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# Influence of Electronic Information Technology (EIT) on the Intellectual Development of Students in Kwara State University (Kwasu), Molete, Kwara State

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# Abstract

The study was conducted on the influence of electronic information technology on the intellectual development of students in Kwara State University. The population (972) of the study comprise three departments in Kwara State University, while research table advisor was used to determine the sample size of 210, and questionnaire was the main instrument used in gathering data and SPSS was used to analyse the data. The study discovered that Video Equipment And Multimedia Products And Computer Software, World Wide Web/Internet Services, E-Library and Online Public Access Catalogue, Operating Systems, Computer Hardware, Smartboards and Other Telecommunication Products (E.G. Smartphones) as electronic information technology used by students, while it further revealed poor internet access, negative attitudes and beliefs about EIT, unreliable devices and software, inadequate training or knowledge about the EIT and resistance to change are the obstacle faced by students. The study made some far reaching recommendations that could position and fortify the library in a way that could tackle the challenges associated with fourth industrial revolution.

Keywords: Information Technology; Electronic Information Technology; Intellectual Development; students; University;

#### Introduction

The ICT stands for 'Information and Communication Technologies' and it can be described as electronic information technology that is "Diverse set of Technological tools and resources used to communicate, and to create, disseminate, store and manage information". Electronic information technology has become a very important part of the educational delivery and management processes. Electronic information technology to a great extent facilitates the acquisition and absorption of knowledge, and hence can provide extraordinary opportunities to developing countries for enhancing their educational systems particularly for the underprivileged constituency, and thereby for raising the level of quality of life of their people.

Volman, and Van Eck, (2012) opined that electronic resources are the electronic representation of information. They are available in various forms like e-books, digital libraries, online journal magazine, e-learning tutors and on-line test. Because of the effective presentation with multimedia tools, these e-resources have become source of information. Furthermore, Volman, and Van Eck agreed that electronic resources deliver the collection of information as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology and many more. In addition, electronic information source are a wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used and sometime modified by a computer (Volman, & Van Eck, 2012). According to Arpentieva, *at, al.* (2020), to be literate means having the skills of reading and writing in any language whatsoever. Moreover, information technology literacy can be defined as having the fundamental information about the components forming the information technologies, to have the skills of practicing these components to solve problems in societies facing the information age (Arpentieva, Gorelova, Kassymova, Lavrinenko, Shumova, Malinichev, & Stepanova, 2020).

Bracken (2015), is of the view that Electronic Resources are those resources that deal with both born electronic and digitized materials which can be either accessible from library's in house database or from the world-wide-web. The born electronic materials includes: e-books, e-journal, e-newspaper, e-magazine, e-projects, e-thesis, e-dissertations, e-reports, website, www-resources and other related materials which can be considered necessary by the users, researchers, information professionals or even by the library management itself.

Advancements in technology have enabled new forms of handling information and has created more dynamic and flexible tools for managing and accessible than the print formats. This has created a major shift from the traditional set up of library which focuses on the physical collection of information resources, to a stage where information is predominantly stored in digital formats. This advancement has caused changes both in the way users access information and the way libraries provide and manage resources (Franca, 2017).

Electronic resources are information materials in the library that can only be accessed electronically, with the use of Information and Communication Technology (ICT) facilities (Ani, 2013). Library electronic resources that are often consulted in the University libraries include: Internet, CD-ROM databases, online databases, Online Public Access Catalogues

(OPACs), electronic journals, electronic books and digitized materials. Multiple access speed, richer in content, reuse, timeliness and anywhere access are some of the features of library electronic resources. Library electronic resources according to Yusuf, (2015) and Idih, (2016) are simply referred to as electronic resources or e-resources; they are information stored in electronic format in computer or computer related facilities (CDROMs, digital libraries or the Internet).

