INFLUENCE OF INTERNET UTILISATION AND ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN IJEBU-ODE, OGUN STATE, NIGERIA

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Abstract

Internet holds a great promise for humanity and indeed for academic performance of students. It is a known tool for learning and can guarantee universal access to quality education. The study examined the influence of Internet utilisation on academic performance of secondary school students in Ijebu-Ode, Ogun State, Nigeria. The study is a survey with SSS1 and 2 students as subjects; using multi-stage sampling, 310 secondary schools students from ten selected public and private secondary schools formed the study sample. Questionnaire with reliability value 0.70 was used to gather data for the study. The data collected was analyzed using the Pearson Product Moment Correlation test, mean and standard deviation. The results reveal that internet use has great benefits for students in school work and in class assignments; most students spend more time on chatting, downloading of documents and watching of videos than any other activity. The use of the internet by the students was found to positively influence their academic performance (r = -0.157; p<0.05). The study concludes that the Internet is critical to modern life and learning and that schools need to direct policy and practices in fostering technology use. The study recommends awareness campaigns, regulations to guide the extent of internet usage and responsible use through training and seminars for students and teachers

Keywords: Internet utilization, Academic performance, Internet use influence, Secondary school students, Nigeria

Introduction

Internet plays an important role in higher education; in institutions of higher learning, organisations and society at large. This reality justifies the information revolution that has taken place across the world. The prevalent use of technology today has drastically changed the way things are done, most especially work in institutions of higher learning where the teaching and learning process requires continuous development and effective improvement. The term "internet" according to Cawkell (2002) cited in Ogedebe (2012) is a large interconnected computer network, and it supports a whole range of services such as electronic, file transfer protocol, database access and many others. It is therefore not surprising the success story behind the advent of internet. That is why today, the internet has linked thousands of nations and enterprises across the world. Hence, the world which appears physically large has been made to be small by internet and referred to as a "global village". Since the internet is an essential tool that facilitates academic activities in institutions of higher learning in Nigeria, for decades now, the managers of those institutions of learning have invested greatly in internet connectivity, ensuring internet services in their institutions (Jibrin, Musa and Shittu, 2017). The internet services provided have had a major impact on the institutions generally and on teaching and learning activities (Jibrin, Musa and Shittu, 2017). Internet has made computers across the globe interconnected and it represents the greatest collection of human knowledge ever assembled, and has been widely used by students and their teachers for teaching and learning. As it has been noted that the internet has impacted the way teachers teach and the way students learn and engage in academic work; internet access and use among secondary school students seem to have contributed positively to their academic work and improvement in their final grades.

The internet is a global network of computers linked together over large distance. Olatokun (2008) emphasized that internet in education has been used as a tool for teachers and

researchers to communicate and try share their research data. Worldwide, the internet has opened myriad of new opportunities for students. In reality, it has brought a very open approach to learning where students are no longer depending on their instructors or textbooks as their only sources of information. According to Tarimo (2017), internet allows cost effectiveness in accessing and using both teaching and learning information resources, also for collaborative and distance education tools more than before. The internet has countless websites to help teachers develop or improve lesson plans, exchange ideas and obtain information which ultimately may improve their teaching skills. Bernard and Dulle (2008) noted that limited volume of relevant information resources in many substandard school libraries lead to poor academic performance of students. However, with internet, students are not any more limited to what is in their weak and dilapidated libraries; they may not wait for information resources to be brought into their libraries as they reach out to access knowledge at their own time and pace. As a result, the internet widens the horizon of students in terms of information searching and access. The effective usage of internet services in secondary schools gives additional reading and learning opportunities for students, which as a result improves and supports students' academic performance (Olatokun, 2008).

Specifically, the internet is a valuable source of information for students looking for information for projects and assignments. According to Ureigho, Oroke and Ekruyota (2006), with over 50 million websites on the net, the chances to access required information however obscure, is enhanced. The tools required to find this information would be some patience, connectivity and a decent search engine. This access would serve as a useful gateway to teachers in helping to prepare lesson plans; there are a number of sites dedicated to providing educational materials to teachers. It will also serve as a forum to promote group discussion which is time and distance independent. These can be done through video conferencing tools. There are numerous

benefits for teachers and students in using the internet as an educational tool, although to first time users, the internet can be a very unfriendly environment but with frequent use users can get familiar with it pretty quickly (McQuail, 2005).

