

The Impacts of Digital Literacy Skills Among Students

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ABSTRACT

Digital literacy means having the skills you need to live, learn, and work in a society where communication and access to information is increasingly through digital technologies like internet platforms, social media, and mobile devices. This paper aims to identify the impacts of digital literacy skills among the students. Based on this paper, digital literacy skills are very much needed in daily life especially for students. Thus, this paper is made to find out the extent to which students' knowledge of digital literacy skills that will give affect to their daily life performance. For the methodology of this conceptual paper, the articles from 2011 until 2020 were reviewed as a part of the literature review that fully focus on the deep meaning of digital literacy skill, impact of digital literacy skill and the student performance. Beside that, various online sources such as trusted website also were included in order to find an information and expand the ideas about the writing of the paper. The purpose of this journal paper is to look into the effects of students' digital literacy skills. Researchers discovered that each student's success in embracing the new learning standard varied depending on their digital literacy capabilities. There are various conclusions that can be drawn from this study, including the effects of digital literacy on pupils and the more prevalent usage of technology and the internet in this COVID-19 environment.

Keywords: Digital literacy skills, Impact digital literacy, Digital literacy, Literacy skills, Digital

1.0 INTRODUCTION

While the word “literacy” alone generally refers to reading and writing skills, when you tack on the word “digital” before it, the term encompasses much, much more. Reading and writing are still very much at the heart of digital literacy. But given the new and ever-changing ways we use technology to receive and communicate information, digital literacy also encompasses a broader range of skills everything from reading on a Kindle to gauging the validity of a website or creating and sharing YouTube videos. The American Library Association’s digital-literacy task communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills (Liana, 2016). Digital literacy means having the skills you need to live, learn, and work in a society where communication and access to information is increasingly through digital technologies like internet platforms, social media, and mobile devices (Western Sdyney University, 2020).

In 21st century, digital literacy plays an important role in defining a student’s chances of success both in university and throughout their lives. The progress of technology and the internet’s expanding significance in our society has made digital literacy an essential skill for everyone. Digitally literate’s students understand how to locate and consume digital materials. They understand how to develop, convey, and distribute digital material. Students who are learning and undestand the digital literacy know the essentials of Internet safety, such as how to create secure passwords, how to understand and use privacy settings, and what to publish and what not to post on social media. In today's information age, almost every job requires some form of digital interaction, so teaching students how to find, evaluate, communicate, and share online content is critical to their future success and responsibility..

The objective of this article is to investigate “The Impacts of Digital Literacy Skills Among Student”. Researchers find that the students performance in accepting the new norm of learning were different in each person based on their digital literacy skills. Digital literacy skills are very much needed in daily life especially for students. This is because the existence of the COVID-19 crisis that growing every day has caused students to study from home. In that case, they require high skills in the use of technology. Thus, this research is made to find out the extent to which students' knowledge of digital literacy skills will affects on their daily life performance.

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will be discussed a literature review as a part of dissertation or the proposal concerning a deep overview to the present or existed studies to see the extent of the digital literacy impact to the students. In essence, a literature review identifies, evaluates and synthesizes the relevant literature within a particular field of research. It illuminates how knowledge has evolved within the field, highlighting what has already been done, what is generally accepted, what is emerging and what is the current state of thinking on the topic. It is also the survey of educational sources that providing the overview in the particular topic. The literature review recognizes the efforts of earlier researchers, assuring the reader that their study is well-thought-out. It is expected that the author has read, assessed, and assimilated a previous work in the subject of study by citing it.

2.2 BACKGROUND OF STUDY

The 21st century is frequently referred to as a technological period. Today, technology plays a critical part in our lives. It is seen as a foundation for economic progress. In today's world, an economy that is technologically deficient can never flourish. This is since technology makes our jobs or task simpler and faster. Rapid advancements in information and communication technologies (ICTs) enhance the working environment and help professionals complete their tasks more efficiently. As a result, major changes have occurred in industry, education, health care, and agriculture as a result of “ICTs.” Moreover, with the introduction of smart phones, human circumstances surrounding the usage of information has completely transformed.