#### **Statement of Problems**

It has been observed that upcoming scholars, especially university freshmen and undergraduates often experience difficulty searching and using information effectively. Lack of information literacy skills seem to be at the root of students' search difficulties and poor performance in school. Electronic information resources offer the 21st century students new opportunities that were not available to previous generations, yet number of students leave universities without necessary skills to cope within the information-based society. Despite the success stories by some students on the use of electronic resources in tertiary institutions in Nigeria, it has been revealed by some researchers that constraints in accessing electronic resources include insufficient number of terminals available for use despite high demand, inadequate electricity supply, lack of information retrieval skills for exploiting electronic resources amongst others. Also, other researchers like Oparah and Faloye (2015) observed that the effective use of electronic resources in academic institutions are marred by a variety of factors such as difficulty in getting information due to poor retrieval skills, unfamiliarity with the library environment and resources as well as poor information literacy and evaluation skills. Arising from the foregone, the study is therefore set out to investigate the influence of electronic information technology on the intellectual development of students in KWASU.

# **Objective of Study**

The main objective of this study is to investigate the influence of electronic information technology on the intellectual development of students in KWASU. The specific objectives are to:

- i. Find the electronic information technology used by KWASU students;
- ii. Examine the intellectual skills developed through EIT;
- iii. Determine the impact of electronic information technology on intellectual development of students; and
- iv. examine the challenges of using electronic information technology.

## **Research Questions**

The following research questions are raised to guide the study:

- i. What are the electronic information technology used by KWASU students?
- ii. What are the intellectual skills developed through EIT?
- iii. What are the impact of electronic information technology on intellectual development of students?
- iv. What are the challenges of using electronic information technology?

#### **Reviewed of Related Literature**

# **Electronic Information Technology (EIT)**

Electronic Information Technology consists of three words, Electronic, Information and Technology. The term electronic refers to any communication of knowledge that is in electronic device or pertaining to the internet, Information refers to any communication or representation of knowledge such as facts, data or opinions in any medium or form, including textual, numerical, graphic cartographic, narrative or audio-visual forms. It occupies a strategic role in the scheme of human existence; through communication of information, development is facilitated. Information means any communication or representation of knowledge in any form. Agomou (2013) refer to information as facts, instructions and processed data that have been organized in any medium or form such organized facts or data which is meaningful to the end users or recipients. It can also be seen as data which has been processed, while technology according to Yusuf (2015) is the systematic application of scientific or other organized knowledge to practical tasks. It can also be seen as the equipment, machine and devices used in the application of knowledge to practical tasks. Technology is the practical form of scientific knowledge or the science of application of knowledge to practical.

Electronic Information Technology has been defined by many authors in different ways; according to Idih (2016) Electronic Information Technology is a faculty or force that is totally permeating concrete and abstract reality and creating a new conception, new forms of interpretation, new ways of management and new insight into our life styles. Robson (2016) defined Electronic Information Technology as the phase that covers all the machineries or skill concerned with the capturing, storage, transmittal or presentation of information.

Olive and Chapman (2016) saw EIT as technology which supports activities involving the creation, storage, manipulation and communication of information together with their related method, management, and application. Osuagwu (2016) agreed with Robson as he saw Electronic Information Technology as the convergence of microelectronics, telecommunications computers, and storage facilities. Ohakwe (2011) on the other hand considered Electronic Information Technology beyond hardware and software. He rather considered it as a process of acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information. Osuwa (2014) defined Electronic Information Technology as the application of scientific study of the art of using skills in making things, the mastery and utilization of manufacturing and industrial methods

The impact of Electronic Information Technology (EIT) is becoming more pronounced worldwide. It has become such that rarely is anything mentioned in any area of human endeavour without reference to this type of technology. EIT cuts across all sectors, and it is becoming the driving force for effective and efficient operations of trade and commerce, government, medicine, education, human resources development, arts and culture, agriculture, national security and other areas of human endeavour. Information and communication technology could be said to encompass all those gadgets that deal with the processing of information for better and effective communication. According to the United Nations (2014), EIT covers Internet service provision, telecommunications equipment and services, Electronic Information Technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network-based information services, and other related information and communication activities.

Yusuf (2015) defined EIT as computer based tools and techniques for gathering and using information. It encompasses the hardware and software, the network and several other devices (video, audio, photographic camera, that can convert information, images, and sound into common digital form. It includes electronic information in processing technologies such as computer and internet, as well as fixed-line telecommunication networks. It is an eclectic application of computing, communication, telecommunication and satellite technology.

