



# Internet Subscription and Senior High School Performance

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## Abstract:

This study assessed the association of Internet subscription on the academic performance of Grade 11 and 12 senior high school students. The study used quantitative approach-descriptive survey research design. Complete enumeration was used as a sampling design. The research tool was a self-made questionnaire. The table of frequency of students with and without internet subscription stated that majority of students has internet subscription and students who have internet access has an advance rating of academic performance. The level of the necessity of internet subscription and level of academic performance stated that the level of necessity of having internet subscription was necessary. The table about with and without internet subscription and level of academic performance stated that students who have internet subscription had a satisfactory rate of academic performance. The lambda correlation between level of academic performance and level of necessity of internet subscription resulted if level of performance was considered independent, 13% of students intend to have internet subscription with better academic performance. Likewise, if internet subscription was considered independent, 13% percent that internet subscription predicts the level of performance in opposite direction. Internet subscription was proved to connection predicts the level of performance in opposite direction. Internet subscription was proved to students are expected to improve their academic performance by improving their study habits and look for information on books and articles. Teachers may give in structural materials wherein the lessons were already present so that students will be guide. Teachers may introduce peer monitoring and administrators may improve school library. The study showed that students' academic performance was not affected by the availability of internet connection.

**Keywords:** academic performance, internet subscription, senior high school students, social media

## 1. INTRODUCTION

Internet subscription dichotomously offers both utile and recreational use whoever uses it, students, teachers, businessmen and any other professionals. In the educational institutions, it has intensively used in the daily classroom activities and tasks of students, instructional activities of the teachers and even the school administrators and educators. In particular, the learners live and learn with internet nowadays through cellphone mobile data or purely internet subscription. Gamboa and Suaza (2011) found out that increasing the initiatives that are oriented to increase the utilization of computer in young people to generate positive externality on their academic performance. In like manner, Stephen (2011) ascertained that the use of automated media to support and facilitate academic programs was where modern university education worldwide depends. Youssef and Dahmani (2008) learned that new possibilities for learners and teachers were offered by higher education due to profound impact in the learning process through ICT. Major factor in student performances and achievement was through adoption of complementary organizational innovation. Nelson (2009) learned that if internet was accessed by students and scholars, academic performance generates and contributed to the advancement of education[4]. In addition, Sahin, Balta and Ercan (2010) observed that using less accessible and more secure internet use gather more useful reliable information. Reliability of results cannot be ensured even using highly accessible internet sites may give fast results. Furthermore, Brown (2011) discovered an increase in students' overall

academic performance when TEL or technology enhanced learning are effectively used.

### Review of Related Literature

Crampton, Ragusa and Cavanagh (2012) ascertained that both the diversity of available resources and the proportion of each type accessed by students were related to the relationship between resource accesse. Likewise, Deore (2012) argued that internet is a most powerful educational tool for teaching learning and useful for self-study to student, gives student a lot of information for students to achieve goal, and could also be used for assignment and the progress of students. Similarly, Nyokabi and Lukandu (2012) found that Internet was considered very important for students in order for them to excel in their academic performance in all units they study. Then, Ogedebe (2012) discovered that Internet usage and academic achievement has a positive correlation[9]. Abubakar and Diyoshak (2014) found that Internet usage has a significant relationship to their library visits. Coupled with, Aitokhuehi, Oseghale and Ojogho (2014) found that generally, academic performance of computer-literate students is more enhanced than those who are not .Toress-Díaz, Duart, Alvarado, Gutiérrez and Faggioni (2016); and Turel, ToramanKamla-Raj (2015) ascertained that greater academic success is achieved when a balanced use of Internet tools was achieved by students for their course work leading to a significant influence of Internet use on academic performance. Likewise, Siraj and Salam (2016) ascertained that there is no significant negative correlation between academic achievement of students and their internet usage and that students who have high internet usage accompany better academic results for