Students' academic performance could be affected by several factors which include students' learning skills, parental background, peer influence, teachers' quality, learning infrastructure among others while government efforts to improve academic performance have led to series of interventions like scholarship, training of the teachers, providing of infrastructure and so on. Socio-economic status like parents' education, occupation, income and standard of living have been known to be related to students' outcomes, such that students from middle to upper class families tend to outperform those from less advantaged background (Simon, 2004). A parent's interest and encouragement in a child's education can affect the child's attitude towards school. According to Comer (2006), parents' interest in, and support of their children help reinforce students' sense of belonging to school and their identification with teachers and other school personnel. Clark (2003) also noted that parent–initiated contacts with their children's school help strengthen students' identification with teachers. In examining the interaction among parental involvement, teacher's support and students' sense of belonging to school, students whose parents are involved in their school activities are better able to take advantage of the benefits of supportive teachers or school environments for their academic performance.

In terms of Internet access, studies have shown that the younger generations in comparison with the older generations, are more positively inclined towards internet use and utilization. Loges and Jung (2001) demonstrated a significant difference between old and young Americans in terms of Internet access and that there is a tendency for the younger groups to pursue a more narrow range of personal ambitions. Aside age, there are other factors that affect Internet access and connectivity, such as; inadequate communication infrastructure, poverty,

relatively high cost of equipment, lack of government interest and problem of technical know-how (Adomi, 2005; Achimugu, Oluwagbemi, Oluwaranti and Afolabi, 2009). To the internet users including students and their teachers, the internet is a global community-one with a very active life. In today world, the internet plays a vital role in the teaching, research and learning processes in academic institutions. Thus, the advent of the internet has heralded the emergence of a new form of knowledge production and distribution of the soft form. This new form of information resources have as their greatest advantage, a virtually unlimited wealth of information resources which is widely readily available and accessible to hundreds of millions of people simultaneously in many parts of the world (Oghenetega et al, 2014). In addition, Amaoge and Igwebuike (2016) believed that the internet has increasingly become an invariable asset in education in terms of learning, teaching and research.

Statement of the Problem

Academic performance which is measured by examination results is one of the major concerns of a school. In reality, schools are founded with the motive of imparting knowledge and skills to those who pass through them and that the amount of knowledge and skills acquired by those students is commensurate with their academic performance. Internet is one of the best inventions in the history of mankind but the educational sector is seeing both the good and bad side of the internet. The bad side could be seen in the areas where students spend several hours on the internet doing things that may not improve their academic performance. In many instances, this seems to be the reality of today secondary school students who love technology and seem to use them for other reasons other than learning. Without mincing words, a lot of factors have been attributed to the poor performance of students in internal and external Examinations. Basically, the mass failure of students in both internal and external examinations can be as a result of numerous factors which include teacher factors, parent factors, student

factors and environmental factors. However, this study rests on the assumption that poor academic performance of secondary school students could be traced to irresponsible use of the internet. It is against this background that the study investigates the impact of Internet use on the academic performance of secondary students in Ijebu-Ode, Ogun State.

Objectives of the Study

The broad objective of this study was to examine the effect of internet usage on the academic performance of secondary school students in Ijebu-Ode, Ogun State, Nigeria. The specific objectives are:

i.   to identify the benefits of internet use among senior secondary school students;

ii. to investigate the time spent on the internet by senior secondary school students; and

iii. to examine the influence of internet use on academic performance of senior secondary school students.

Hypothesis

Use of internet will not significantly influence the academic performance of senior secondary school students.

Literature Review

The Concept Internet and its Uses

The Internet is a global computer-based information system composed of many interconnected computer networks. Each network may link tens, hundreds, or even thousands of computers, enabling them to share information and processing power. The Internet has made it possible for people all over the world to communicate with one another effectively and inexpensively (Encarta, 2009). Drawing from early work of Ersoy and Yaşar (2003) cited in Tutkun (2011), the internet can be described as the net of connections that covers the entire world. Using computers and the internet have become an indispensable part of daily life. Based on usability, Kilic and Karaaslan (2004) cited in Tutkun (2011) was of the view that the internet

produces desired information easily and smoothly. In concomitant to internet use, the term "internet access" refers to the communication between a residence or a business and an internet service provider that connects to the Internet. However, in this paper, Internet access refers to students' access to internet connectivity via personal computers, laptops, tablets or smartphones in such a way that the student is able to obtain information from the internet.