Similarly, Ochai (2017) defined EIT as any equipment interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, retrieval, movement, control, display, switching, interchange, transmission, reception of data. In another light, Electronic Information Technology is defined as the full range of electronic technologies and techniques used to manage information and knowledge (UNDP, 2013). Kayoma (2014) stated that EIT are basically information handling tools, a varied set of goods, application and services that are used to reproduce, store, process, distribute and exchange information. Alkadi (2014) defined Electronic Information Technology as a collection of individual technology component that are typically organized into computer based information systems.

More so, Ejide (2012) defined EIT as a set of tools that helps one work with information and to perform tasks related to information processing. And according to Onuma (2017), EIT is concerned with the aspect of managing and processing information through the use of electronics, computers, and computer software to convert, store, protect, process, transmit and retrieve information.

Intellectual development is all about ability of individuals to organise their minds, ideas and thoughts to make sense of the world they live in and intellectual development is about how we use our minds and organises thinking to understand the world around us and it depends upon the student's own pattern of development, the opportunity for playing with technology and experiences of activities and events. Congnitive or intellectual development means the growth of a student's ability to think and reason. It's about how they organize their minds, idea and thought to make sense of the world they live in.

Intellectual development refers to the changes that take place as a result of growth, and experience, in thinking, reasoning, relating, judging, conceptualizing, etc. These are the changes evident in student as a part of intellectual development. Cognitive development is how student think, explore and figure things out. Basically, it is the development of knowledge, skills, problem-solving, and dispositions that help student to think about and understand the world surrounding them. Brain development is part of cognitive development. Intellectual development refers to the development of language, memory and thinking skills.

Electronic information technology (EIT) to intellectual development of students according to Moursund, (2015) is a broad, deep and rapidly growing field of study. It was observed that an increasing number of countries are now undertaking training to develop skills/intellect of students in the use of EIT in learning and other school activities, including classroom management, to ensure the teachers bring their skills to actual classroom teaching (UNESCO, 2013). It has been continuously linked to higher efficiency, higher productivity, and higher educational outcomes, including quality of cognitive, creative and innovative thinking. At present EIT is considered as an important means to promote new methods of intellectual development of students. Pajo and Wallace, (2014) suggested that the use of EIT could improve performance, teaching, and administration, have a positive impact on education as a whole, and develop relevant skills in the disadvantaged communities.

Business educator should use EIT to make the students intellectual development more effective. It also provides students with individualized instructional activities that accommodate differences in student's level of preparation, abilities and motivation to learn (Nwanewezi and Isifeh-Okpokwu, 2018). The EIT facilities used in intellectual development of student process in schools according to (Bandele, 2016); (Bolaji and Babajide, 2013) and (Ofodu, 2017) include; radio, television, computers, overhead projectors, optical fibers, fax machines, CD-Rom, Internet, electronic notice board, slides, digital multimedia, video/VCD machine and so on. They have provided innovation for intellectual development of students, and have engendered advances in research about how people learn, thereby bringing about rethinking the structure of intellectual development of students (Lopez, 2013).

In influencing intellectual development of student's communication process takes place which requires plenty of data to be stored for retrieval as and when required, to be disseminated or transmitted in the desired format. The hardware and software like Over Head Projector, Television, Radio, Computers and related software are used in the developmental process. However, EIT today is mostly focused on the use of Computer technology for processing the data. In this context, according to Trucano (2013) the advantages of EIT on intellectual development of students can be listed down as follows:

- 1. quick access to information: Information can be accessed in seconds by connecting to the internet and surfing through Web pages,
- 2. easy availability of updated data: Sitting at home or at any comfortable place the desired information can be accessed easily. This helps the students to learn the updated content.

Teachers too can keep themselves abreast of the latest teaching learning strategies and related technologies,

- 3. connecting geographically dispersed regions: With the advancement of EIT, education does not remain restricted within four walls of the educational institutions. Students from different parts of the world can learn together by using online, offline resources. This would result in the enriching learning experience. Such collaborative learning can result in developing:
  - a. divergent thinking ability in students
  - b. global perspectives
  - c. respect for varied nature of human life and acculturation
  - d. facilitation of learning
- 4. catering to the individual differences: EIT can contribute in catering to individual needs of the students as per their capabilities and interest. Crowded class rooms have always been a challenge for the teacher to consider the needs of every student in the class,
- 5. wider range of communication media: With the advent of EIT, different means of communication are being introduced in the teaching learning process. Offline learning, online learning, blended learning are some of the resources that can be used in educational institutions. Collaborative learning, individualized learning strategies can enhance the quality of group as well as individual learning with the real society.

