THE IMPACT OF TECHNOLOGY ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS: CASE STUDY OF THE MANAGEMENT UNIVERSITY OF AFRICA

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT AND LEADERSHIP IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF DIPLOMA IN INFORMATION COMMUNICATION AND TECHNOLOGY OF THE MANAGEMENT UNIVERSITY OF AFRICA

APRIL 2021

DECLARATION

Declaration by the Candidate

I declare that the research has not been done by me alone and has not been submitted elsewhere

Sign: …… Date……

Declaration by the Supervisor

The project has been approved as the university supervisor

Sign: ……. Date: …….

DEDICATION

I dedicate this project to my family who has been standing with me all along. Additionally, I dedicate this project to my lecturers and the university.

ACKNOWLEDGEMENT

The accomplishment of this project was with the full support of colleagues and classmates and lecturers. The journey has not been easy, but with your dedicated support, I was able to finish the project.

Finally, to my family who have been very support in the project development endeavor, and, when times got rough, they duly noted and appreciated their effort. The relief of knowledge is very great and the comfort of their presence is immense. I shall keep working hard.

ABSTRACT

The quest for new knowledge is an innate essential of every human being. Throughout the human beings' existence, it has been an accepted fact and an agreeable belief that whomever knows more has more in all aspects of society. Knowledge drags along with-it power, skill, wealth and an overall better view and approach to life issues

It is based on this fact that one of the greatest investments in a society is education. The more input into education, the more output it brings.

Governments and organizations alike have included education as a basic human right in their constitutions, rules, policies and statutes.

Technology has swiftly and with an immense pace taken over every aspect of the society, and education is no exception. It has been used to augment the traditional teaching methods. Technology is a facilitator in several ways, by generally introducing new models and especially in a teacher-learner-content circle.

The impact of technology cannot be underestimated, it has the power to alter the model of teaching by introducing a new approach to teaching. The model offers a link between facilitators and the student with content, and professional sources of educational materials to personalize the learning process.

The end result of learning is to gain experience. At this note therefore, an individual should always change and alter the thinking habits to the surrounding environment. Additionally, learning is shown clearly by the demeanor of the person.

Education is a basic need of the society, and societies can utilize it as a driving to gaining economic and social milestones in terms of development. A view of highest performing country economies and GDP's point to the fact that most of the populace are highly educated. In some instances, some societies regard and equate education to life.

Many institutions, over the time, have integrated both the eLearning and face to face learning modes, so as to fit in every need of students from different walks of life and interests too.

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1. CHAPTER ONE

1.1. INTRODUCTION

The chapter discusses the need for this study. It briefly explains the essence of the study which includes the purpose, significance, problem statement, scope and the limitations of the study.

1.2. Background of the Study

Education is a basic human right. The universal declaration of human rights declaration admits that each and every individual has a right to basic formal education. The bill in article 26 is universally accepted as it was agreed upon and drafted by professionals from different regions in terms of countries, cultures and backgrounds (Balka, 2011).

The declaration further states that elementary education should be compulsory. The end game of the declaration and the essence of having education as compulsory was to direct it to development of the general welfare of the society.

The society and most specifically, students and teachers must come to terms and embrace modern educational pedagogical principles. Traditionally, teachers would use pens, papers, books, chalkboards and blackboards whenever it was convenient. In the digital age however, a merge between the above modes and a number of special technologies has to be embraced.

Education goes beyond learning in a class setup. It is inclusive of adapting to different life environments, i.e., socio-economic development and life skills.

Over the last thirty years or so, ‘learning’ has become one of the most used words in the field of education. In the pre-computer era, conventional pedagogy was applied in a teaching setup. Sharing information was on a one-on-one limited method, and thus teachers must develop a specific relationship with their learners (Bray, 2012).

The use of technology as a driving force in class for learning is unprecedented, yet, its impact is projected to rise in use and the end results.

1.3. Statement of the Problem

According to Cuff (2014) technology has been around for some time now, and it has transformed many aspects of the society. In education, technology has been used to provide learning environments and even expand opportunities. In order for schools to reap the benefits of technology in class, teacher-technology relationship must be initiated.

Adoption of technology in class has faced more than enough challenges. Budgeting is of concern since platforms used to integrate technology and education can be quite expensive especially in third world countries.

The attitude towards full use of technology has not been embraced. The knowledge of various technological operations has been a major reason why the technology has not fully utilized even in institutions of higher learning (Elammari et al, 2019).

The practice of education and learning has long since existed, yet, the acceptance of technology to facilitate learning has been ongoing. This is affected by the fact of merging between the usual conventional methods and the new technological approach.

1.4. Objectives of the Study

The diversity of technology cannot be ignored and the benefits that it brings to the table cannot be undermined.

1. To find out significance of technology in university education
2. To discover impact of technology to student's performance
3. To establish the cost implications of technology
4. To study teacher-student attitude towards technology

1.5. Purpose of the Study

To study the significance and effectiveness of using technology in a class environment. From elementary level to post-doctoral degrees, technology has played an important part in facilitating teaching practices and transfer of knowledge.

The research also underlines that fact that traditional modes of teaching that included the use of paper and in essence the research also recommends how research process should be done with the aid of technology and to reap the benefits to the maximum.

1.6. Research Questions

1. What is the significance of technology in university education?
2. What is the impact of technology to student's performance?
3. What are the cost implications of technology?
4. What is the teacher-student attitude towards technology?

1.7. Significance of the Study

Learning is a continuous or one time change in knowledge or behavior due to experience. Alameda (2018) admits that the potential for eLearning is quite huge and more so expected to grow significantly in the years to follow.

The significance in this case study and research is to lead to a conclusion that will convince teachers and learners into embracing technology in learning institutions. In the initial stages, many of the populace used the readily available convenient method of teaching; the available conventional method, but technology is offering a new dynamic of education. Technology has broadened access to provision of education and altered the learning styles and the options for degrees. Technology forces everyone, albeit by design, to note that there is a lot of importance of technology to their involvement in education.

1.8. Scope of the Study

The scope of the study revolves around the boundaries and the confines which the study shall carried out and achieved. There is an importance to realize that the research was conducted in a scope setup which is achievable in the defined parameters.

New technologies provide new opportunities. Technology in some way reduces the burden of distance and speed, and arguably, cost. To utilize technology teachers must answer many questions, one of which is what the students really want in their studies.

In terms of sample size, the researcher selected a sample size of 60 respondents, selected randomly. In regards to physical location of the research population, the researcher chose The Management University of Africa as a case study.

1.9. Limitations of the study

Bogoviz et al, (2019) suggests that along the research process, just like any other research, the researcher faced a number of limitations since educational technology is a really broad topic.

1.9.1. Sample size

The sample size of population represented a specified set out respondents that will characterize the larger population and lead up to conclusions. The main reason for the small size of sampled population was the changing nature of the global setup and the protocols put up by governments as a result of COVID 19 pandemic.

1.9.2. Time limits

Based on the strict timelines, the research came to conclusion, yet if the researcher had more time, the result would have been more reliable and authoritative at a higher percentage than the current.