students can avail the opportunity to access the information world. Jehopio, Wesonga and Candia (2017) noticed that higher academic achievement was attained by students who use Internet in harmony with the aim of their study. Osunade (2003) ascertained that academic performance of students with Internet access has a significant difference. Sun and Bradley (2003) mentioned that frequent computer usage was not a good indicator in predicting academic achievement. Higher achievement scores were achieved by students who use computer almost every day than those who use it moderately or low frequencies. Luaran, Abdul, Rom and Nadzri (2010) found that negative effects will result to high intensity of Internet use if the users do not know their priorities. Akhter (2013) discovered that internet addiction and academic performance has a negative significance. Ellore, Niranjana, and Brown (2014) observed that there was no significant relationship between Internet usage and academic performance because most students have access to Internet on their cellphones and have control over the use of Internet. Aba, Kwaghga, Ogban and Umogbai (2015) found that limited impact was made through the provision of internet services usage. Galgao (2015) discovered that internet usage doesn't affect respondent's academic performance. Sachitra (2015) ascertained that academic performance of students was negatively impacted by internet addiction. Emeka and Nyeche (2016) observed that student's academic performance was affected by the number of hours spent on the internet. Internet usage for study purpose and academic achievements are directly proportional. McCamey, Wilson and Shaw (n.d.) discovered that students' use of the internet and the effect of such use on the academic performance have found no statistically significant correlation. In this research study, the researcher intends to assess the association between internet subscription and academic performance of the senior high school students. Brown (2011) found that TEL programs are effective and can increase students' overall academic performance. Gamboa and Souza (2011) surveyed 277, 267 students ascertain that access at home and at school plays specific roles on student training, and the quality in use, rather than intensity in use, affect positively the student performance. Stephen (2011) found that use of automated media to support and facilitate academic programs is where modern university education worldwide depends [p.10]. Crampton, Ragusa and Cavanagh (2012) surveyed 593 students discovered that resource access and academic success was due to both diversity of available resource and the proportion of each type is by the student. Deore (2012) ascertained that one of the useful progress that can achieve their goal is to access the Internet. Nyokabi and Lukandu (2012) found that internet helps students to excel in their academic performance. Ogedebe (2012) surveyed 350 respondents of questionnaire in Bingham University, Nasarawa State Nigeria discovered that Internet usage and academic achievement has a positive correlation. Abubakar and Diyoshak (2015) surveyed 207 students found that using internet plays an important skill of a student. Aitokhuehi, Oseghale and Ojogho (2014) surveyed 120 out of 1,200 final year students ascertain that computer literacy enhances student performance generally, computer literate students perform better academically. Díaz, Duart, Alvarado, Gutiérrez and Faggioni (2016) surveyed 4,697 students discovered that students have greater academic success in using of Internet tools for their coursework. Siraj and Salam (2016) surveyed 234 medical students of academic session students

ascertain that higher internet brings better academic result to students. Jehopio, Wesonga and Candia (2017) surveyed 312 Makerere University students found that whoever who use internet as their bases of learning aim their study were more likely to attain higher academic achievement. Osunade (2003) surveyed 160 out of 200 students discovered that there is a significance difference of academic performance of students with Internet access. Sun and Bradley (2003) surveyed 4,990 students ascertain that computer usage is not a good indicator. Luaran, Abdul, Rom and Nadzri (2010) surveyed 8 TESL students at the Faculty of Education in University found that high using of Internet brings negative effects. ICT can be used to rescue students in their inadequacies like in preparation of communication to parents electronically in which these letters can be customized according to the user's liking and information dissemination to students and parents with regards to computerized academic system (Rahayu, and Huda, 2017) and integrate ICT effectively in teaching and learning. (Van der Westhuizen, Nel, & Richter, 2012). ICT plays an effective role in students' academic performance. (Alemayehu, & Natarajan, 2018); possible positive effect on student performances and achievement. (Youssef, and Dahmani, 2010). Particularly, it improves academic performance of the students in Social Studies particularly between students taught using ICT and text books students alone. (Arinze, Okonkwo, Wino and Augusta, 2012); Mathematics and Language (Garcés and Soto, 2017). In some other cases, the availability of internet so that students can access showed a better improvement in students' academic performance than those who do not use the internet (Yebowaah, 2018). Likewise, computer literate perform better in their academics than the non-computer literate, female computer literate students perform better than male computer literate students and co-educational secondary school literate performs better than gender exclusive school computer literate (Aitokhuehi, & Ojogho, 2014). When E-learning is implemented with ICT facilities, student performance is academically improved. (Zahir, Razak, Chi, Zainan, & Kasim, 2018). ICT access at home moderately contributes to learning and better achievement. (Vincze, 2016): Learning process and support in preparing assignments and classroom activities reduce social disparities but promote teamwork. (Khan, Siraj-u-Din, Ismail, Khattak, and Jan, 2015). Gender and Grade Point Average (GPA) and school performance. (Basri, Alandejani, & Almadani, 2018). In the contrary, ICT bears no significant association between Information and Communication Technology usage and the academic performance of students. (Mbaeze, Ukwandu, Anudu, 2010); It has no effect on the learning process (Alderete, and Formichella, 2016).