This can ensure the applicability of knowledge. Wider learning opportunities for students application of latest EIT intellectual development of student's has provided many options to the learners to opt for the course of their choices. Many Online courses are available for them to select any as per their aptitude and interest. Students can evaluate their own progress through different quizzes, ready to use online tests. This can ensure fulfillment of the employment required in the job market thus minimizing the problem of unemployment. It can also provide more efficient and effective citizens to the society as per the changing needs (Trucano, 2013).

Although EIT has the potential to improve the intellectual development of students to a great extent, some countries are far from reaping these benefits because of certain barriers. Benzie, (2015) opined that understanding the pedagogical, psychological and cognitive barriers to the successful use of electronic information technology may be a vital precondition for improving the utilization of computers and other technological aids in the developmental process. The barriers are categorized as external and internal barriers (Keengwe, and Onchwari 2018). According to Snoeyink and Ertmer (2014), the former include lack of equipment, unreliability of equipment, lack of technical support and other resource-related issues. The later include both institution level factors, such as organizational culture and lecturer level factors, such as beliefs about teaching and technology and openness to change. How these external and internal barriers negatively influence the use of EIT on intellectual development of students are described below:

Where constant electricity is absent, and provision is not made for alternative power supply, it becomes a challenge. Implementing EIT demands other resources, such as computers, printers, multimedia projectors, scanners, et cetera which are either not available or in short supplies in most of the developmental institutions. Besides, EIT requires up-to-date hardware and software resources is a key feature in the diffusion of technology (Gulbahar 2017) but a rare experience in developmental institutions.

Sharma (2019) states that the most notable of the barriers to the use of EIT on intellectual development of students in developing countries seems to be the political will of the people in the corridors of power. The allocation of sufficient funds for the educational sector which can be seen from the budgetary allocations in various countries. Mumtaz (2013) stated that many scholars proposed that the lack of funds to obtain the necessary hardware and software is one of the reasons students do not use technology or develop interest in the use the of technology. Afshari, Bakar, Su Luan, Samah, and Fooi (2019) stated that efficient and effective use of technology depends on the availability of hardware and software and the equity of access to resources by students. Although many stakeholders, educators, government, in developing countries, consider that EIT investment enhances the instructional use of computers and improves teaching and learning, they neither provide computer tools in the classroom (Candiotti and Clark, 2018) nor provide state-of- the-art technology in order to make desirable learning changes in education (Kent and McNergney, 2019).

Students attitudes have been found to be major predators of the use of new technologies in instructional settings (Musa, 2017). Mumtaz (2013) stated that, student beliefs about teaching and learning with EIT are central to integration. To be successful in computer use and integration, students need to engage in conceptual change regarding their beliefs about the nature of learning, the role of the lecturers, and their role as students. Hence the successful use of EIT into classroom largely depends on student's attitudes and belief relating to these. In fact, it has been suggested that attitudes towards computers affect teachers" use of computers in the classroom and the likelihood of their benefiting from training.

Moreover, Harrison and Rainer (2012) found that participants with negative computer attitudes were less skilled in computer use and were therefore less likely to accept and adapt to technology than those with positive attitudes. They concluded that changing individuals" negative attitudes are essential for increasing their computer skills. Therefore, if students want to successfully use technology in their classes, they need to possess positive attitudes toward use of technology. Such attitudes are developed when students are sufficiently comfortable with technology and are knowledgeable about its use (Afshari et al 2019).

Integrating technology in the curriculum requires knowledge of the subject area, an understanding of how students learn and a level of technical expertise (Lefuma 2017). Moreover, Berner (2013) found that the student's belief in their computer competence was the greatest predictor of their use of computers. Therefore, lack of knowledge regarding the use of EIT and lack of skill on EIT tools and software have also limited the use of EIT tools on intellectual development of students.