It is obvious from literature that Information and Communication Technologies (ICTs) used to acquire knowledge have had a significant effect on the development of human beings during the second half of the twentieth century. For this reason, the 21st century is often referred to as the "knowledge society", "knowledge period" or "knowledge revolution" (Tutkun, 2011). The innovation has led to the greatest changes in the way teachers teach and students learn via innovative educational technologies. Innovative ICTs have had major effects throughout all fields of studies, exclusively in education. In the 1980s, with the sudden proliferation of personal computers, the viewpoint that using ICTs during the teaching-learning process would improve the quality of education (Machumu and Kisanga, 2014) and solve problems became widespread (IBE, 1997) cited in Tutkun (2011). However, the recent introduction of third and fourth generation (3G, 4G and 5G) mobile services and wireless broadband networks is boosting the internet sector. The internet offers interminable choices of information available to all and has become a symbol of change which affects the education process by offering an alternative, creative learning method (İsman, 2014).

In recent years, there has been a growing interest to know how computers and the internet can be best utilized to improve the effectiveness and efficiency of the teaching and learning processes in both formal and non-formal settings. As there is a shift of theories explaining learning processes, ICTs become a handmaiden for learning activities at all levels of education. In developing countries, the central concern to educators interested in using the internet for learning has been 'what do people learn from the internet'? The study of literature suggests that

the content of media such as television and the internet as well can have four broad types of effects on people including behaviours and attitudes, beliefs and values, knowledge and cognitive skills (Moeller, 1996; Mazzuki, 2010; Kikwa, 2010; Mahumbwe, 2012).

Internet usage

The internet is presently being used as a source of teaching and learning materials. Most private and some public secondary schools in Tanzania have computer labs used for teaching and learning. However, very few computer labs are connected to the internet. Alternatively, teachers and students use their mobile phones to access internet services for academic work. Aboderin, Fadare, Kumuyi and Lawal (2011) argue that the introduction of the computer into our classrooms will assist in solving educational problems and enhance students' achievement. In Turkey, for example, most university students at the graduate level (87.5%) use the internet (TUİK, 2009), while 82% of these cannot bear the thought of daily life without access to the internet (Egitişim Career Institute, 2010). The internet, in particular, has provided people especially students with a foundation for meeting their information needs (Christopher & Gorreti, 2012). Many private schools can boast of computer laboratories, but only few can pride themselves on internet access. The internet has come to befriend, dwell with, and live beyond, both, the teacher and the student (ibid).

However, the use of the internet has been known to have a number of advantages as for example, Oral (2004) as cited in Tutkun, (2011), maintain that providing information and communication technologies for teaching-learning processes will have some advantages: students will play a more active role, discussions of topics will contain more detail, students will become more independent, communication between students and teachers will become level and direct, students will easily process new student-based education material, student skills will increase, and the hierarchical structure between teachers and students will be more flexible. It is also known that students will also be able to access information pertaining to their subjects and

activities from different sources quickly and without difficulty (Taspinar and Gumuş, 2005), and will be able to evaluate these sources and synthesize them. In his study, Tutkun (2011) observed that female students use the internet in a more functional sense than male students. Several studies reveal that students using ICT facilities mostly show higher learning gains than those who do not. For instance, studies in the United States showed that students who used computer tutorials in Mathematics, natural sciences and social sciences scored significantly higher in test on these subjects (Dietrichson, Bog, Filges, Jørgensen, 2016). The findings also indicated that primary school students who used the tutorial software in reading scored significantly higher in reading. In developing countries, significant barriers have been identified and often referred to as "the digital divide"-that limits the ability of some countries to take advantage of technological developments. Access is chief among them.

Similarly, apart from internet usage being an obvious challenge in developing countries, initiatives have been made to improve and reform education, challenges related to teacher preparation, curriculum, pedagogy and assessment associated with ICT and internet uses. For example, a newly established Halotel mobile company under its corporate social responsibility project donated 19 computers connected to internet that are used by students to carry out their private studies (Mami and Hatami-Zad, 2014). The firm has pledged to connect 450 public schools to the internet. As of current, Lugoba secondary schools enjoy a computer lab connected with internet. However, the internet has many advantages to students, teachers and other users as discussed by various scholars. But the question remains, do our students utilize these advantages to their fullest or do they use the internet for matters that are not really beneficial to them? This paper examines the use of internet among secondary school students and its effects on their learning.