1.9.3. Budget

Research and research process is costly. The budgetary constraints made some limitations to the researcher. Budgets consists of two categories: direct and indirect.

2. CHAPTER 2

2.1. LITERATURE REVIEW

2.2. INTRODUCTION

Kathy (2018) studies that technology creates a lot of opportunities. If students, scholars and pupils exploit this then they can create a very bright future. The quest for success in the job market or in the business world has made it very competitive, and makes it necessary that employee should be highly skilled.

Kenya recognizes the essence of quality education to achieving the vision 2030. There are several systems that have been applied to foster the achieving of education objectives. An information management system has been put in place to transform the quality of education. The system provides real time data and the administration can monitor aspects as attendance, enrollment and the allocation of teaching staff to various locations. It allows the process to be streamlined and easily planned, budgeted and controlled.

The expansion that has recently been witnessed in the Kenyan education sector is unprecedented. Initially, in 2005, there were countable public universities, just five, and today, it has increased to 22 and there are plans to have additional 20 new ones. The education in the university level has grown because the existing colleges have been upgraded. There are other additions to the universities; the mushrooming of constituent colleges and private universities: private universities are 17, and other constituent colleges of private universities are 14. Other institutions operate on letters of interim authority (Kronman, 2007).

2.3. THEORETICAL LITERATURE REVIEW

2.3.1. Learning and education

Education is a process, and, the process for transfer of knowledge, and exchange of skills and ideas. This happens from generation to generation. On the other hand, the learning is the acquisition of values and skillsets.

Learning takes any forms because it has not procedure set standards. The essence of tutors and lecturers have the duty of imparting education and at other times the individual ought to learn from the surrounding environment (Bogoviz et al., 2019).

In order to be effective university should equip students with the necessary knowledge and develop skills, which should in turn lead to creating a practical value in the general wellbeing of the society.

The aim of education is to provide learners with knowledge on a profession, to promote research, and to enable achieve practical realities of education. Education provides a shift in new economic systems.

With education, most graduates especially from the university level earn qualifications and certifications that are recognized even internationally, are offered higher pay and greater financial stability,

2.3.2. Face-to-face learning

Krasovska et al (2021) suggests that face to face has been the mode of learning for centuries and throughout many ages, the learning approach has always been in practice. Traditional education is still dominant in many parts of the world. Increasing competition has led to an increased need for advanced education. This forces would-be employees to seek more and advanced education through higher education al institutions. White collar jobs employees either as managers or at operational level are expected to have a high level of education as compared to other fields.

Education facilitates change within an organization which in another sense assist employees or job workers in in teaching new ways to work or a different method of working in an assignment, especially when someone works as a trainee or as an apprentice.

2.4. TYPES OF EDUCATION

According to Lavrakas (2008) in his study, he observes that education has different meaning based on peoples' perception on various parts of the globe. To some, they see education as a system of training in a classroom setup, and on another hand, it is a life changing experience to others.

2.4.1. Formal

Formal education is systematic in nature, the processes informs that a student attends a school or a university institution with teachers that are trained and equipped with resources and are licensed to teach. In such a case, a student follows a standardized procedures and processes through the class setups.

It follows level by level education process in a class setup where pupils are tested before proceeding to the next level. It is important that school provides an environment for formalities of this kind of education. Many things are learnt in a school, among them basic, academic or other skills. Teachers are qualified to teach in the formal setup, this is facilitated by the formal protocols in place with minimum requirements to be a teacher. It is here that the school instills strict discipline to the students. The teachers engage the students to be aware of facts and engage in the whole educational system process.

2.4.2. Informal

Education can occur in an outside unstructured system, highly spontaneous and is never organized. There are no formal classrooms or exams. An example can be a group of people in a conversation in the market encouraging one another about events that occurred. There is also a feeling of belonging to a group and it works well in a group and conversation.

2.4.3. Non formal

This is a form of education of education that occurs outside a class setup such as adult education, community trainings and second chance education. Non formal education has been in practice for a really long time.

This is regarded as casual informal, where the learners are taken to programs outside their learning curve but in an organized manner. In such case, it includes conferences, workshops, talks, virtual learning environments and trips

2.5. The Competency Based Curriculum (CBC)

The competency-based curriculum has an agenda in place; the idea behind is to engage Kenyans and ensure they become empowered and to follow the requisite ethical considerations of a citizen.

The Competency Based Curriculum (CBC) was introduced in 2017. The education system replaces the old 8-4-4 version which has been in place for 32 years.

The change to 2-6-6-3 was necessitated by the need to ensure students readiness for the employment world and the job industry, in which case the 8-4-4 system did not fulfil. The students are to spend two years as pre-primary i.e. pp1 and pp2, another 6 in the normal primary, and another 6 in the secondary level school. Then there are those who will join the certificate or diploma level will take other courses of technical nature depending on the programme taken (Lavrakas, 2008).

2.6. University Education in Kenya

Kenya recognizes the fundamental need of access to education through learning as the process of adopting knowledge, values and skills.

Education plays a vital part in the life of the students; it assists and guides one to move from one class to another. Whenever an individual gets education, the society gains and leads to great empowerment. This is paramount to the country's growth.

The budget for education was cut by a percentage; 6% in 2015 in the national budget. This means that there is a gap and a mismatch between the enrollment and funding, which in turn leads to heavier burden to the students and stakeholders. This also leads to an overburdened faculty and shortage in infrastructure.

2.7. Technology and education

Moodie (2016) alludes that technology revolution is the reason why there is a massive shift in the mode of operations schools. Technology brought about digital transformation and along with several dynamic shifts. Data storage has been revolutionized and mor importantly the transmission of data.

As the tendency to global computerization and digitization of education grows, university institutions are forced to align and position themselves strategically to embrace the same. Universities take advantage of technology through electronic systems, e-learning systems, internet, online database, electronic digital resources, e-books

2.8. The internet

Lenehan (2015) describes that exchange of information has been brought to a whole new shift by the advent of the WWW (world wide web). The internet has made big changes to the education scene. The internet has a very great potential to change the trajectory of education globally. In essence people and specifically the students prefer the internet to research even the most basic questions, doubts and queries. The internet offers a whole lot range of web browsers among them Google Chrome, Mozilla Firefox, opera, Vivaldi among others.

The amount of information on the internet is unparalleled. Every kind of data is available inclusive of every profession; both verified and verified. Access to internet is now becoming a necessity, the most vital importance is that with all kinds of information accessed, it leads to learning, innovation and general improvement of the wellbeing of the society.

The internet is important to education as it enables students to search for information and research in their areas of specialization. In education, students use it to expand their knowledge on content taught in class based on needs and interests (Lenehan 2015)

Internet has many uses; among them being research, learner-teacher interaction, as a learning tool, learning with multimedia and access to latest updated information. The internet is great tool for providing a level ground for improving the education quality. It paves way for new techniques in

the transfer of knowledge and for learning. It provides immense resources and new platforms for the digital age. The sustainable development achievements are feasible if the internet is fully and functionally utilized.