Students need time to learn how to use the hardware and software, time to plan, and time to collaborate with other students. Students also need time to develop and incorporate technology into their skills. Some students are unable to make appropriate use of technology in their own ways, while others are unwilling to try because of anxiety, lack of interest, or lack of motivation (Duhaney 2014). Nwaokocha (2014) lamented that some business educators in the teaching profession hold to their obsolete ideas and have refused to accommodate changes in the profession. According to him, they often say "this is how we were taught'. Therefore, there are no innovation or dynamism in their dictionaries.

# Research Methodology

Descriptive survey research design was adopted because it will enable researcher to collect large amount of information about the influence of electronic information technology on the intellectual development of students in KWASU. Target population is a large population from which a sample population is selected. The target population for this study include students of library and information science in Kwara State University Malete. According to the annual report of the University, the total number of students in department of library and information science in Kwara State University Malete as at 2022/2023 academic session is 972 across the three levels in the Department of Library and Information Science in Kwara State University, Malete (the University is yet to admit the new students as of the time of this research). Simple random sampling method was adopted to select the sample population for this study. This is to give students of Kwara State University, Malete an equal opportunity of being selected. From all the departments, a total of 210 respondents was drawn to represent the sample for the study, with the help of research advisor. The Instrument used for data collection in this study was questionnaire. The questionnaire was a closed ended questionnaire. Descriptive statistics including percentages and mean were used in analysing the data. Descriptive statistics was adopted because of ease and simplicity to understand. Of 210 copies of questionnaire administered, 179 were completed and retrieved which were used for data analysis.

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

**Demographic information** 

 Table 1:
 Frequency distribution of category of participant

Gender	Frequency	Percentage
Male	62	34.6%
Female	117	65.4%
Total	179	100

The Table 1 above shows that larger ratio of the respondents was female 117(65.4%) while the remaining 62(34.6%) were male. This implies that majority of respondent were female.

 Table 2:
 Frequency distribution of category of participant

Age	Frequency	Percentage
16-20	64	34.6%
21-25	83	46.4%
26-30	21	11.7%
31-35	13	7.3%
Total	179	100

Table 2 revealed the distribution of the participant by age. A total of 64(34.6%) of the respondent were of the age range of 16-20years, 83(46.4%) are of the age range of 21-25years, while 21(11.7%) were of the age range of 26-30years, more so, 13(7.3%) were 31-35years. This show that the largest percentage of the respondents for this study are of the age range of 21-25years follow by 16-20years counterpart.

**Table 3:** Frequency distribution of respondent by Level

Age	Frequency	Percentage
100L		
200L	75	41.9%
300L	55	30.7%
400L	49	27.4%
Total	179	100

From Table 3, the analysis shows the distribution of the respondents by their level. A total of 75(41.9%) of the respondents are in 200L, 55(30.7%) of the respondents are 300L, more so, 49(27.4%) of the respondents are in 400L. Essentially, the largest percentage of the respondents for this study is two hundred level students followed by three hundred level student's counterparts.

# Analysis of the data on research questions, interpretation and discussion of findings

**Research Question 1:** what are the electronic information technology used by KWASU students?

Table 4: The electronic information technology used by KWASU students

STATEMENTS	SA	A	D	SD	$\bar{x}$	S.D
Computer hardware	142(87.3%)	37(12.7%)	-	-	3.03	0.89
Computer software	173(97.0%)	6(3.0%)	-	-	3.04	0.90
Operating systems	158(91.3%)	21(8.7%)	-	-	3.02	0.93
Web base information an d applications	113(61.3%)	66(38.7%)	-	-	3.02	0.96
Smartboards and other tel ecommunication product s (e.g. smartphones)	138(76.0%)	41(24.0%)	-	-	3.15	0.89
Video equipment and mu ltimedia products	173(97.0%)	6(3.0%)	-	-	3.02	0.93
E-Library and Online Pu blic Access Catalogue	164(95.0%)	15(5.0%)	-	-	3.02	0.93
World Wide Web/Interne t Services	167(96.0%)	12(4.0%)	-	-	3.03	0.89