Influence of Internet Usage among Secondary School Students

In the 90s debates on the effects of the internet use among secondary schools, students were the business of the day. In some parts of the world, parents, teachers and communities at large were against the uses of the Internet in schools. The move against the use of the Internet in schools was triggered off by the assumptions that the technologies were new to teachers, lack of know-how among teachers increased tension against internet use and also parents were against additional cost related to accessing the internet itself. However, the use of the Internet among school students whether at home or school increased dramatically. High computer, smartphones ownership and household Internet connectivity rates have increased Internet use among secondary school students (Chen, Hsiao, Chern & Chen, 2014). It should be noted that students' internet use includes activities related to schoolwork as well as more general activities. Internet-based activities in schools may have several impacts on students life at school and thereafter. Studies have reported that it has either a negative influence or no significant influence on student learning performance or other outcomes (Davis, 2001; Kandell, 1998; Odaci, 2011; Odaci & Kalkan, 2010; Widyanto & Griffiths, 2006).Young (2011) suggested that excessive internet usage among students have negative effects on students' academic success.

However, another study by Odaci (2011) found that there is no statistically significant relationship between problematic internet use and academic procrastination. Many factors inform the inconsistency of the results; these include generational factors, generational differences, the available applications, the Internet usage tasks and the research tools used (Chen, Hsiao, Chern and Chen, 2014). That is, not all internet usage is of benefit to students and all people all the time, For example, pornography use and excessive chat among secondary school students have relatively negative effects on their academic success and life after schools. According to both access to and use of, the computer and the internet are heavily stratified by educational level, income, age, gender and minority status (Fuchs & Woessmann, 2004; Kuhlemeier and Hemker, 2007). In a nutshell, the Internet is used in daily life in the educational settings; as a result, its

usage among secondary school students should be used appropriately so as to yield academic success. If secondary-education teachers are to tailor their instruction to the needs of all students, they need to develop an understanding of the extent to which incoming students have access to and make use of internet at home (Downes, 2009) and they need to familiarise themselves with the digital skills students bring to the learning situation (Kuhlemeier and Hemker, 2007).

Methodology

The study adopted the survey research design. The population comprised selected SS1 and SS2 students who are in the private and public secondary schools in Ijebu-Ode, Ogun State, Nigeria. Multi-stage sampling was employed. First, private and public secondary schools were put in ten 10 clusters using their location within Ijebu-Ode. Two clusters were randomly selected consisting of private schools in one cluster and private schools in the other cluster. Secondly, random sampling technique of the balloting type was used to select 10 schools in all. Four (4) private secondary schools from the private school cluster and Six (6) public secondary schools from the public school cluster were also chosen at random using a random number generator. This gave a total of 10 secondary schools. Twenty students were selected from each of the schools also using random number generator. This gave a total of 310 students as the sample size for this study. Data for this study were collected through the use of a well-structured questionnaire and interview guide. The exercise was carried out with the assistance of the class teachers in the selected schools. The instrument was constructed on the basis of research objectives. Validation of instrument was done in consultation with research experts in information science and measurement and evaluation. Their criticisms and suggestions were positively utilized for a more valid instrument. The reliability test for the instrument was determined using the test re-test method. Administration of the instrument was done for 310 students (130 students from private secondary schools and 180 students from public secondary schools. Scores were assigned to the responses of the selected respondents. The instrument was

considered reliable with a reliability coefficient of 0.70 and above. The instrument was personally administered by the researcher and trained research assistants. Pearson Product Moment Correlation test, mean and standard deviation were used for the analysis.

Results

Benefits of Students' Use of the Internet

Table 1: Benefits of Internet Use

	Items	SA	A	D	SD	N	FX	MEAN	DECISION
1	Internet use makes students to have confidence in themselves in solving class assignment.	150	200	50	15	310	899	3.25	Agree
2	Internet use encourages secondary school students' independence in carrying class assignments.	120	110	50	25	310	899	3.25	Agree
3	Use of internet encourages students' teamwork in solving their class assignment.	118	100	50 15	10	310	800	3.17	Agree
4	Internet helps students to carry their class assignment at their convenient time.	100	150	60	0	310	790	3.15	Agree
5	Use of internet makes student to be on top of their class assignments.	180	155	60	15	310	810	3.18	Agree
6	Use of internet in carrying class assignments increases critical thinking among students.	150	90	20	0	310	890	3.22	Agree
7	Internet use assists students carrying their class assignment faster.	120	130	20	10	310	830	3.20	Agree
s	**Grand Mean**							**3.28**	