2.9. eLearning

Information systems are a crucial component in the education practice. It provides an environment that is considered safe for learning and also a space where learning can take place online (McLeod, 2019).

The eLearning platform is that information system which is enabler to training and learning by institutions. eLearning system differ from one situation to another, the features are unique to each and every system.

Educational institutions cannot offer business as usual in college and university classrooms especially in this time and age. Schools ought to embrace technologies as eLearning, online collaboration tools.

McLeod (2019) suggests that with a lot of information systems are available in the market, with many of them competing for superiority are offering a solution for eLearning. In this sense it is important for each institution to select one that addresses the specific needs of each institution.

Online learning platforms have even been diversified to meet the range of needs.

2.10. Online collaboration

Online collaboration is concerned with the access as observed by Ryan (2009) is used majorly for expanding the access of resources and also the content delivery of content at the convenient place and time. Some of the access platforms are radio, TVs, and mobile phones. In such systems, it enables any user to create online courses. On the other hand, however, it makes it hard to increase the effectiveness of online studies. This is because to create an effective information system requires effort, commitment and the content quality should be high.

The effectiveness of an eLearning system is determined by various parameters and various styles for creation of lessons. Other factors as how it is easy to navigate, and several specific functionalities need to be considered. In essence, users must consider a well organized and an intuitive and online and a web-based platform. Additionally, it is paramount that the technical aspect of the information systems is well designed to meet the desired needs.

2.11. Mobile phones

The use of mobile has increased in the recent past, and have become an important part and parcel of the eLearning and online process. This is mainly because of ease of portability so as to maximize ease of access at any location at any time. The mobile phones also offer several and myriad of options for communication (Senadza, 2012).

There are many advantages that are bundled with the use of mobile phones for the learners. Among them being the ease of access and also the availability of updated content, and also, summarized but relevant information which can be easily understood by the learners. Occasionally, the students shall have the opportunity to follow the content at their own speed and pace.

3. CHAPTER THREE

3.1. RESEARCH DESIGN AND METHODOLOGY

3.2. INTRODUCTION

The purpose of this chapter is to discuss the research design and methodology. Research design is the plan on how to achieve the laid-out research questions. On the other had research methodology is the strategy and the ways to implement the research design Rhonda Christensen, (2002). In details, the subject of discussion entails research design, design sample, target population, methods and instrument of data collection and analysis, reliability and validity and lastly the data analysis.

3.3. Research design

A research by Mugenda and Mugenda (2013) suggests that these are the methods used in the process of solving a problem which includes the application of specific procedures and techniques. The researcher aimed at understanding the effect of technology to performance of education in the management university of Africa. Essentially, the research design and methodology are the processes in which it answers the questions on how the researcher will find the data and the techniques in which the data shall be analyzed to reach a definite conclusion.

According Krasovska (2021) A good research should provide sound scientifically proven findings that should entail extensive statistical analysis.

3.4. Target Population

Lavrakas, (2008) observes that the target population is a subset of subjects set out as a representative of the entire bigger population on which conclusion can be drawn from it. The target population has to be scientifically defined to ensure that it provides the most accurate representation of the conclusive results. The geographic and social demographics properties must be separated with a clear delineation.

The researcher sought to make a subset target population by selecting a group of students from the management university of Africa drawn from different level of study and programs. A group of 47 students were selected based on different categories of studies.

In essence, the population size is the number of people that is intended for the study.

Category	Frequency	Percentage (%)
Certificate	11	25.6
Diploma	14	32.6
Undergraduate	15	34.9
Masters	2	4.7
PHD	1	2.3
Total	**43**	**100**

Table 1: Target Population

3.5. Sample and sampling technique

As researched by Goddard and Melville (2001, p.1), the essence and importance of research is beyond just gathering and accumulation of information. It goes beyond the basics into finding the correct answers to pertinent questions, and this will lead to creation of new knowledge in the field of research. The research must prove the validity of the information.

The essence of a sample size is to obtain data from an entirely large group, and the most workable approach is to pick a specific number of a target population to represent the entire research area.

The sample size is the number of responses received from the target population which shall be used to represent a population.

3.6. Instruments of the study

The researcher was determined to gather quality evidence, and to achieve this, questionnaire was the major tool and instrument for collecting data. This is because it is free from bias from the both the interviewer and the respondent, and, therefore the responses are considered as objective as possible. Thus, the information collected is considered factual, hence providing objective conclusions.

Questionnaires gives reliable and dependable data because it gathers primary data directly from the source. A set of series of questions were drafted that required the respondents to fill as correctly as possible as far as their knowledge is concerned.

3.7. Pilot Study

A research by Malmqvist et al, (2019) shows that a pilot study was conducted in a fairly small-scale environment. This is to set ap an anticipation structure for later study and set out an expectation for the final results. The aim is to gather experimental information which shall then be utilized in determining the practicability and viability of the study by determining exclusion and inclusion analysis.

Instruments Validity and Dependability

The research validity is defined as the accuracy of and meaning fullness of the implications gained from the analysis of the results of the research. Validity of an instrument is improved by through supervisor expert judgment. To ascertain the validity of the research, the checking of the questionnaire was done. This was done by checking on the questions asked, on how relevant they are. It was important to check on the linguistics such as the wording and the ventual understanding and interpretation of the questions by the respondents. The dependability of the research was done to reveals areas that might be ambiguous and cause confusion. If such a situation was found, then the questions were reshaped and reworded to have more clear meaning and this will ensure uniformity across the various respondents.

According to Mugenda and Mugenda (2009), the reliability is a measurable activity, by the estend in which the instruments used in the research produce consistent results or the data are constant even after a repeat of the research activity is carried out multiple times. This happened during the phase of the pilot study before the actual process of research began. The research validity and reliability exist in the data collection instruments which must yield information that is not only relevant to the research questions but also correct. Pilot testing was be carried out at The Management University of Africa.

3.8. Data Analysis and Presentation

The collected results and data was processed and analyzed to deliver a meaningful report, conclusion and recommendation. Both qualitative and quantitative data were used to determine the analysis for easy understand.

Data presentation was done through various graphical techniques and basically charts.

3.9. Chapter summary

Balka K. (2011) observes the importance and the essence of research design and methodology in the overall process of research process since it shall be the determining factor in the accuracy of the data collected and the correctness of conclusions.

The chapter was concerned with the processes and techniques of data collection and the presentation of the same. In the next chapter, a discussion on data analysis and presentation shall be done.

4. CHAPTER FOUR

4.1. DATA ANALYSIS AND INTERPRETATION

4.2. INTRODUCTION

The chapter is dedicated to analyzing and interpreting the data that was collected during the data gathering and collection stage. To make a summary that is understandable and meaningful to the research and to provide assessment reports for intended audience. Raw data does not make any sense to a layman and particularly important is the objective of the study in providing inference and to reach a relevant conclusion.

The study sought to resort the confusion about whether the technology affects education.