For instance, among visually impaired students using of ICT tools. (Eguavoen, 2016) and in ICT-induced multi-tasking through self-regulation, emotional control, productivity and the span of the student attention. (Jehopio, Wesonga, and Candia, 2017) Socio-economically poor students have poorer academic performance in the public schools though ICT use was inculcated intensively which is suspected to be due to misuse ICT among students. (Kiseku and Kwasira, 2015). Otherwise, ICT integration skill among teachers can very minimal due to its unavailability (Mbugua Ngugi, Gori Mochama, & Tanui, 2015). Likewise, students in the private schools do not integrate ICT into their studies. (Charlesa and Issifu, 2015). In this regard, the

researcher intended to assess the association of internet subscription to the academic performance of the students in the local and contextualized scenario.

## 2. MATERIALS AND METHODS

### Design

The quantitative approach – descriptive survey is utilized by the researchers in which throughout the research process, analysis of data is included. The sampling design utilize by the researchers is complete enumeration.

### Respondents and Environment

The study was conducted in a senior high school (SHS), located in Mandaue City, Cebu, Philippines. The Senior High School in answer to the implementation of the K to 12 program of the Philippine government throughout the country. The senior high school is offering the three academic strands namely General Academic subjects; Humanities and Social Sciences; and Accountancy and Business Management. With the population of 273 students as of school year 2017-2018, 34 students are in 11-ABM, 55 students are in 11-GAS, 40 students are in 11-HUMMS. On the other hand, there are 51 students in 12-ABM, 64 are in 12-GAS and 29 students are in 12-HUMMS. By complete enumeration, a total number of 245 students from both Grade 11 and 12 are responded.

### Instrument

There will be one (1) self-made questionnaire for this study with eight (8) questions. The first question was related to having an internet subscription, second question was about the average grade of the students and third question was about the influences made by the internet on the academic performance of students. The added five statements were about the possible benefits that the internet may give to the students.

### Gathering of Data

The researchers submitted a transmittal letter to the head of the school which was signed as an approval for the survey to be conducted. The researchers gathered the data through room-to-room survey. The survey was done last September 4, 2017. They distributed the survey sheet to the respondents and let them answer freely. After answering, the questionnaires were collected, tabulated treated statistically, analyzed & interpreted.

### Statistical Treatment

#### Simple Percentage

The simple percentage is used for computing simple percentage to identify the percentage of the students in their academic performance and internet connection.

#### Chi-square with Yates Correction

The Yates correction is a correction made to account for the fact that both Pearson's chi-square test.

#### Goodman- Kruskal-Wallis gamma

The value of one variable is used to predict/ estimate the value of another variable. In this study, the researcher intends to know if internet subscription determines the performance of the students unless the academic performance determines the utilization of internet of the students to help them in their studies

## 3. RESULTS AND DISCUSSIONS

The internet subscription of the Senior High School students was assessed using a three self-made questionnaire. In order to determine whether the respondents had an internet subscription, they were asked to answer the first question in the questionnaire. All the answers were tallied according to their average grade indicated in the number two question. The results were totaled according to the results from the level of academic performance and the availability of internet connection.

**Table .1. Frequency of students with and without internet subscription and academic performance**

Variables	F	%	S	%	VS	%	A	%	Total
With internet connection	34	58.62	53	55.79	26	41.94	18	60	131
Without internet connection	24	41.38	42	44.21	36	58.06	12	40	114
Total	58	100.00	95	100.00	62	100.00	30	100.00	245

**Legend:** Fair (F),80-below; Satisfactory (S),81-85, Very Satisfactory (VS),86-90, Advance (A) 90-above

Table 1 shows that majority of the students of Senior High School Department has internet subscription. 53% or 131 out of 245 of the respondents answered that they have access on the internet. The highest percentage is 60% under the advanced level of academic performance.

Therefore, students who are under the advanced level of academic performance have internet connection. Students can access fast internet through Wi-Fi but nowadays it can easily access through cellular data. Internet subscription becomes progressive in the Philippines. In the study of Adaja (2005) stated that Internet can effectively contribute to educational

advancement which makes use of internet. With the use of cellular data, students can easily access on social media— Facebook, twitter, Instagram and Spotify. Sometimes, cellular data helps you to search some information found in the google and other search engine. Also, Turkish Online Journal of Educational Technology (2010) agreed that internet has been shown to influence the academic performance of students both academic and attitudes towards learning. Necessity of having Internet Connection the necessity of having Internet subscription of the Senior High School students was determined by tallying the results and determining the total results. The results were

totaled according to the results from the level of academic performance and the level of internet necessity.

