)</td>
<td>2(0.78)</td>
<td>3.76</td>
</tr>
<tr>
<td>2.</td>
<td>I watch videos online</td>
<td>199(77.73)</td>
<td>48(18.75)</td>
<td>3(1.17)</td>
<td>6(2.34)</td>
<td>3.72</td>
</tr>
<tr>
<td>3.</td>
<td>I post photos on social networks</td>
<td>196(76.56)</td>
<td>30(11.72)</td>
<td>21(8.20)</td>
<td>9(3.52)</td>
<td>3.61</td>
</tr>
<tr>
<td>4.</td>
<td>I download audio music online</td>
<td>160(62.50)</td>
<td>42(16.41)</td>
<td>16(6.25)</td>
<td>38(14.84)</td>
<td>3.27</td>
</tr>
<tr>
<td>5.</td>
<td>I play games on the internet</td>
<td>152(59.38)</td>
<td>38(14.84)</td>
<td>36(14.06)</td>
<td>30(11.72)</td>
<td>3.22</td>
</tr>
<tr>
<td>6.</td>
<td>I download video songs online</td>
<td>162(63.28)</td>
<td>42(16.41)</td>
<td>41(16.02)</td>
<td>11(4.30)</td>
<td>3.39</td>
</tr>
<tr>
<td>7.</td>
<td>I go online to do schoolwork</td>
<td>200(78.12)</td>
<td>44(17.19)</td>
<td>10(3.91)</td>
<td>2(0.78)</td>
<td>3.81</td>
</tr>
</tbody>
</table>

Table 1 reveals that 97.66% of the respondents chatted on social networks, while 2.34% did not. Out of the study sample, 96.48% of them watched video on internet, but 3.52% did not. The table further revealed that 88.28% of the respondents posted photos on social media; while 11.72% did not do such. From the respondents, 78.91% downloaded audio music on the internet; while 21.09% did not. The table also showed that 74.22% of the respondents played games on the internet, but 25.78% of them declined playing games on the internet. Also, 79.69% of them downloaded video songs online, but 20.32% declined; and 95.31% went online to do schoolwork (assignments), while 4.69% did not. On the scale of four, the average score revealed items responded to as being well above three in all cases; the least was 3.22, while the highest was 3.81 for item numbers five and seven respectively.
Table 2: Compressed responses on activities of students on the internet

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>X</th>
<th>X%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>256</td>
<td>1270</td>
<td>293</td>
<td>131</td>
<td>98</td>
<td>6317</td>
<td>3.54</td>
<td>89</td>
</tr>
</tbody>
</table>

The data presented in table 2 revealed grand mean score of the study sample to be 3.54 representing 89% in the seven internet activities listed.

**Research question 2:** Are there derivable benefits for students’ use of the internet?

Table 3: Students’ derivable benefits from the use of the internet

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I learn from educational information on the internet</td>
<td>200(78.12)</td>
<td>44(17.19)</td>
<td>10(3.91)</td>
<td>2(0.78)</td>
<td>3.81</td>
</tr>
<tr>
<td>2.</td>
<td>I enjoy social chatting with my friends and peers online</td>
<td>201(78.52)</td>
<td>50(19.53)</td>
<td>3(1.17)</td>
<td>2(0.78)</td>
<td>3.76</td>
</tr>
<tr>
<td>3.</td>
<td>I feel happy listening to audio music online</td>
<td>200(78.12)</td>
<td>40(15.63)</td>
<td>6(2.34)</td>
<td>10(3.91)</td>
<td>3.68</td>
</tr>
<tr>
<td>4.</td>
<td>I am motivated playing games on the internet</td>
<td>156(60.94)</td>
<td>34(13.28)</td>
<td>36(14.06)</td>
<td>30(11.72)</td>
<td>3.23</td>
</tr>
<tr>
<td>5.</td>
<td>Watching movies online improve my creative ability</td>
<td>152(59.38)</td>
<td>38(14.84)</td>
<td>36(14.06)</td>
<td>30(11.72)</td>
<td>3.22</td>
</tr>
</tbody>
</table>

Table 3 reveals that 95.31% of the respondents learnt from educational information on the internet; while 4.69% did not. From the sample, 98.05% of them enjoyed chatting socially with friends and peers, while 1.95% declined; and 93.75% of them responded to feel happy listening to audio music online, while 6.25% did not. Out of the respondents, 74.22% were motivated playing games online; while 25.78% of them were not motivated. From the sample, 74.22% of them had their creative ability improved watching movies on the internet, while 25.78% declined. However, when put on average, the mean scores for the five items listed were well above three in all cases; the least was 3.22 and highest was 3.81. Thus, this indicated that overwhelming majority of the students benefited from the internet. This resulted to a very high usage of internet by students.