**Key:** SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

The data in Table 4 show the electronic information technology used by KWASU students, the highest number 173(97.0%) of respondents indicated Video equipment and multimedia products and Computer software as electronic information technology used by the students in KWASU, this is closely follow by 167(96.0%) who indicated World Wide Web/Internet Services, more so, 164(95.0%) who revealed E-Library and Online Public Access Catalogue, while 158(91.3%) indicated Operating systems, 142(87.3%) indicated computer hardware, while 138(76.0%) indicated Smartboards and other telecommunication products (e.g. smartphones). In a related study by Bandele (2016); Bolaji and Babajide (2013) and Ofodu, (2017) include; radio, television, computers, overhead projectors, optical fibers, fax machines, CD-Rom, Internet, electronic notice board, slides, digital multimedia, video/VCD machine and so on are the electronic information technology use by students.

**Research Question 2:** what are the intellectual skills developed through EIT?

**Table 5:** The intellectual skills developed through EIT

STATEMENTS	SA	A	D	SD	$\bar{x}$	S.D
Computer literacy skills	143(79.7%)	36(20.3%)	-	-	2.50	1.11
Database/Information searching skills	131(71.0%)	48(29.0%)	-	-	2.44	1.03
Critical thinking	83(49.3%)	17(10.7%)	48(23%)	31(17%)	2.42	1.05
Creativity skills	127(68.0%)	41(24.0%)	11(8.0%)	-	2.50	1.11
Problem solving skills	151(86.7%)	28(13.3%)	-	-	2.61	1.08
Collaboration skills	111(54.0%)	68(46.0%)	-	-	2.42	1.05
Effective Communication/ Dissemination of information skills	151(86.7%)	28(13.3%)	-	-	2.61	1.08
Good Reading ability	158(91.3%)	21(8.7%)	-	-	2.42	1.05

**Key:** SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

Table 5 shows the intellectual skills developed through EIT, the following results were obtained by using percentage scores indicated on Table: majority of the respondents 158(91.3%) indicated Good Reading ability as intellectual skills developed through EIT, followed by 151(86.7%) who indicated Effective Communication/Dissemination of information skills and Problem solving skills 143(79.7%) indicated Computer literacy skills as intellectual skills developed through EIT possess for using electronic information technology, more so, 131(71.0%) indicated that Database/Information searching skills, followed by 127(68.0%) of respondents indicated Creativity skills while 111(54.0%) of respondents that revealed Collaboration skills and 83(49.3%) indicated that Critical thinking as an intellectual skills developed through EIT. In a related study by Pajo and Wallace, (2014) suggested that the use of EIT could improve performance, teaching, and administration, have a positive impact on education as a whole, and develop relevant skills in the disadvantaged communities.

**Research question three:** what are the impacts of electronic information technology on intellectual development of students?

**Table 6:** The impact of electronic information technology on intellectual development of students

STATEMENTS	SA	A	D	SD	$\overline{x}$	S.D
EIT preserves information and	133(76.0%)	46(24.0%)	-	-	2.61	1.08
thereby improves my intellectual						
development						
EIT smooth the progress of easy	147(83.7%)	32(16.3%)	-	-	2.51	1.11
replication of new media and shari						
ng of data						
EIT assist in improving student's	113(61.3%)	-	66(38.7%)	-	2.44	1.03
memory skills						
EIT helps develop problem-	127(73.0%)	52(27.0%)	-	-	2.42	1.05
solving skills in students						
EIT caters for the individual	97(52.0%)	82(48.0%)	-	-	2.50	1.11
differences of students						
EIT foster the development of 21st	89(49.3%)	77(42.7%)	13(8.0%)	-	2.50	1.11
century skills						
EIT has greatly contribute to	118(71.0%)	61(29.0%)	-	-	2.42	1.05
student's motivation for learning						
EIT improves student's attitudes	96(52.0%)	68(39.3%)	-	15(8.7%)	2.61	1.08
and performances						