Criterion Mean= 2.50

Respondents are of the view that they benefitted immensely by using internet for class work and assignments. All the seven items on the scale recorded positive mean scores. The students opined that they have confidence in themselves in solving class assignments; they are independent in carrying out class assignments, it encourages them for teamwork in solving their class assignments, also at convenient time. Internet use has also made the students to be on top of their

class assignments and also in carrying such assignments out faster. Furthermore, it has increased their critical thinking. In all, internet use has a great positive influence on students' class assignments and work as indicated in the table above.

Time Spent on the Internet by the Students.

Table 2: Time Spent on the Internet

Study Activity	Hours Spent
Chatting	8 hours
Download documents	6 hours
Watch video online	7 hours
E-mail	2 hours
Random surfing	3 hours
Visiting general websites websites	1 hour
Game websites	3 hours
Online shopping	1 hour
Reading News	1 hour
Studying for school	2 hours

From data gathered as presented on Table 2, the result shows that most of the secondary school student spend more time on chatting than any other activity. They also spend seven hours on watching videos and six hours on downloading documents. Less time was spent on emailing, internet surfing, gaming, online shopping and reading of news stories.

Influence of Internet Use on Academic Performance of Students

Table 3 Internet Use and Academic Performance of Students

Variables of Study	R	Sig	Remark
Internet Usage by Students	-0.157	**0.025**	**P<0.05**
Academic Achievement			

* Correlation significant at 0.05 level, r = -0.157; P< 0.05 Decision: Significant

It was hypothesized that use of internet will not significantly influence the academic performance of students in secondary schools. The use of the internet by the students was found to positively influence their academic performance (r = -0.157; p<0.05). The hypothesis that states that the use of the internet will not significantly influence academic performance was rejected.

Discussion of Findings

Globally, Internet is used in almost all spheres of live, more importantly, in academic environment where students need to search for information in order to enhance their academic performance. Internet use benefited the students tremendously; they were able to develop confidence and independence in themselves and also engage in teamwork in solving class assignments. The study also showed that the students could engage their school work and assignments faster and conveniently. Although there are reasons for people to be afraid of internet use, however its benefits as a learning platform far outweighs it demerits. To these students, it has been highly beneficial. The time spent on the internet was mainly for chatting, downloading documents and in watching online videos. These activities one can say complements academic activities. It is assumed that the students participate in educational chartrooms, download learning related documents and watch academically stimulating videos. This would help their academic performance as this study has revealed.   The study investigated the influence of internet usage on the academic performance of secondary school students. It was

discovered that there is a significant positive influence of internet use on the academic performance of students who have access to the internet compared with those who do not. This aligns with the results of a three-year study conducted by Judge, Puckett and Bell (2006). This researchers monitored the performance of the students for 3 years in their study, the result gotten shows that access to and the use of the Internet are positively correlated with student academic performance. A few studies in literature have found no significant evidence of the Internet usage on students' academic performance, and a few have shown contradicting results (Englander, Terregrossa, & Wang 2010). Although in an oral interview between the researcher and some respondents, many respondents claimed that they make use of internet for academic purpose and to socially network with friends, some revealed that using of internet make them stay late at night but it does not affect their studies. This finding goes in agreement with the work of Goolsbee and Guryan (2006) who analyzed the impact of electronic-rate (E-Rate) programme on California's public schools. The authors found that the increase in Internet access and use at schools had effect on students' test scores.

Conclusion

It can be deduced from the findings that the respondents are aware of the internet and access it for positive gains. Also, the respondents all agreed that the internet have positive influence on their class assignments which in turn improved their academic performance. Government democratise internet connectivity to help students in developing themselves as well as encouraging them to learn. Students need to be able to optimize the vast resources and capabilities of the internet to make positive impacts in the life of each individual's career, hobbies, academics and social life. The Internet is critical to modern life and learning; therefore schools need to see it as such. The policy direction and practices in our schools should reflect this; curriculum should also emphasize the integration of internet use and by extension

technology use in the education of students in Nigerian schools. The study further recommends that:

i. Institutions of learning should endeavor to reiterate the awareness and importance of the internet particularly for teaching and learning to improve their academic performance.

ii. Teachers should also evolve regulations to guide the extent of the internet usage to avert getting to the point of over dependency among the students.

iii. Parents should endeavor to guide their children on the danger of excessive usage of the internet which may negatively affect their academic performance.

iv. Students should be properly educated on how to make fruitful use of the internet. Trainings and seminars should be organised periodically to further entrench responsible use of the internet.