4.3. Demographics

According to Bell (2008) demographics has an impact to performance by every person in a specified setup. In school and education, gender and age can have an impact on performance assuming every other parameter is made constant.

4.4. Distribution of respondents by program

Technology makes anything organized including improving information system engagement in various operations from maintenance, operations, governance and reporting. The distribution helps to determine the need for technology under different programs.

Category	**Frequency**
Certificate	11
Diploma	14
Undergraduate	15
Masters	2
PHD	1
Total	**43**

Table 2: Distribution of respondents by program

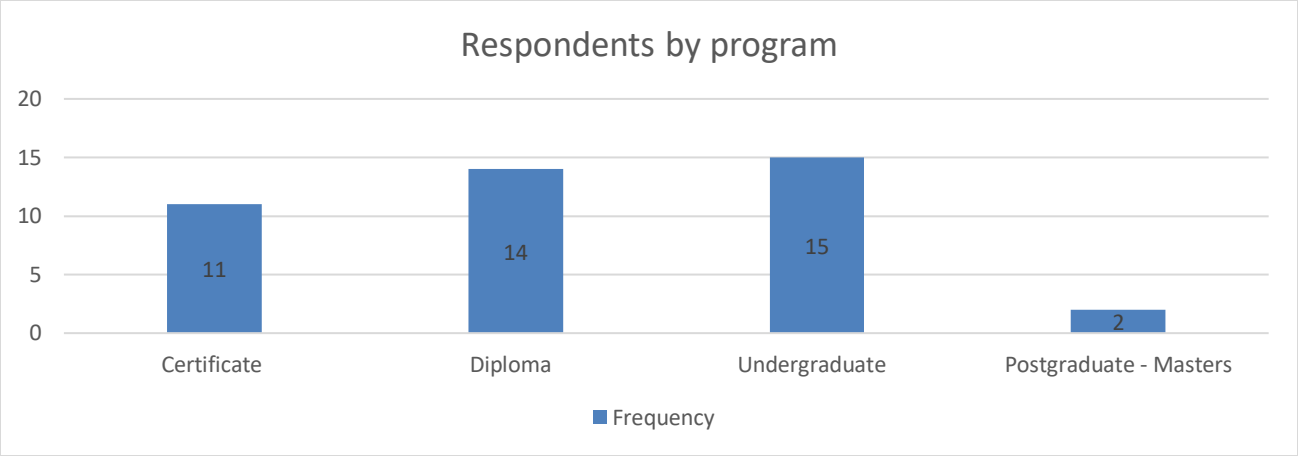


Figure 1: Distribution of respondents by program

4.5. Distribution of respondents by gender

Van Praag et al(2018) studies shows that education is important, and plays a crucial role in the future of the students which benefits in the overall. Based on general statistics, online learning offers an opportunity to create gender parity in education. Gender disparity in college and university is not as high comparatively to primary education. Generally, there are disparities that undermine the capability of the both girls and women's right to education. Such disparities include ethnic background, traditional beliefs, and disability. There are also very detrimental practices by the society that affect access to school and education by women. Such practices include violence that is gender based, discriminations in laws and policies, early marriages. All these issues prevent girls and women into accessing and completing education.

Category	**Frequency**
Male	24
Female	19
Total	**43**

Table 3: Distribution of sampled respondents by gender

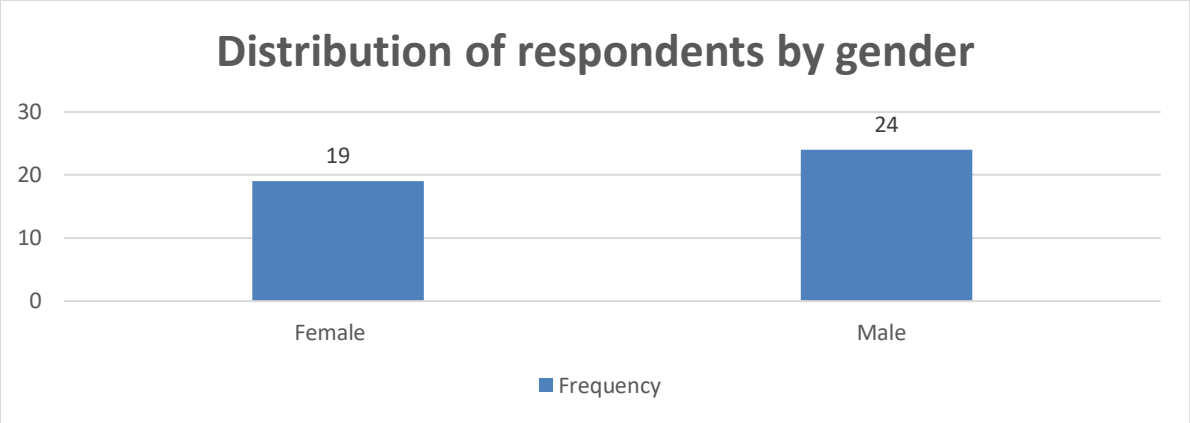


Figure 2: Distribution of respondents by gender

4.6. Distribution of respondents by age

Lenehan et al., (2015) observes that there is a cognitive decline as age advances. Differences in advances by technology has affected the approach to education by different age groups. Younger students are considered to be tech savvy as opposed to their older counterparts who are regarded that at certain age the reception of technology is passive.

Category	**Frequency**
0-20	14
21-33	17
34-42	9
43-51	2
51+	1
Total	**43**

Table 4: Distribution of respondents by age

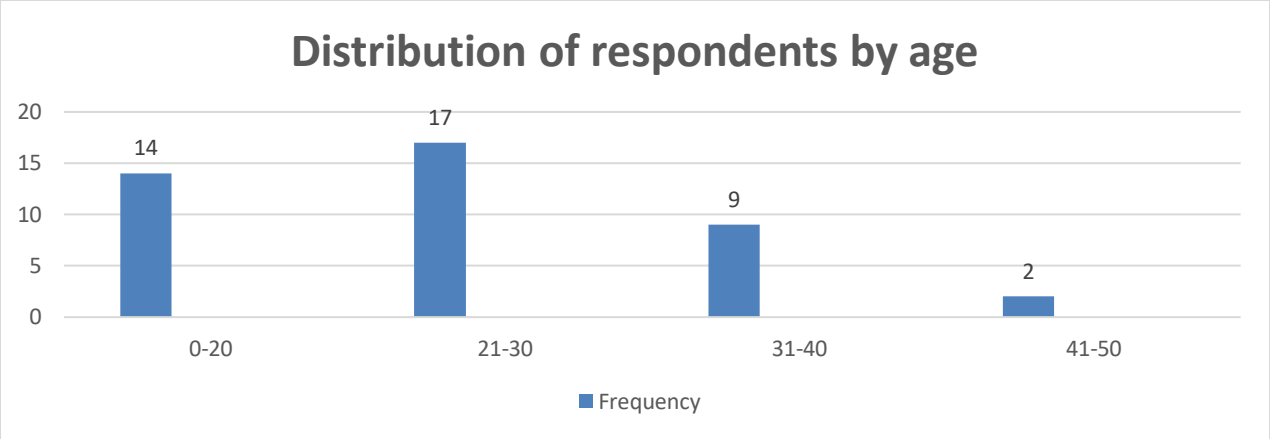


Figure 3: Distribution of respondents by age

4.7. Distribution of respondents by year of study

Rhonda Christensen (2002) alludes that student engagement on the use of technology advances and considered to increase as the year of study progresses. As experience in class continues, the need to engage in technological issues and platforms increases, based on the needs of the classes and incorporation of technology increases as the students progress in year of study.