This paper focuses on the impacts of the digital literacy skills among the students. Digital literacy skills give many impacts to students in using the technologies. Having that digital literacy skills make the students know how to use and handle the technologies. Continuous acquisition of knowledge and skills has become necessary to ensure people's integration and responsibility in the society that they belong, as well as the development and sustainability of the economy. (Goulão & Fombona, 2012). In order to deal with the rapid advancement of technology, students must be encouraged and prepared to acquire lifetime knowledge and abilities in the classroom. The present state of knowledge of the idea of digital literacy is defined by complexity and technological skills,

as well as cognitive and psychological components of being digitally literate. (Norazilah and Fazli, 2016).

At the end of last 2019's December, the whole world was shocked and had been plagued by the news of a very dangerous disease that was confirmed as a new kind of novel coronavirus. This virus was officially renamed as COVID-19 by the World Health Organization (WHO). The World Health Organization (WHO) has rated the COVID-19 as a very high global risk and threat since it has been spread and expanded to every countries corner around the globe day by day and become a pandemic. (World Health Organization, 2020). Due to the crisis of COVID-19 now, digital literacy skills are very important for students to solve the work because most of the universities conducting an online distance learning (ODL). This paper tries to help students to develop their digital literacy skills such as library literacy, computer literacy, tool literacy and information retrieval literacy that give many benefits to them. In an advanced century with a wide range of technologies, we recognize that the information we have now is easily surpassed. The new generation has a unique view on how to discover and access information, as well as a unique view on research. They require assistance with information literacy. (Secker, 2010; Cakmak, Özel & Yilmaz, 2013)

2.3 HISTORY OF TOPIC

In the background of its pioneering information literacy, digital literacy is also debated. As a result of war propaganda in the 1930s and the rise of advertisement in the 1960s, media literacy education started in the United Kingdom and the United States, respectively. Deceptive marketing and the rise of multiple modes of media further troubled educators. In order to educate people how to judge and evaluate the media updates they got, educators started to encourage media literacy education.

Marc Prensky, an American writer and speaker in education fields had invented and promote the digital natives, can be defined as a term to describe the generation of people who grow up in the age of ubiquitous technologies, including computer and internet. The application of digital literacy is been practiced for long time-being in various fields. In education, in order to keep up with accelerating technical advances, schools are constantly upgrading their curricula.

This also entails computers in the classroom, the use of instructional technologies for teaching curricula, and the online availability of course materials to students. Students are also taught reading skills such as online authentication of reputable reports, citation of blogs, and plagiarism avoidance. Digital literacy also necessary to help people stay connected, exchange information and buy and sell the goods or service. Employees are supposed to be technologically literate in the new age, with complete technical expertise. Technologically literate are more likely to be economically safe, since in order to perform simple tasks, many occupations need working knowledge of computers and the internet.

2.4 CONCEPT OF TOPIC

The topic is investigating The Impacts of Digital Literacy Skills on Among Students. Individuals' digital literacy skills are critical for enhancing collaboration, community participation, information retrieval, and problem solving skills or interactions skills. (Zhong, 2011). It also assist students in providing library literacy, computer literacy, tool literacy, and information retrieval literacy to their users based on their information and educational requirements. (Emiri, 2017).

Digital literacy is not a novel approach to a student's acquisition of information and knowledge. A fundamental part of digital literacy is the capacity to use technology to allow us to use things correctly. To begin, the most obvious part of digital literacy is access to the internet. In our day, the internet is no more a supplementary tool, but rather a need. (Rahmah, 2015)

2.5 SIMILAR STUDIES ON TOPIC

According to the previous similar study by Scholastica C. Ukwoma and Nkiru E. Iwundu (2016), Because the majority of institutions have adopted online education, they infer that digital literacy skills are critical in the administration of e-learning. They also stated that these abilities provide benefits to university graduates in terms of preparing them for future careers. In addition, by Asad Khan (2020) define that digital literacy abilities are defined as the capacity to recognize, understand, and use digital information, managing, integrating, accessing, retrieving, appraising and assimilating the information in digital platforms.