REFERENCES

Aboderin, O. S., Fadare, O. G., Kumuyi, G. J., & Lawal, O. O. (2011). Pedagogical appraisal of internet and computer usage among secondary school teachers and students in Southwest Part of Nigeria. *World Journal of Young Researchers*, 1(4), 54-9.

Achimugu, P., Oluwagbemi, O., Oluwaranti, A, and Afolabi, B (2009). Adoption of information and communication technologies in developing countries: an impact analysis. *Journal of Information Technology.* 9(1), 37-46. Retrieved from http://www.jiti.net/v09/jiti.v9n1.037-046.pdf.

Adomi, E.E. (2005). Internet development and connectivity in Nigeria. Program: *Electronic Library and Information Systems.* 39 (3), 257-268.

Amaoge, A.D. & Igwebuike, E.U. (2016).Assessment of Internet Awareness and Use by the Undergraduate Students of College of Agricultural and Science Education in Michael Okpara University of Agriculture Umudike. *American Journal of Educational Research*.

Bernard, R. and Dulle, F. (2008). "Assessment of access and use of school library information resources by secondary schools students in Mororgoro Municipality, Tanzania", http://digital_commons.unl.edu/cgi/viewcontent.cgi?article=2864&context=libphilprac accessed 13 November, 2016.

Cawkell, T. (2002). The information society: history and futures, *Journal of lnformation Science*, 28(5), 433-435.

Chen, F., Hsiao, P., Chern, A. & Chen, C. (2014). An exploration of middle and high school students' perceptions of deviant behavior when using computers and the internet. The *Journal of Technology Studies* 31(2), 70-80.

Christopher, O. K., & Maria- Gorretti, E. (2012). Availability and the use of computer and internet by secondary school students in Benin City, Nigeria. *International Journal of Library and Information Science,* 4(2), 16-23.

Clark, R,T. (2003). Homework-Focued Parenting Achievement in Families and School in a Pluralistic Society, Charkin, Ed.85-105, State University of New York.

Comer, S.T.(2006)' Expanding Knowledge of Parental involvement in Secondary Education Effects on High School Academic Success' Tech.Rep 27, Johns Hopkins University Centre for Research on the Education. Baltimore: MD,USA.

Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in Human Behavior,* 17, 1 87–195.

Dietrichson, J., Bøg, M., Filges, T., Jørgensen, A.M. (2016). PROTOCOL: Protocol for a Systematic Review: Targeted School-Based Interventions for Improving Reading and Mathematics for Students With or At-Risk of Academic Difficulties in Grade 7 to 12: A Systematic Review. *Campbell Systematic Reviews*. 12. 1-57.

Downes, T. (2009). Blending play, practice and performance: children's use of the computer at home. *The Journal of Educational Enquiry*, *3*(2). 96-105.

Englander, F., Terregrossa, R. A., & Wang, Z. (2010). Internet use among College Students: Tool or Toy? *Educational Review*, 62(1), 85-96.

Ersoy, A. and Yasar, S. (2003). llkogretim 4. ve 5. Smrf ogrencelerinin internet kullainma durumlan. *Turk Egitim Bilimleri Dergisi*. 1(4), 401-426.

Fuchs, T.H. & Woessmann, L. (2004).Computers and student learning: Bivariate and multivariate evidence on the availability and use of computers at home and at school. Mu¨nchen, Germany: Institute for Economic Research.

Goolsbee, A. & Guryan, J. (2006). Impact of Internet Subsidies in Public Schools. *The Review of Economics and Statistics,* 88(2), 336-347.

Isman, Aytekin; Canan Gungoren, Ozlem (2014). Digital Citizenship. *Turkish Online Journal of Educational Technology - TOJET*, 13(1), 73-77.

Jibrin, M.A., Musa, M. N, and Shittu, T. (2017). Effects of internet on the academic performance of Tertiary institutions students in Niger State, Nigeria. *International Journal of Education, learning and Training.* 2(2), 57-69.