Based on the respondents, the 2nd year are the highest in number and 4th year being the lowest.

Category	**Frequency**
1st year of study	15
2nd year of study	19
3rd year of study	7
4th year of study	2
Total	**43**

Table 5: Distribution of respondents by the study year

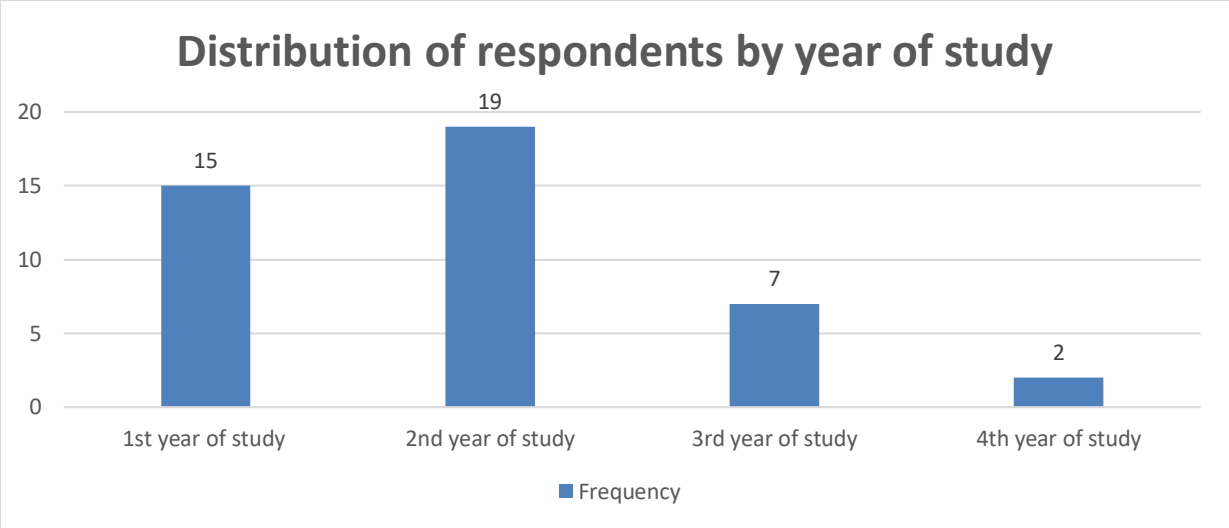


Figure 4: Distribution of the responding sample by year of study

4.8. Distribution of respondents by mode of study

Full engagement of information technology can affect performance in one way or the other. The world is transforming from traditional education to Digital education, eLearning is a system where the student uses technology as the primary mode in the learning process (Stephanie, 2016).

Online and eLearning carries more effectiveness in comparison to the physical face to face learning, this is because it offers freedom of time and location in addition to viewing of multimedia resources at a convenient place.

Category	**Frequency**
eLearning	24
Face-to-face	19
Total	**43**

Table 6: Distribution of respondents by mode of study

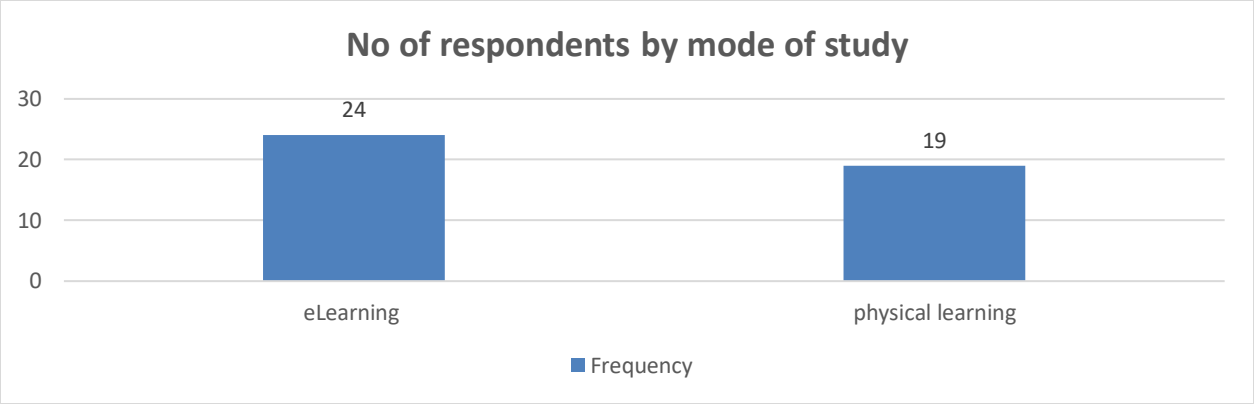


Figure 5: Distribution of respondents by mode of study

4.9. Respondents who own a laptop

Strickland (1990) observes that laptops carry a huge advantage when it comes to offering the online and virtual classes. They are embraced because they offer a lot of convenience in terms of portability. Laptops offers a connection to available wifi connections for internet. Also, it allows students to study at wherever the student find suitable and at whatever time. Laptops also offer easy access to resources of any and every format available.