Furthermore, refer to the past study by Tolga Cakmak, Nevzat Ozel and Muharre, Yilmaz (2013) stated that digital literacy skills give the huge impact in the process to accessing the information with the use of reliable sources. Refer to this article, this skill might give the effects on the use of Open Educational Resources which is the new information resources in learning environment. Definition of digital literacy by Wawta Techataweewan and Ujsara Prasertsin (2017) is the ability to use multiples models likes digital software and hardware that includes cognitive, motoric, sociological and emotional skills. They also stated that digital literacy skills involves four skills of groups which are operational skills, formal skills, information skills and strategic skills.

3.0 RESEARCH METHODOLOGY

This paper seeks and aims to analyse the impact in digital literacy skills among the student in the use of digital platforms especially in the purpose of education. It is also assist the learning process for the students. This is based on the results of this study which included the methods of the content analysis. In literature review section, we are choosing the few previous related article from 2011-2020. The literature review primarily attention on the impact of digital literacy skills for the students. This previous related studies had been search through the platform of ResearchGate. This platform is a social networking site for the scientist and researcher in sharing the paper, question and answer and finding the collaboration.

The selected articles that have being analyse and identifies using a variation of keywords. Using the terms of ‘digital literacy skills’, ‘impact digital literacy’, ‘digital literacy’, ‘literacy skills’ and ‘digital’. The purpose of this few article is to being as the references in completing this study. This selected article was the best selection to be used as a source and reference material. According to the Google Scholar, we are searching some article with the keywords ‘impact digital literacy’ has reached in 1,110,000 search results refer to this topic. Referring to this study in section of abstract, research methodology and result in data analysis of article were being selected because of few reasons. Firstly, the article is used as a references in the literature review section to serve as an initial overview of a topic discussed. In addition, this article is used as a measuring tool on how digital literacy skills use will impact the lives of students especially in the field of learning and education these days. Furthermore, these article also providing the answer for specific questions according to the fact, statistic and background information that stated on the articles. To conclude, this study only focusing on the topic impact of digital literacy skills among the students that can define as the skills having to society communicate and access the information through the use digital technologies.

4.0 DATA ANALYSIS

The data analysis are presented based on the previous study.

Level of study/gender	Frequency	(%)
<i>Level of study</i>		
First year	21	11.4
Second year	21	11.4
Third year	25	13.6
Fourth year	38	20.7
Fifth year	25	13.6
Master's	39	21.2
PhD	15	8.2
Total	184	100.0
<i>Gender</i>		
Female	65	35.3
Male	119	64.7
Total	184	100.0

Table I.
Background
information of the
respondents based on
level of study and
gender

Table I: Background information of respondent based on study and gender

From the previous study, Table I shows the background information of the respondents based on level of study and gender. From the result, we know that 184 respondents have answer that survey. It show that 119 (64.7%) out of 154 respondents are male and the rest are female (65 or 35.3%).

Next, for the level of study, the highest rank is Master's level. A total of 39 out of 184 respondents or 21.2% have took this survey. And the second rank was followed by fourth year level which is 38 respondents or 20.7%. Then, third year and fifth year level shared the same value (25 or 13.6%). It's also happened to first year and second year level where they shared the same value as well as 21 or 11.4%. And lastly, the lowest value of respondents based on the level of study is PhD's level which is 15 out of 184 respondents or 8.2%.