**Table .2. Level of necessity of internet subscription and level of academic performance**

LEVEL	F	%	S	%	VS	%	A	%	TOT	%
Fairly Necessary	14	25.45	25	25.51	5	8.33	4	13.33	48	19.75
Necessary	25	45.46	46	46.94	29	48.33	17	56.67	117	48.15
Absolutely Necessary	16	29.09	27	27.55	26	43.33	9	30.00	78	32.10
TOTAL	55	100.00	98	100.00	60	100.00	30	100.00	243	100.00

**Legend:** Level of Necessity of Internet Connection: Poor(1.00-1.80), Not Necessary(1.80-2.60), Fairly Necessary(2.61-3.40), Necessary(3.41-4.20), Absolutely Necessary(4.21-5.00)

The leveling proceeded to fairly necessary level because the level “not very necessary” to “not necessary” has low frequency. So instead of including it to the computation which may give an error to the results, the low number of frequencies is collapsed to the level fairly necessary. The table shows that 98 out of 243 respondents has an average grade of 81-85 or under the satisfactory level. The level of necessity of internet subscription 3.41-4.20 has the highest number of result which is 48.15% out of 100% which means internet is necessary for students who look for information found in the internet which

helps them to make their assignments faster. Other level such as “fairly necessary” has a result of 19.75% out of 100 which means that to students with access on internet has a low academic performance.

In absolutely necessary, it gives a result of 32.10% out of 100. Students with higher access on internet earned a higher academic performance to students. Therefore, 48.15% of students having an average of satisfactory needs internet connection. The level of necessity of having internet subscription is necessary.

**Table.3. With And Without Internet Subscription and Level Of Academic Performance**

	STRAND	F	%	S	%	VS	%	A	%	Tot	%
WITH	ABM	1	2.94	9	16.98	11	42.31	14	77.78	35	26.72
	GAS	18	52.94	24	45.28	9	34.62	3	16.67	54	41.22
	HUMMS	15	44.12	20	37.74	6	23.08	1	5.56	42	32.06
	TOTAL	34	100.00	53	100.00	26	100.00	18	100.00	131	100.00
WITHOUT	ABM	1	4.17	7	16.67	38	79.17	0	0.00	46	40.35
	GAS	15	62.50	29	69.05	6	12.5	0	0.00	50	43.86
	HUMMS	8	33.33	6	14.29	4	8.33	0	0.00	18	15.79
	TOTAL	24	100.00	42	100.00	48	100.00	0	0.00	114	100.00

**Legend:** Fair (F),80-below; Satisfactory (S),81-85, Very Satisfactory (VS),86-90, Advance (A) 90-above

The table shows that General Academics Strand (GAS) has the biggest frequency in all strands that has internet connection. Likewise, General Academics Strand (GAS) also got the biggest frequency in all strands that has no internet connection. Most of the respondents answered that they have internet connection. Students who have access on the internet tends to have a satisfactory rate in the academic performance. Therefore, students who have internet subscription have a satisfactory rate of academic performance. A General Academic Strand student who has internet subscription has a total of 54 out of 131. In

most aspects, GAS students influence their academic performance and internet connection. Those who have internet subscription usually have a good remark on their performance in school. Also, GAS students with no internet subscription tend to have a good remark in school. Therefore, academic performance would not depend upon the internet connection. Students can have a good remark with or without a internet connection. It doesn't matter how fastest your internet is but on the student itself would depend on how can they good in their academics.

**Table.4. Lambda correlation between level of performance and level of necessity of internet subscription**

Level of Performance	$\lambda c$	0.13
Level of Necessity of Internet Connection	$\lambda r$	-0.13

If Level of Performance is considered independent for about 0.13 or 13%, is the error reduced in the prediction. The students with better performance tend to use internet subscription for study or learning activity. Based on the grades, 13% of students intend to have internet subscription with better academic performance. According to the study of Ogedebe (2012), internet usage and academic achievement has a positive correlation. Also, Nyokabi and Lukandu (2012) found that internet is

considered very important for students in order for them to excel in their academic performance in all units they study. Lastly, Crampton, Ragusa and Cavanagh (2012) ascertained that both the diversity of available resources and the proportion of each type accessed by students were related to the relationship between resource accesses. If Internet subscription is considered independent, about -0.13 or -13% is the error reduced in the prediction. Based on dominance of opposite direction, 13%

present that internet subscription predicts the level of performance in opposite direction. Internet subscription is proved to decrease the level of performance. Osunade (2003) stated that academic performance of students with internet

access has a significant difference. In addition, Luaran, Abdul, Rom and Nadzri (2010) found that negative effects will result high intensity of internet use if the users do not know their priorities.