Category	**Frequency**
Yes	35
No	8
Total	**43**

Table 7: Respondents who own a laptop

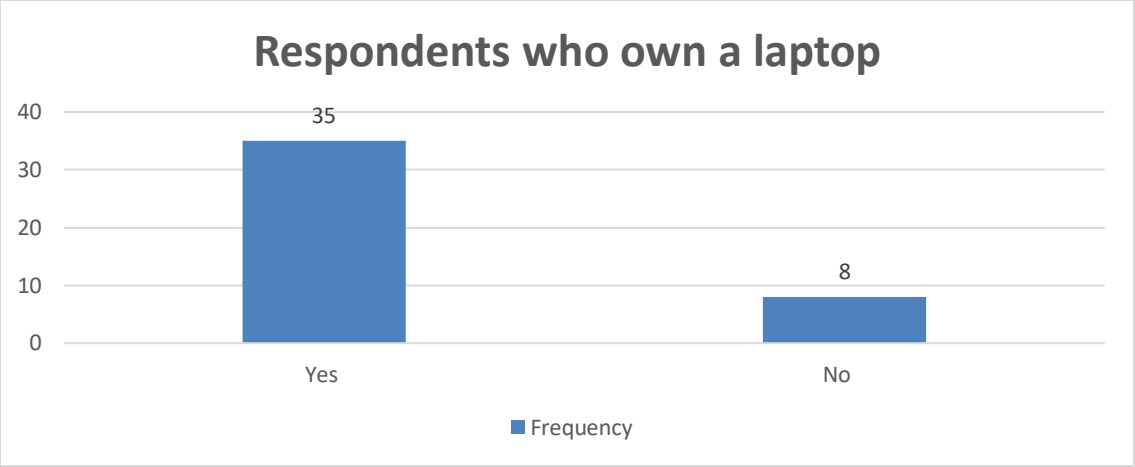


Figure 6: Respondents who own a laptop

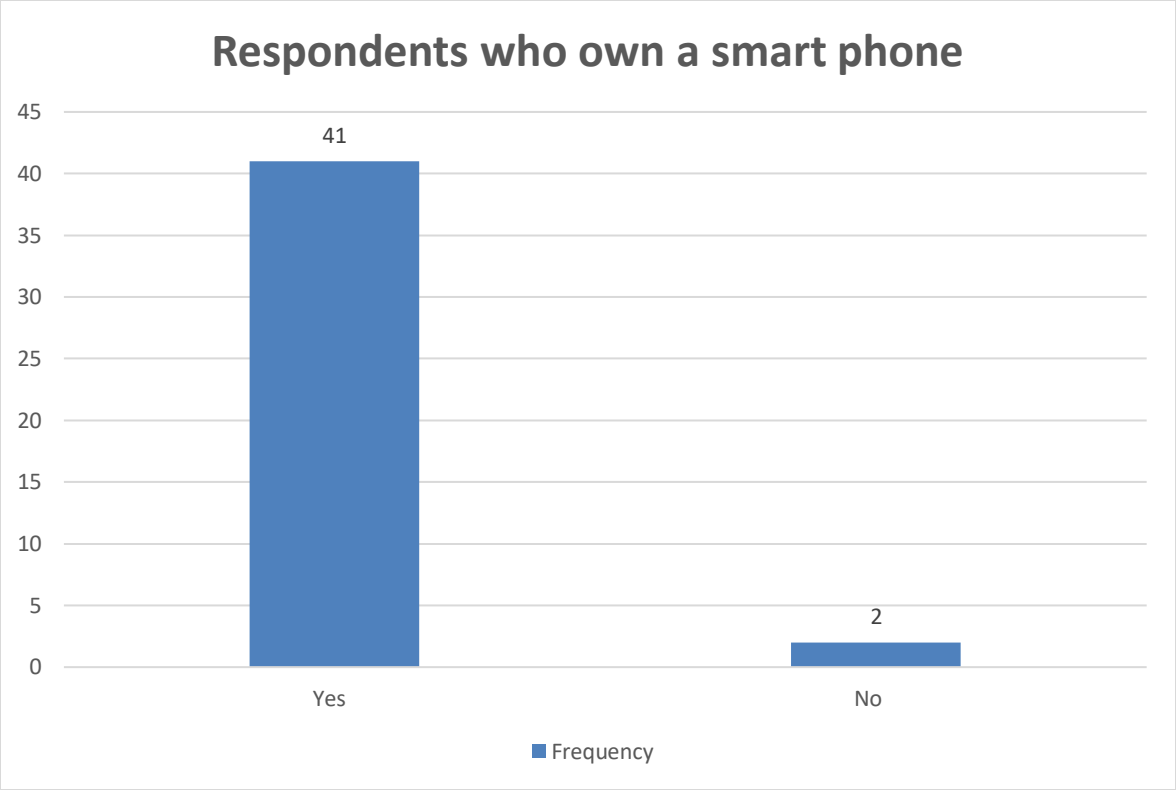
4.10. Respondents who own a smart phone

Strickland (1990) suggests that smartphones at a very fast pace are becoming the primary device for access of internet and accessing information in addition to performing basic functions. Mobile phones are one of the technologies that has made its mark and it's been used for higher education.

	Frequency
Yes	41
No	2
Total	**43**

Table 8: Respondents who own a smart phone

(Elammari & Cavus, 2019) observed that students prefer a mobile smart phone to engage in the eLearning process. This is because of portability and availability of the smart phone options. There has been an increase in the dynamics of a mobile phone. Less distractions and more collaborations put the mobile phone at an edge over other devices.



4.11. Distribution of respondents by social media accounts

According to Valtakoski (2020) students can utilize social media accounts with their portfolios to grow their academic and professional profiles. At other times, assignments can be done at their social media links and distributed by the participants. Valtakoski (2020) goes on to note that employers can also trace potential employees through the social media profiles.

Category	**Frequency**
Yes	43
No	0
Total	**43**

Table 9: Distribution of respondents by social media accounts

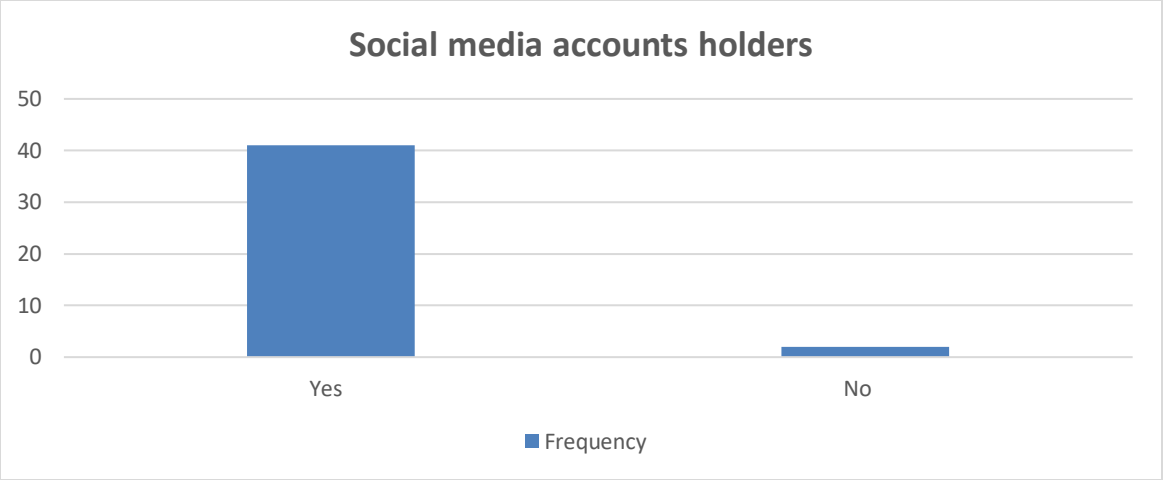


Figure 7: Distribution of respondents by social media accounts

4.12. Distribution of respondents by IT knowledge

According to Valtakoski (2020) technology plays a crucial role in providing a simulated real-world studying experience. Platforms on IT knowledge and the source of study materials can be very vital for a student.