SN	Digital Literacy skills	First year (%)	Second year (%)	Third year (%)	Fourth year (%)	Fifth year (%)	Master's (%)	PhD (%)
a	Using ICT to process and retrieve information	99	117	135	211	123	22.8	87
b	How to ask the right questions to ensure your research provides the results you are looking for	94	106	116	225	144	23.1	87
c	Evaluate websites to know its author, objectivity, currency, coverage, ease of use	124	105	133	171	105	27.6	85
d	To understand digital information from different sources	94	118	142	181	142	24.4	79
e	To create and communicate digital information effectively	110	94	157	157	110	28.3	87
f	To understand and use digital facilities for academic works	88	116	143	204	129	25.2	68
g	Ability to use and produce digital image	100	100	118	164	164	27.3	82
h	Ability to use Google Scholar and other databases for your studies	97	110	131	214	103	24.8	97
i	Ability to make video calls using the internet	102	133	133	194	92	27.6	74
j	Ability to navigate web pages and use links	101	94	116	203	152	23.9	94
k	Ability to upload/download text, video, audio and graphics	91	97	123	208	156	23.4	91
l	Ability to use the internet and your computer safely and securely	94	101	151	195	151	23.9	69
m	To understand the risks and how to protect your personal information	64	121	142	184	128	26.9	92
n	Ability to protect your computer from harmful actions such as spam, viruses, and spyware	94	126	165	158	134	25.2	71
o	Participating in social network for creation and sharing of knowledge	62	109	130	212	158	24.7	82

Note: NB – the percentage was calculated using only the total number that indicated they possess the digital literacy skills as against the total respondents as we did in our first submission

Table II: Digital literacy skills possessed by users based on year of study

Table II showed the digital literacy skills possessed by users based on respondents' level of study. On the result, it's represented almost all values are low because some students are not possessed on digital literacy skills. Despite that, for the master's and fourth year level are different. On this level, students were possessed on some digital literacy skills and the values also showed higher than the others.

S/N	Digital literacy skills	Male N = 119 (%)	Female N = 65 (%)
a	Using ICT to process and retrieve information	112 (94)	58 (89)
b	How to ask the right questions to ensure your research provides the results you are looking for	110 (92)	49 (75)
c	Evaluate websites to know its author, objectivity, currency, coverage and ease of use	75 (63)	30 (46)
d	To understand digital information from different sources	88 (74)	39 (60)
e	To create and communicate digital information effectively	91 (76)	36 (55)
f	To understand and use digital facilities for academic works	104 (87)	45 (69)
g	Ability to use and produce digital image	76 (64)	34 (52)
h	Ability to use Google Scholar and other databases for your studies	101 (85)	44 (68)
i	Ability to make video calls using the internet	65 (55)	33 (51)
j	Ability to navigate web pages and use links	96 (81)	42 (65)
k	Ability to upload/download text, video, audio and graphics	108 (91)	46 (71)
l	Ability to use the internet and your computer safely and securely	111 (93.2)	48 (74)
m	To understand the risks and how to protect your personal information	100 (84)	41 (63)
n	Ability to protect your computer from harmful actions such as spam, viruses and spyware	88 (74)	39 (60)
o	Participating in social network for creation and sharing of knowledge	104 (87.3)	42 (65)

Table III: Digital literacy skills possessed by users according to their gender

From the article that we have studied, Table III represented the digital literacy skills possessed by users according to respondents' gender. From Table III, male students (119 respondents) are more possessed on digital literacy skills than female (65 respondents). There are some skills that possessed by male students and it's showed the highest values. First, male students were possessed on using ICT to process and retrieve information (112 respondents or 94%). Second, ability to use the internet and your computer safely and securely (111 respondents or 93.2%) and followed by how to ask the right questions to ensure your research provides the results you are looking for (110 respondents or 92%). And lastly, 104 respondents of 87% male students are possessed to understand and use digital facilities for academic works and participating in social network for creation and sharing of knowledge.

From the table III, the findings on digital literacy skills possessed by female students showed that some of the students possessed on the skills that enabled them to use ICT to process and retrieve information (58 respondents or 89%). Besides that, 49 out of 65 female respondents (75%) were also possessed on how to ask the right questions to ensure your research provides the results you are looking for and followed by ability to use the internet and your computer safely and securely (48 respondents or 74%). Lastly, female students were possessed with ability to upload, download text, video, audio and graphics (46 respondents or 71%). We also identified that

the female students were less interested and possessed on evaluating websites to know its author, objectivity, currency, coverage and ease of use (30 respondents or 46%).