**Table. 5. Summary of chi-square results**

VARIABLES	$\chi^2_{\text{comp}}$	df	$\chi^2 (.05)$	Interpretation
Level of performance and internet subscription	10.86	6	12.592	Failed to Reject
With internet connection	40.27	6	12.592	Reject
Without internet subscription	56.67	4	9.488	Reject

The table above shows that between level of performance and necessity of internet subscription the computed value  $X^2(10.86)$  is greater than  $X^2_{.05,6}$  (12.592) which means it is failed to reject. It also shows that academic performance and internet subscription has a significant association for accessibility of internet greatly helps students in providing necessary information in their various fields and subjects. Internet usage and academic achievement has a positive correlation. (Ogedebe, 2012; Nyokabi and Lukandu (2012). Crampton, Ragusa and Cavanagh (2012) ascertained that both the diversity of available resources and the proportion of each type accessed by students was related to the relationship between resource access. With internet subscription,  $X^2(40.27)$  is greater than  $X^2_{.05,6}$  (12.592) and so it gives a result of reject. It shows that having internet subscription has no significant association with academic performance because although internet subscription is available and accessible, there is still a possibility that the information gathered is not reliable.. In addition, Luaran, Abdul, Rom and Nadzri (2010) found that negative effects will result high intensity of internet use if the users do not know their priorities. Without internet subscription,  $X^2(56.67)$  is greater than  $X^2_{.05,4}$  (9.488) and its interpretation is reject the  $H_0$ . It shows that absence of internet subscription has no significant association with academic performance because information can also be gained with the use of books, journals or articles that are available in libraries and bookstore. This might be true to some students who are still using library or personal references. Ellore, Niranjana, and Brown (2014) observed that there is no significant relationship between internet usage and academic performance because most students have access to internet on their cellphones and have control over the use of internet add, Galgao (2015) said that internet usage doesn't affect respondents' academic performance.

#### 4. SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATION

##### Summary of Findings

The level of academic performance of the senior high school students gives an excellent performance in which they would have a good remark with or without an internet subscription. A student who has an internet contributes approximately in their studies which give them a good remark in their grades. The level of internet utilization in their studies helps greatly upon searching information in website and gives a comprehensive knowledge which students have a good average grade. Internet gives a possibility to have a great impact on students' performance and achievement. Students with access on internet

tend to have a good academic grade. A fastest internet subscription could help students absorb information. The level of academic performance and internet subscription has a significant association for accessibility of internet which helps students in providing necessary information in their subjects.

#### 5. CONCLUSIONS

Senior high school students 'level of performance does not depend entirely on the accessibility of internet connection. Internet subscription is not a necessity in having a good academic performance but its academic performance that determines students to improve their academic performance with the aid of internet connection. Brown (2011) agreed that internet subscription increase academic performance of students which enhance students' learning experience and gives an additional understanding. Klein (2010) stated that technology is a tool that can enhance learning but cannot solely rely upon increasing student academic performance. In most desirable case, internet subscription is not a hindrance to achieve academic performance. UK Essays (n.d) agreed that accessibility of internet subscription increases academic grade of students. Technology is not a silver bullet—and cannot by itself—produces the good learnings of students but with the students itself. Somehow, in most cases technology is a key ingredient of learning. A Journal of Economics and Economic Education Research proved that when all venues of Internet use are exhausted which refer to as intense use gives lower grade compare to students with no internet access. Finally, attitudes towards internet utilization manifested as motivating factor to increase or decrease academic performance.

#### RECOMMENDATIONS

Students are expected to improve their academic performance by improving their study habits and instead of relying too much on the information found on the internet. Students can use books and reading articles. With that, students should do their part to be responsible—not just getting attached with internet with nonsense purpose. Also, students must focus on their studies by not doing unnecessary things not related to their study, like being tempted by their peers, playing online games and mobile games on their cellphones. Teachers may give instructional materials wherein the lessons are already there so that students will be guided on the lessons that will be tackled in class. They should provide a curriculum guide to let know the students what the teacher is going to discuss. Teachers should do an activity first before discussing so that students will be energized to listen. Teachers may introduce peer mentoring where there is

collaboration between students on the lessons that they found a hard time and on the future lessons that they will tackle. Teachers may improve the school library where there are given a book that can be referred to any subject or that can be related to a study. Administrators may improve the school library where there are more books for student's library works and assignments. Every classroom should have bookshelves for

students who have a difficulty of words, to search for a narrative research and to read more books on a specific topic. The current study is focusing only in students' academic performance and internet connection. Furthermore, research is recommended particularly in Social Media, Online Medium of Instruction and Academic Performance and Access in Online Games and Academic Performance.