Category	**Frequency**
Excellent	11
Good	14
Fair	15
Poor	2
Very Poor	1
Total	**43**

Table 10: Distribution of respondents by IT knowledge

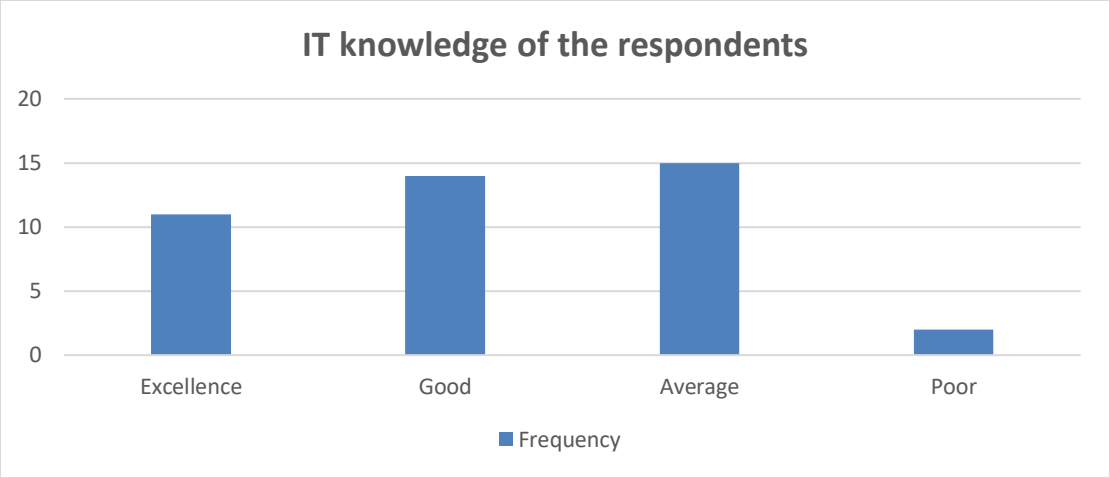


Table 11:Distribution of respondents by IT knowledge

4.13. How frequently do you attend online classes?

Ordinarily, if students are able to use technology in class and school setup, then by extension they will be competent to use the technology in class.

Category	**Frequency**
Always	11
Often	14
Sometimes	15
Rarely	2
Never	1
Total	**43**

Table 12: online classes attendance

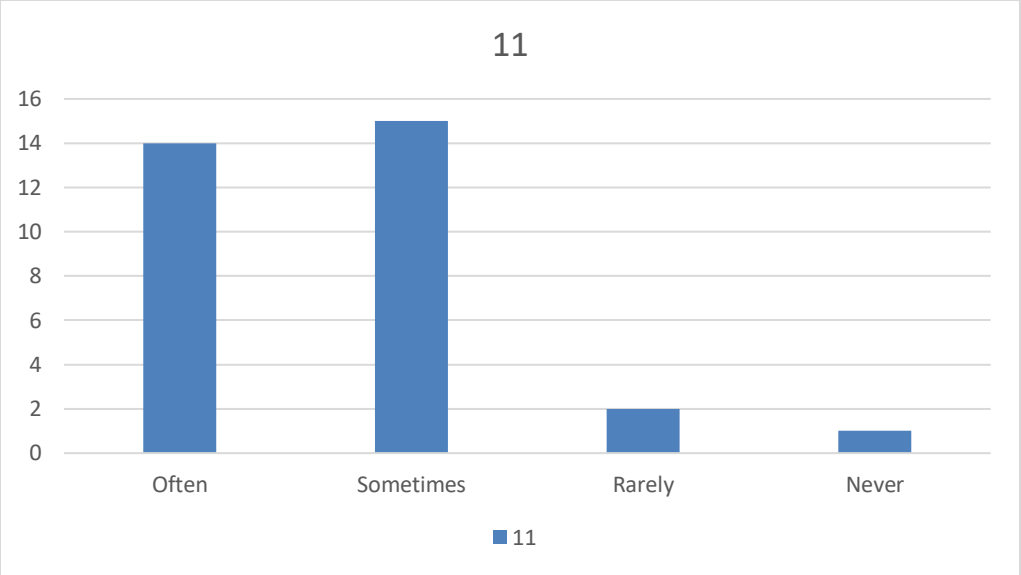


Figure 8: online classes attendance

4.14. How satisfied are you with the university's embrace of technology?

Category	Frequency
Very satisfied	11
Somewhat satisfied	14
Neither satisfied nor dissatisfied	15
Somewhat dissatisfied	2
Very dissatisfied	1
Total	**43**

Table 13: university's embrace of technology satisfaction

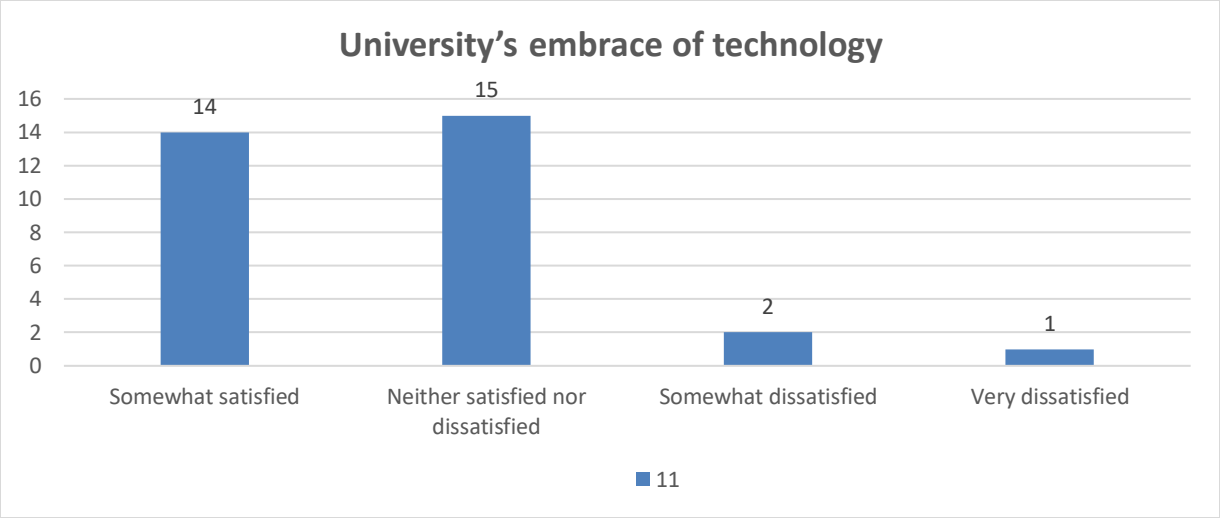


Figure 9: university's embrace of technology satisfaction

4.15. How helpful has technology been to your studies

Valtakoski (2020) observes that education is easy and so is learning when technology is as a facilitating tool. Other ways technology can be used to utilize and supplement the provision of instructional materials and varying the study process by providing a support research system and simulating a sense of interest from the participants.

Technology is being regarded as the driving force in the education industry.