**Key:** SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

Table 6 shows the impact of using electronic information technology on intellectual development of students in KWASU, the following results were obtained by using percentage scores indicated on Table: majority of respondent 147(83.7%) indicated EIT smooth the progress of easy replication of new media and sharing of data, followed by EIT preserves information and thereby improves my intellectual development 133(76.0%), and EIT helps develop problem-solving skills in students 127(73.0%), more so, 118(71.0%) indicated EIT has greatly contribute to students motivation for learning, while 113(61.3%) indicated EIT assist in improving students memory skills. This study is in line with (Lopez, 2013) submitted that EIT provided innovation for intellectual development of students, and have engendered advances in research about how people learn, thereby bringing about rethinking the structure of intellectual development of students and Nwanewezi and IsifehOkpokwu, (2018) also submitted EIT provides students with individualized instructional activities that accommodate differences in student's level of preparation, abilities and motivation to learn.

**Research question four:** what are the challenges of using electronic information technology?

**Table 7:** The challenges of using electronic information technology

ITEMS	SA	A	D	SD	$\overline{x}$	S.D

Inadequate training or knowledge	138(76.0%)	41(24.0%)	-	-	3.03	0.89
about the EIT						
Insufficient Funding	114(66.3%)	65(33.7%)	-	-	3.04	0.90
	<u> </u>					
Availability of constant electricity	97(52.0%)	82(48.0%)	-	-	3.02	0.93
Negative Attitudes and Beliefs	164(91.3%)	15(8.7%)	-	-	3.02	0.96
about EIT						
Unreliable devices and Software	160(88.3%)	19(12.7%)	-	-	3.15	0.89
Lack of time to spare in learning	94(53.3%)	85(47.7%)	-	-	3.02	0.93
the EIT tools						
Poor Internet Access	172(97.0%)	7(3.0%)	-	-	3.02	0.93
Resistance to Change	138(76.0%)	41(24.0%)	-	-	3.02	0.95

**Key:** SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

Table 8 shows the challenges of using electronic information technology, it was revealed that majority of the respondents 172(97.0%) revealed Poor Internet Access followed by 164(91.3%) indicated Negative Attitudes and Beliefs about EIT, more so, 160(88.3%) indicated Unreliable devices and Software, while 138(76.0%) indicated Inadequate training or knowledge about the EIT and Resistance to Change and 114(66.3%) indicated Insufficient Funds. This study is in line with Afshari, Bakar, Su Luan, Samah, and Fooi (2019) stated that efficient and effective use of technology depends on the availability of hardware and software and the equity of access to resources by students, while Snoeyink and Ertmer (2014) opined in is study that the major obstacles faced by students on the use of electronic information technology include lack of equipment, unreliability of equipment, lack of technical support and other resource-related issues. The later include both institution level factors, such as organizational culture and lecturer level factors, such as beliefs about teaching and technology and openness to change.

### **Conclusion and Recommendations**

Based on the findings of this study, the following conclusions were drawn from the outcomes of the study. The influence of electronic information technology on the intellectual development of students in KWASU, electronic information technology has very little influence on intellectual development of students in KWASU. In the recent knowledge—based society, the need for universal access and use of electronic information technology is imperative for students to redefine their stand in terms of intellectual development. It is obvious from the finding of this study that most students in KWASU have access to electronic information technology but they are not adequately using these resources for their intellectual development of students in KWASU. In addition to the findings of this study, quite a lot of electronic information technology were made available and frequently used in KWASU. In spite of this fact, the study documented some obstacle faced by students in using these EIT this

may be due to unreliable devices and Software. As deduced in this study, the students have access to electronic information technology and use them for other purposes. The information professional with high computational skills are more likely to use the electronic information technology more than those with inadequate ICT skills.

The following recommendations are made based on the findings of the study:

- 1. Negative Attitudes and Beliefs about EIT, Inadequate training or knowledge about the EIT, Resistance to Change has been identified as another challenges of using electronic information technology, hence, the university authority couple with university librarian needs to organize orientation for the students of Kwara State University.
- 2. The study revealed unreliable devices and Software and insufficient funds, hence, funds should be made more available to equip e-libraries with sophisticated technological equipment needed for electronic information technology,
- 3. Access to internet should be made available at little or no cost for students in other to use electronic information technology often.
- 4. electronic information technology should be made available for students' of Kwara State University thereby enhance intellectual development among the students.

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