**6. APPENDICES  
QUESTIONNAIRE**

1. Do you have an internet subscription?  
 Yes       No
  
2. What is your average grade?  
 75-below  
 75-80  
 81-85  
 86-90  
 91-above
  
3. What are the influences made by the internet on your academic performance?  
 It aids research  
 Provide access to current internet sources  
 Help prepare for examinations and tests  
 Help in assignments  
 Aids communication between students and teachers

Internet	5	4	3	2	1
It aids my studies in providing the information needed.					
Internet provides the current sources that meets my necessity of information.					
Internet helps me in my assignments because it has all the information.					
Internet aids communication between students & teachers to help provide necessary information.					
Internet helps me prepare for my assignments & tests as it serves as my reference of information.					

**Legend:** Strongly Agree (5); Agree (4); Neutral (3); Disagree (2); Strongly Disagree (1)

**7. REFERENCE**

[1]. Aba, J., Kwagha, B, Ogban, O. &Umogbai, M. (2015) The use of internet services by postgraduate students for research in francisidachaba library, university of agriculture makurdi: Iosr Journal Of research & method in education (iosr-jrme): 5,(1 ver.) [http://www.iosjournals.org/iosr\\_jrme/papers/vol.5%20issue-1/version-2/005121523.pdf](http://www.iosjournals.org/iosr_jrme/papers/vol.5%20issue-1/version-2/005121523.pdf)

[2].Abubakar, D. &Diyoshak, R. (2015) Evidence Based Library And information practice: internet connctivity and accessibility in university libraries: a study of access, use and problems among faculty and natural sciences students, university of jos, nigeria: 10.4 <https://ejournals.library.ualberta.ca/index.php/ebliip/article/view/23412/19239>

[3]. Aitokhuehi, J.O. & Ojogho, J. (2014). The Impact of Computer Literacy on Students' Academic Performance in Senior Secondary Schools in Esan West Local Government Area, Edo State, Nigeria. *American Research Institute for Policy Development: Journal of Education and Human Development*, 3(3), 265-270 . 10.15640/jehd.v3n3a21

[4]. Akhter, N. (2013) Educational Research and Reviews: Relationship between internet addiction and academic

performance among university undergraduates: vol. 8(19), pp.1793-1796 [http://www.academicjournals.org/article/article\\_1382342222\\_akhter.pdf](http://www.academicjournals.org/article/article_1382342222_akhter.pdf)

[5]. Alderete, M.V. and Formichella, M.M. (2016). The effect of icts on academic achievement: the Conectar Igualdad programme in Argentina .*Cepal Review* 1 1 9, 84-100.

[6]. Alemayehu, G. & Natarajan, M. (2018). Impact of ICT facility on student's academic performance in Jimma University, Ethiopia. *International Journal of Information Dissemination and Technology*, 8(3), 136-142. 10.5958/2249-5576.2018.00029.8

[7]. Arinze, F.O., Okonkwo, E. N. and Iwunor, A. N. (2012). Information and Communication Technology (ICT) Application in Secondary Schools and Students' Academic Performance in Social Studies. *African Research Review An International Multidisciplinary Journal*, 6 (4), Serial No. 27, October, Ethiopia <http://dx.doi.org/10.4314/afrrrev.v6i4.18>

[8]. Basri, W.S., Alandejani, J.A. and Almadani, F.M. (2018). ICT Adoption Impact on Students' Academic Performance: Evidence from Saudi Universities. *Education Research International*, 2018, Article ID 1240197, 1-9 Hindawi <https://doi.org/10.1155/2018/1240197>