The knowledge of digital literacy skills give students the opportunities to use technology efficiency and effectively. It involves critical thinking of how to use the technology and to identify the quality of the information whether it relevant or not. In addition, all students at all level should be more learning to improve their digital literacy skills which will always be used in daily life.

S/N Digital literacy skills possessed by users		Possessed (%)	Not Possessed (%)	Effective learning and performance
A	Using ICT to process and retrieve information	170 (92.4)	14 (7.6)	<div>713</div> <div>Table IV. Table of overall digital literacy skills possessed by users of the digital library irrespective of level of study and gender</div>
B	How to ask the right questions to ensure your research provides the results you are looking for	159 (86.4)	25 (13.6)	
C	Evaluate a web sites to know its author, objectivity, currency, coverage, ease of use	105 (57.1)	79 (42.9)	
D	To understand digital information from different sources	127 (69)	57 (31.0)	
E	To create and communicate digital information effectively	127 (69)	57 (31)	
F	To understand and use digital facilities for academic works	149 (81)	35 (19)	
G	Ability to use and produce digital image	110 (59.8)	74 (40.2)	
H	Ability to used Google Scholar and other databases for your studies	145 (78.8)	39 (21.2)	
I	Ability to make video calls using the internet	98 (53.3)	86 (46.7)	
J	Ability to navigate web pages and use links	138 (75)	46 (25)	
K	Ability to upload/download text, video, audio and graphics	154 (83.7)	30 (16.3)	
L	Ability to use the internet and computers safely and securely	159 (86.4)	25 (13.6)	
M	To understand the risks and how to protect your personal information	141 (76.6)	43 (23.4)	
N	Ability to protect your computer from harmful actions such as spam, viruses and spyware	127 (69)	56 (30.6)	
O	Participating in social network for creation and sharing of knowledge	79 (79.3)	38 (20.7)	