Table 4: Compressed responses on internet benefits to students

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>X</th>
<th>X%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>256</td>
<td>909</td>
<td>206</td>
<td>91</td>
<td>74</td>
<td>4510</td>
<td>3.52</td>
<td>88</td>
</tr>
</tbody>
</table>

The data presented in table 4 revealed the grand mean score of 88% for the respondents which showed that they benefited from the activities on the internet. The mean of means score of the sample is 3.52 from the scale of four. This indicated multiple benefits in the usage of the internet by the students.

**Research question 3:** What are the learning outcomes for students’ utilizing the internet?

Table 5: Learning outcomes of students’ utilization of the internet

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Internet surfing motivates me to read</td>
<td>168(65.63)</td>
<td>32(12.50)</td>
<td>21(8.20)</td>
<td>35(13.67)</td>
<td>3.30</td>
</tr>
<tr>
<td>2.</td>
<td>I use internet for my schoolwork</td>
<td>171(66.80)</td>
<td>11(4.30)</td>
<td>24(9.38)</td>
<td>50(19.53)</td>
<td>3.18</td>
</tr>
<tr>
<td>3.</td>
<td>I use internet to share information with my classmates</td>
<td>160(62.50)</td>
<td>31(12.11)</td>
<td>25(9.77)</td>
<td>40(15.63)</td>
<td>3.22</td>
</tr>
<tr>
<td>4.</td>
<td>Books I read from the internet boost my understanding</td>
<td>180(70.31)</td>
<td>22(8.59)</td>
<td>34(13.28)</td>
<td>20(7.81)</td>
<td>3.42</td>
</tr>
<tr>
<td>5.</td>
<td>Internet does not affect my learning outcomes negatively</td>
<td>97(37.89)</td>
<td>35(13.67)</td>
<td>64(25)</td>
<td>60(23.44)</td>
<td>2.66</td>
</tr>
<tr>
<td>6.</td>
<td>I remember quickly what I read online</td>
<td>90(35.16)</td>
<td>76(29.69)</td>
<td>45(17.58)</td>
<td>45(17.58)</td>
<td>2.82</td>
</tr>
<tr>
<td>7.</td>
<td>I am more organised using online guidance</td>
<td>122(47.66)</td>
<td>62(24.22)</td>
<td>31(12.11)</td>
<td>41(16.02)</td>
<td>3.04</td>
</tr>
<tr>
<td>8.</td>
<td>Abstract concepts in class become real online</td>
<td>168(65.63)</td>
<td>28(10.94)</td>
<td>40(15.63)</td>
<td>20(7.81)</td>
<td>3.34</td>
</tr>
</tbody>
</table>

Table 5 reveals students who were motivated to read with the use of the internet and they polled 78.13% of the respondents. From the respondents, 71.10% used internet for their schoolwork; while 74.61% used the internet to share information with their classmates. From the sample, 78.90% of them enhanced their understanding via books that they read from the internet. From the respondents, 51.56% agreed to the fact that abstract concepts in class become real online. Also, 71.88% of the respondents were more organised using online guidance; while 76.57% of them found abstract concepts in class become real online. However, the mean score of all items in this section was more than half in all cases from the scale of four; the least was 2.66, while the highest was 3.42 for items five and four respectively.

Table 6: Compressed responses of secondary students’ learning outcomes for utilising internet

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
<th>X</th>
<th>X%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>256</td>
<td>1156</td>
<td>297</td>
<td>284</td>
<td>311</td>
<td>6394</td>
<td>3.12</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 6 revealed grand mean score from the study as 3.12 translating to 78%. This indicated that the use of the internet by the secondary students of the study affected learning outcomes very positively.