- [9]. Brown, J.M (2011) "Does The Use Of Technology In The Classroom increase students' overall academic performance?" m.agonzaga university.
- [10]. Charlesa, B-A.and Issifub, Y. (2015). Innovation in education: Students' perceptions of implementing ICT in learning in second-cycle institutions in Ghana. *7th World Conference on Educational Sciences, (WCES-2015), 05-07 Novotel Athens Convention Center, Athens, Greece Procedia - Social and Behavioral Sciences 197 ( 2015 ), 1512 – 1519 Elsevier.*
- [11]. Crampton, A., Ragusa, T.A., & Cavanagh, H. (2012) Research In learning technology: Ccross discipline investigation of the relationship between academic performance and online resource access by distance education students: vol. 20: <http://researchoutput.csu.edu.au/en/publications/cross-discipline-investigation-of-the-relationship-between-academ>
- [12]. Deore, K.V. (2012) The educational advantages of using internet: *International Educational E-Journal, 1(2)*. <http://www.oijrj.org/ejournal/jan-feb-mar2012ieej/20.pdf>
- [13]. Eguavo, E.O. (2016). ICT Utilization As Correlates Of Academic Performance Among Students With Visual Impairment In Lagos State, Nigeria. *European Scientific Journal May2016 edition, 12(13)* URL:[http:// dx.doi.org /10.1904 4/esj.2016.v12n13p205](http://dx.doi.org/10.1904/4/esj.2016.v12n13p205)
- [14]. Ellore, S., Niranjana, S., and Brown, V. (2014).The influence of internet usage on academic performance and face-to-face communication. *Journal of Psychology and Behavioral Science, 2(2)*, 163-186 . American Research Institute for Policy Development .
- [14]. Emeka, U.J. &Nyeche, O.K. (2016): impact of internet usage on the academic performance of undergraduates students: a case study of the university of abuja, nigeria: *International Journal Of Scientific &Engineering Research, 7(10)*. <http://www.ijser.org/researchpaper/impact-of-internet-usage-on-the-academic-performance-of-undergraduates-students-a-case-study-of-the-university-of-abuja-nigeria.pdf>
- [16]. Galgao, G.J. (2015) *Catalyst: The Perceived Effects Of Internet Usage on academic achievement among southeast asian college students, 12(2)* <http://3rdscholarsconf.unai.edu/papers/?p=1139>
- [17]. Gamboa, L.F. &Gracia-Suaza, A.F. (2011): Access To Computer And academic achievement where is it best: at home or at school?:cra. 5 no. 15-37. <http://www.proac.uff.br/cede/sites/default/files/td47.pdf>
- [18]. Garcés C.R. and Soto, J.M (2017). School Performance and Technology: The Importance of ICT Skills for Chilean Student's Learning *Open Journal for Sociological Studies, ,1(1)*, 1-14. <https://doi.org/10.32591/coas.ojss.0101.01001g>
- [19]. Jehopio, P.J. Wesonga, R. and Candia, D.A.(2017). Effect of Information and Communication Technology-induced Multitasking on Academic Performance of University Students in Uganda. *International Journal of Computer Applications Technology and Research , 6(1)*, 23-31.
- [20]. Khan, M.S., Siraj-u-Din, I.K., Ismail, H.M., Khattak, R. and Jan, R. (2015). The impacts of ICT on the students' Performance: A Review of Access to Information. *Research on Humanities and Social Sciences, 5 (1)*, 85-95.
- [21]. Luanan, E., Abdul, F.S.,Rom, K.B. &Nadzri, F.A Hooked On The Internet how does it influences the quality of undergraduate students' academic performance? <http://i-learn.uitm.edu.my/v2/wp-content/uploads/2013/02/hooked-on-the-internet-how-does-it-influence-the-quality-of-undergraduate-students-academic-performance.pdf>
- [22]. Kiseku, G.M. and Kwasira, J. (2015). An Assessment of the use of innovative strategies on academic performance in secondary schools in kenya: A survey of secondary schools in nakuru town east subcounty. *International Journal of Economics, Commerce and Management United Kingdom ,III(10)*, 864-883.
- [23]. Mbaez, I.C., Ukwandu,E., Anudu, C. (2010). The Influence of Information and Communication Technologies on Students' Academic Performance *Journal of Information Technology Impact 10(3)*, 129-136.
- [24]. MbuguaNgugi S., Gori Mochama, J. andTanui, E. (2015) Integration of Information Communication Technology in Teaching in PublicSecondary Schools in Nakuru County, Kenya *International Journal of Education and Research 3(8)*.
- [25]. Mccamey, R., Wilson, B. & Shaw, J. Internet Dependency And academic performance (n.p.,n.d.) [http:// thejsms. org/index.php/ismri/article/view/98](http://thejsms.org/index.php/ismri/article/view/98).
- [26]. Muniandy, B. (2010). Academic use of internet among undergraduate students: a preliminary case study in a Malaysian university. Malaysia: *International Journal of Cyber Society and SocietyEducation*. Retrieved from academic-journals.org
- [27]. Nelson, O. (2009). Ict And Educational Performance: The Inter-Relationship Of selected critical variables. (n.p,n.d):[http://www.itdl.org/journal/may\\_10/article03.htm](http://www.itdl.org/journal/may_10/article03.htm)
- [28]. Nyokabi, K.E &Lukandu, A.I. (2012) Educational Research: evaluation of the relationship between internet accessibility and students performance: case study of strathmore university: vol. 3 (2), pp. 137-144 <http://www.interestjournals.org/full-articles/evaluation-of-the-relationship-between-internet-accessibility-and-student-performance-case-study-of-strathmore-university.pdf?view-in-line>
- [29]. Ogedebe, P. (2012) Academic Research International: Internet usage and students' academic performance in nigeria tertiary institutions: a case study of university of maiduguri: vol. 2, no. 3 <http://paper.researchbib.com/view/paper/7074>
- [30]. Onchiri, S. (2013).Conceptual model application of chi-square test in education and social sciences.Masinde University of Science and Technology, Kenya. Retrieved from <http://www.academiajournals.org/ERR>