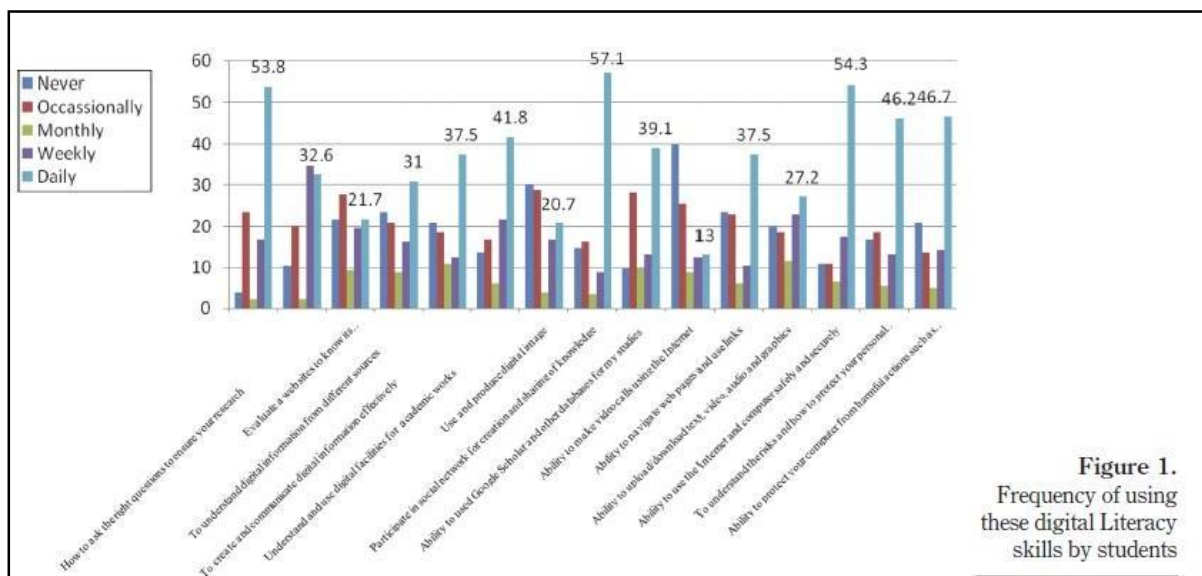


Figure 1.
Frequency of using these digital Literacy skills by students

Figure 1 represented the frequency of using these Digital Literacy Skills by students. The findings showed that almost all of the skills have been used by students daily. For example, the percentage of participating in social network for creation and sharing of knowledge were the highest for the daily (57.1%). This is because students are more interested in social networks such as social media and other applications that easy and comfortable to use. Next, followed by ability to use the internet and computers safely and securely (54.3%). Students are use computers to complete their works and communicate with others. Digital literacy is a useful requirement in a digital environment with new modernization in the world. Digital literacy skills should always up-to-date because technologies are always evolving rapidly. Then, students should prepare themselves that digital literacy skills also develop gradually according to the technologies.

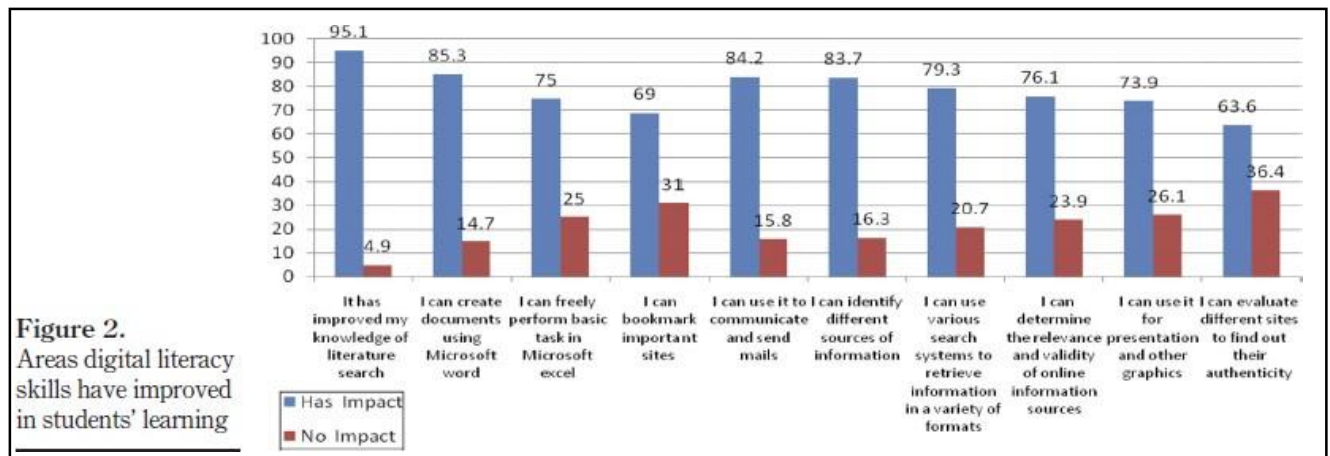


Figure 2 showed the digital literacy skills have improved in students' learning. The result in Figure 2 represented that 95% digital literacy skills has improved students' knowledge of literature search. Next, it followed by 85.3% and 84.2% where they can create documents using Microsoft Word and use digital literacy skills to communicate and send emails. Students also can identify different sources of information (83.7%) when they always learned and practiced the digital literacy skills in daily life. The other impacts also showed the highest values where digital literacy skills have successful improved in students' learning. In the previous study, it identified that digital literacy skills increasing the students' efficiency, effectiveness and performances. Having established that the areas of digital literacy has improved students' learning, this study goes further to find out the extent of the impact on their academic performance.