Judges, S., Puckett, K., and Bell, S.M.(2006). Closing the digital divide. Update from the early childhood longitudinal study. *Journal of Educational Research*, 100(1), 52-60. https://dol.org/10.3200/JOER.100.1.52-60.

Kandell, J. J. (1998). Internet addiction on campus: The vulnerability of college students. *CyberPsychology & Behavior*, 1, 11–17.

Kikwa, H C. (2010). The internet access and use from gender perspective. A case of Kinondoni and Bagamoye Districts, Tanzina. Unpublished Masters of Arts and lnformation studies dissertation, University of Dar-es-salaam. Tanzina.

Kuhlemeier, H., & Hemker, B. (2007). The impact of computer use at home on students' Internet skills. *Computers & Education*, *49*(2), 460-480.

IBE- lnternational Bureau of Education (1997). lnformation and communication technologies in education. Educational lnnovation and lnformation, 91.

Loges, W.E. and Jung, J.Y. (2001).Exploring the digital divide: Internet connectedness and age. *Communication Research*, 28, 536-562.

Machumu, H.J and Kisanga, S.H. (2014). Quality Assurance practices in Higher Education lnstitutions:Lesson from Africa. *Journal of Education and Practice*, 5(16).

Mazzuki, S.D.(2010). Assessment of the use of the internet and professional development of mathematics teachers in Dar-es-salaam city and lramba District secondary schools. Tanzina. Unpublished Masters of Education Science Dissertation. University of Dar-es-Salaam. Tanzina.

Mami,S. and Hatami-Zad, A.(2014). lnvestigating the effect of lnternet Addiction on Social Skills and in High School students' Achievement. *International Journal of Social Science and Education.* 4(Special lssue), 56-61.

McQuail, D. (2005). McQuail's mass communication theory (5[th]ed.). Los Angeles: Sage Publication.

Moeller, B. (1996). Learning from television. A research review CCT REPORTS.

Odaci, H. (2011). Academic self-efficacy and academic procrastination as predictors of problematic Internet use in university students. *Computers & Education*, 55, 1614–1617.

Odaci, H., & Kalkan, M. (2010). Problematic Internet use, loneliness and dating anxiety among young adult university students. *Computers & Education*, 55, 1091–1097.

Ogedebe, P. M. (2012). Internet usage and students' academic performance in Nigeria tertiary institutions: a case study of university of Maiduguri.

Oghenetega Ivwighreghweta and Mercy, A. I. (2014)."Impact of the Internet on Academic Performance of Students in Tertiary Institutions in Nigeria". *Journal of information and knowledge management*, 5(2), December 2014.

Olatokun, W. M. (2008). "Internet access and usage by secondary school students in a Nigerian Municipality", http://sajlis.journals.ac.za/pub/article/view/1295/12255.

Oral, B. (2004). Ogretman adaylarinm internet kullanma durumlan. *Elekronik Sosyal Bilimler Dergisi*, 3 (10), 1-10. Retrieved Jan. 10, 2010 from http://www.e-sosder.com

Simon, R.L. (2004). Families, *Journal of Marriage and the Family*, 83(2), 894-606.

Tarimo, R. (2017). "Internet access and usage by secondary school students in Morogoro Municipality, Tanzania". *International Journal of Education and Development using Information and Communication Technology*, 13 (2),. 56-69.

Taşpınar, M. & Gümüş Ç. (2005). Ülkemizde internet kafelerin ortam ve kullanici profili *Elektronik Sosyal Bilimler Dergisi*, 3 (10), 80-93.

Tutkun, F. O. (2011). Internet access, use and sharing levels among students during the teaching-learning process. *The Turkish Online Journal of Educational Technology,* 10 (3), 152-160.

Ureigho, R.J., Oroke, G.U., & Ekruyota, G.O. (2006). The impact of internet usage: A case study of Delta State (Nigeria) tertiary institutions, *Scientific Research and Essay*, 1(2), 54-56.

Widyanto, L., & Griffiths, M. (2006). 'Internet addiction': A critical review. *International Journal of Mental Health and Addiction*, 4(1), 31–51.

Young, K.S. (2011) 'Clinical assessment of internet addicted clients' in lnternet addiction: a Handbook and Guide to Evaluation and Treatment. Eds K.S Young and C.Nabuco De Abren. Hoboken. N.J: John Wiley & Sons, 19-34.