### 4.1 Summary of findings

The following findings were made after the analysis of the data. It was found that:

1. Students accessed internet and experienced a great deal as a place of learning, information and entertainment. For instance, they access social networks, watch videos, post photos, video or songs on
social networks, downloading music or videos and playing games, and so forth.

2. Students benefited immensely from the internet in several ways such as accessing information, interacting socially with friends and peers, sharing information, playing games and watching movies. More importantly, as a place that provides best answers to their schoolwork, among others.

3. The students agreed that activities on the internet affected their learning outcomes well and motivated most of the students to read and solve their school tasks; and that it aided their understanding on schoolwork. They were able to share educative information with classmates and interact with their teachers; they remembered what they learnt online quickly; they were more organised using online guidance and abstract concepts in the classroom became real to them online. Hence, students’ activities online positively increased their learning outcomes.

4.2 Discussion of findings
From the findings, it was revealed that majority of the students were engaged in online activities that were very helpful to them regarding accessing educational information, watching movies and playing games. Others are, posting pictures, videos and downloading of music, doing assignments and that the experiences enhanced their understanding when given difficult tasks. It also helped to reduce social disparity between students, since they sometimes worked in team on the internet. Students also assumed responsibility when they used internet to organize their schoolwork. The finding revealed that students engaged themselves well on the internet as they polled a very high grand mean score of 89%, this indicated that overwhelming majority of the students engaged themselves well on the internet. Though, the result showed positive diverse activities relating to learning outcomes, it should still be monitored properly by parents, guidance and teachers; and to be checkmated from time to time, in order to rid students of indecent practices online. The finding of this study corroborated to the works done by Lauri, et al (2015) and Livingstone, (2015) that several activities were carried out online by students to affect their learning outcomes positively.

Another finding of this study revealed that the students benefited immensely from the activities they engaged online. It was also revealed that students had positive multiple benefits from the internet with a grand mean score response of 88% from the respondents. This is an indication that the more students have access to the internet technology, the more likely they are to benefit therein. When students access internet more often, there is the likelihood that their learning outcomes might possibly be enhanced with more benefits accruing to them; and they could show more positive usage to the internet. The finding corroborated to the works of Helsper, et al (2015) and Lauri, et al (2015).

Furthermore, finding revealed students’ agreement that internet activities affected their learning outcomes well with a grand mean of 78%. They responded that the internet technology affected their learning outcomes positively by motivating them to read, helping in solving their school assignments and sharing educative information with classmates and peers. Other ways in which the internet had affected their learning outcomes were through reading books online, abstract concepts becoming real, were more organised using online guidance and they remembered quickly what they learnt using the internet. Hence, students agreed that the technology affected their learning outcomes positively. This finding of the study is in line with the works of Helsper, et al (2015), Lauri, et al (2015) and Hitti, (2006).

5. Conclusion
The acceptance as well as the use of internet technology has come to stay; and it is changing the face of all sectors. Specifically, in education where teaching, learning and researches are done, it should be embraced with both hands and be used to revolutionize the industry. Students of 21st century cannot be left behind or afford to take the rear seat in the enterprise, this is because they are considered as native of digital technology; and so, they can be catalyst to evolve great developments in all spheres. The accessibility of online activities by all categories of learners should be encouraged and the technology be integrated well into classroom situations; and students in the developing countries generally and particularly secondary students, be made to use internet to enhance their learning outcomes.

Therefore, all stakeholders: teachers, parents, guidance and government among others should encourage and monitor students on internet usage properly and enact right policies for online activities. When all these are put in place, it might bring about pleasurable, stress free interactivities online with enhancement of learning outcomes and other benefits in focus among students.

5.1 Recommendations
From the findings and conclusion of this study, the following recommendations were made. That:

1. Students should be encouraged by teachers and parents to spend quality time engaging online with useful things that lead to self-development, and always access educational information all the time online to improve their learning outcomes specially.
2. School authorities should integrate more of classroom experiences into online activities and monitor what the students’ access on the internet. There should be multiple online assignments and in diverse subjects to get the students involving, up and doing.

3. Government, policy makers and curriculum planners respectively should make appropriate policies and plan curriculum that will be internet engaging for secondary education, help students and teachers go online with industry of seeking for knowledge, and always be engaged with educative contents and only those things that will contribute to their progress in life.

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