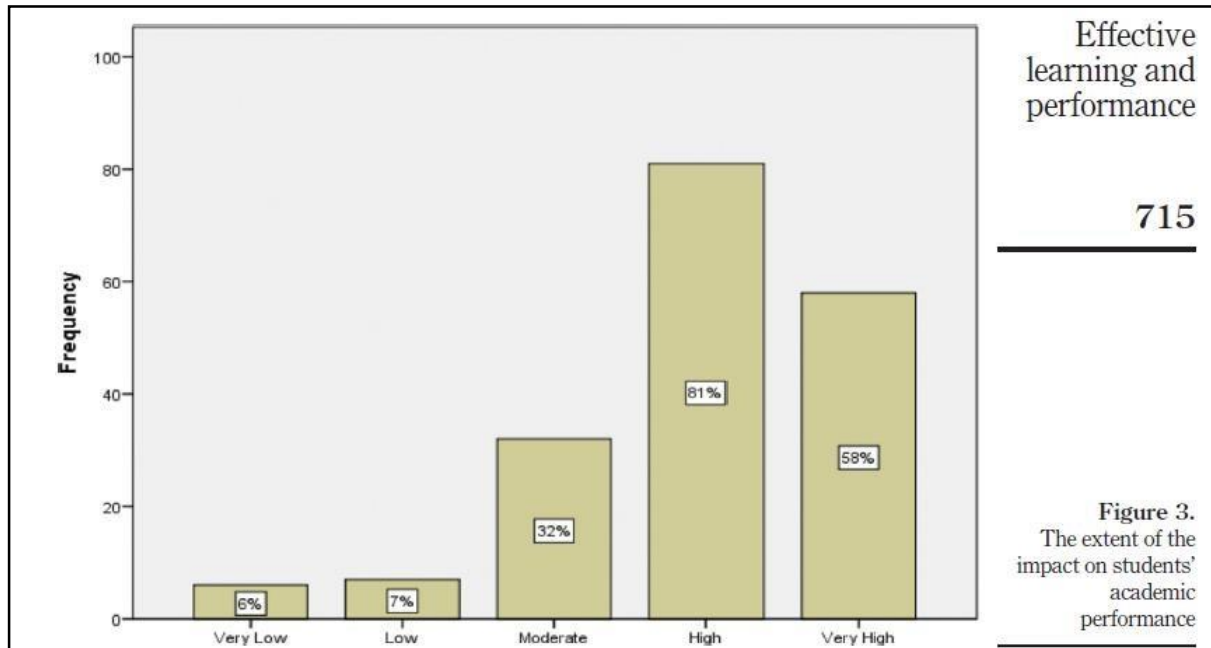


Figure 3 represented the extent of the impact on students' academic performance. From the figure, we seen that digital literacy skills have made the extent of the impact on students' academic performance at the high level. It shown that 81% effective when we practice digital literacy skills in daily life. The study discovered that there have many positive achievements when we learned and applied it in our daily life. The more we possessed to digital literacy skills, the more we get benefits from it.

5.0 CONCLUSION

In conclusion, these digital literacy in terms of skills have a lot of effects on students' lives, especially on the educational. Through this study, there are several things that can be concluded covering several aspects, namely the impact of digital literacy on students and the increasingly widespread use of technology and the internet in this COVID-19 situation. Generally, these digital literacy might provide benefits and positive impact from various angles. In the context of students, it provides benefits such as boost student performance in education, helping them to better understand information digitally, save times because information retrieval time is faster and good in the use of software and technology.

In addition, to conclude in terms of data analyse which is the result of the main article. The impact of this digital literacy skills exactly effect the students for effective learning and performance from the student in University of Nigeria. Percentage indicates that most of students have a skills and knowledge in few of skills stated. Most of this students skilled in using information technology and retrieved data, known in using the right keywords in information search, being able to upload or download the information and able in using internet and computer safely and careful. Hence, digital literacy skills also need to be as an achievement things for the students if they are being able to use that on this 21st century.

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