- [31]. Osunade, O. (2003) An Evaluation Of The Impact Of Internet erwaga 2002 small grant project: an evaluation of the impact of internet browsing on students' academic performance at the tertiary level of education in nigeria [http:// www.rocare.org/smallgrant\\_nigeria2003.pdf](http://www.rocare.org/smallgrant_nigeria2003.pdf)
- [32]. Rahayu, N.W. and Huda, S.N. (2017). The Use of ICT to Support Perpetual Undergraduate Students *The International Conference on Information Technology and Digital Applications IOP Conf. Series: Materials Science and Engineering* **185** (2017) 012007, 1-7. doi:10.1088/1757-899X/185/1/012007
- [33]. Sahin, Y.S., Balta, S. & Ercan, T. (2010) Tojet: The Turkish Online of educational technology: the use of internet resources by university students during their course projects elicitation: a case study: vol. 9 issue 2: <http://www.tojet.net/articles/v9j2/9224.pdf>
- [34]. Stephen, N. (2011). "Access And Use Of The Internet: A Case Of undergraduate students in public universities of uganda" ph.d., public universities of Uganda Siraj, H.H. & Salam, A. (2015) *International Medical Journal: internet usage and academic performance: a study in a malaysian public university*, 22(2), 83-86. <http://www.researchgate.net/publication/1275833912internetusageandacademicperformanceastudyinamalaysianpublicuniversity>
- [35]. Sun, L. & Bradley, K. *Running Head: School Computer Use And Academic performance* (n.p.n.d) [http://www.uky.edu/~kdbrad2/mwera\\_letao.pdf](http://www.uky.edu/~kdbrad2/mwera_letao.pdf)
- [36]. Sachitra, V. (2015) the internet addiction, academic performance and university students: *Journal Of Global Research In Education And Social Science*: 179-186 <http://dr.lib.sjp.ac.lk/bitstream/123456789/2810/1/internet%20addictio%2c%20academic%20performance%20and%20university%20st%20udents.pdf>
- [37]. Toress-Diaz, J.G, Duart, J., Gomez-Alvarado, H., Marin-Gutierrez, I., segara-faggioni, v. (2016) comunicar: internet use and academic success in university students: n.48,v. xxiv <http://www.revistacomucar.com/verpdf.php?numero=48&articulo=48-2016-06&idioma=en>
- [38]. Turel, Y.K & Toraman, M. and Kamla-Raj (2015): The Relationship between internet addiction and academic success of secondary school students: 20(1,2): 280-288. <http://krepublishers.com/02journals/t-anth/anth-20-0-000-15-web/anth-20-1-000-15-abst-pdf/t-anth-20-1,2-280-15-1442-turel-y-k/t-anth-20-1,2-280-15-1442-turel-y-k-tx%5b30%5d.pdf>
- [39]. Van der Westhuizen, C. P., Nel, C., & Richter, B. W. (2012). An Analysis of Students' Academic Performance When Integrating DVD Technology in Geography Teaching and Learning. *Educational Technology & Society*, 15 (3), 190–201.
- [40]. Vincze, Anikó (2016): The Relationship between Educational Inequalities and ICT Access and Use at Home. *Belvedere Meridionale*, 28(1), 5–26.
- [41]. Whattananarong, K. (2013). The effects of internet-based teaching and learning systems on learners. Department of Technological Education Faculty of Technical Education King Mongkut's Institute of Technology North Bangkok' 1518 Piboonsongkhram Rd., Bangsue, Bangkok 10800, Thailand. [http:// www.seameo.org/vl/internet04/internet.pdf](http://www.seameo.org/vl/internet04/internet.pdf)
- [42]. Yebowaah, F.A. (2018) . Internet Use and its Effect on Senior High School Students in Wa Municipality of Ghana. *Library Philosophy and Practice (e-journal)*. 1817. [https:// digitalcommons.unl.edu/libphilprac/1817](https://digitalcommons.unl.edu/libphilprac/1817)
- [43]. Youssef, A.B. and Dahmani, M. (2010) . The impact of ICT's on students' performance in Higher Education: Direct effects, Indirect effects and Organizational change *\*Research gate*.
- [44]. Zahir, K. M., Razak, K., Chi, L. S., Zainan, N. H., & M. Kasim, N. B. (2018). The Effect of Implementing E-Learning Towards Academic Performance Among the Students of University Malaysia Kelantan. *International Journal of Heritage, Art and Multimedia (IJHAM)*, 1(1), 1-14.