Category	**Frequency**
Extremely helpful	35
Very helpful	5
Somewhat helpful	2
Not so helpful	1
Not at all helpful	0
Total	**43**

Table 14: technology assistance

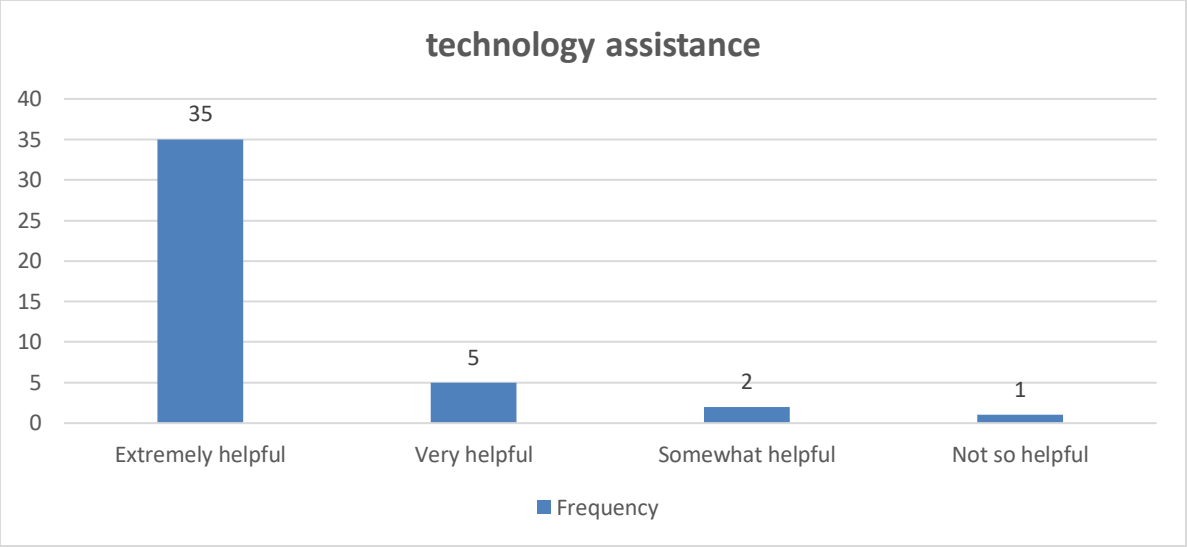


Figure 10: technology assistance

5. CHAPTER FIVE

5.1. CHAPTER SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.2. INTRODUCTION

Education is a necessity to each and every individual. Governments and organizations acknowledge this fact, and therefore have taken time to entrench in their constitution and operational policies, as a prerequisite human need that has to be met. The Millennium Development Goals (MDGs) has the second goal admit the fact that universal access to education should be achieved.

5.3. Challenges to education

1. For centuries, education has faced a myriad of challenges. Africa in particular, many hurdles have stood in the way to successful transfer of knowledge. It has been considered, that culturally, men have the priority to education than women. This has been a setback to societal development, since girls are not given equal chances comparatively.
2. The fact that several governments have realized the essence of an educated society, they now have allocated resources towards the development of the same, albeit in small portions. A successful education system needs a lot of effort and allocation of finance from institutions. Managing a successful education is quite expensive. And with the advent of technology and the subsequent use of the same, it is making it more expensive than it initially was.
3. Computer systems which include software, hardware, the internet is quite expensive in investments. The infrastructural implications may last quite some time, but the initial investment may take a toll even to the richest of institutions.
4. Training of stakeholders is a concern that has been raised over time. The knowledge of technology is generally low in some instances and regions. This requires that there be a training of trainers even before the teachers come to class.

5.4. Technology

McLeod (2019) alludes that considering the world is driven by technology in every sphere, technology is a teaching tool, and, education based on needs with an integration with technology leads to a positive effect from the teachers all the way to the students. A few years ago, stakeholders in the education industry especially teachers and students had to be present physically in a class. But times have changed and it is no longer a necessity; the advent of technology has provided a paradigm shift and the limits from distances have been cut off. With a click of a button, communication across boundaries have been made possible.

5.5. Technology has made student life easy

The education has had a direct impact to technology. The demand by the stakeholders has made technological to be creative and innovative in provision of services and platforms for facilitation for the transfer of knowledge and for learning purposes.

The innovation and creativity in the IT industry have made the schools to adapt to technology and its advantages, therefore making the teacher-learner interaction easy. In this instance, both the teachers and students are able to reap the full benefits of internet enabled learning environment.

5.6. Easy to store information and Information is easily accessible

With technology, it is possible to access information anywhere and have access to information at fingertips 24 hours a day. Students are able to access any material, from research to educational based apps and the interactive platforms such as edutainment and those resources that are open from big prestigious institutions as universities around the world. The students can participate in forums for navigations videos, browsing, research and discussions (McLeod, 2019).

5.7. Technology has removed space and time limitations

The availability of massive volumes of information across the internet are available at a click, at a fingertip through an internet connection. Such information come at different formats for both formal and informal learning. Such formats include books, text, audio, video, and images are accessible worldwide.

The other aspect incorporates the collaboration and communication that has been necessitated by technology. Traditionally, classrooms had an element of isolation where, the physical limitations were present. Unprecedented times have made it possible for the removal of time and space limitations.

5.8. Recommendations

For centuries now, education has been put as a priority in every community. The society has put a huge emphasis on the need to have the populace as educated as possible with the theme of knowledge is power in play. For the past half a century or so, the education system has improved steadily, by the various components of education system being improved. Policies, rules and regulations have been modified over the ages to ensure the increase in pupils and students going to school. The physical structures have also improved over time, the structural buildings have been built to ensure that students have a very humble, safe and conducive environment to have a successful learning experience (Raja et al 2018).

The researcher observed and reached a conclusion that there is still much to as it comes to technological implementation in aiding the transfer of knowledge in institutions.

1. Blended learning is an educational approach in which students learn online as well as through traditional face-to-face teaching. At different times blended learning can also be referred to as the hybrid format which is the combination of traditional and online format with multimedia components, such as interactive discussions and polls, embedded videos and live chats (Balka, 2011).
2. Institutions need to invest in systems that offer support to the use of technology. Over the course of the research, it was discovered that most institutions are still lagging behind in terms of technological hardware systems that assist the learners in and out of class. In this regard therefore, the researcher recommends that schools both of ordinary and advanced levels as well as institutions of higher to should invest in hardware, software and physical structures to enable students to take a fully aided technological learning environment.
3. Institutions should develop an interactive sessions and segments on eLearning platforms to ensure that students with challenges and any arising complications are dealt with immediately. This ensures that it brings flare and convenience to the students, teachers and lecturers alike.

This is because learners are able to relate and provide a step-by-step procedure to follow, they are able to prompt students and teachers of any developments.

4. Institutions have a responsibility of making sure that there is a community around the learning environment. The researcher proposes that communication is key to successful to online learning. In this case, channels ought to be utilized such as social media, emails, chat rooms and online collaboration tools. This assists the learners to join and participate in discussion forums and raise their issues and doubts in an interactive setup which in turn raises a competitive and motivated spirit and to perform better in their studies.

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7. APPENDIX II: QUESTIONNAIRE

7.1. RE: REQUEST TO COLLECT DATA

I am currently a student at MUA (The Management University of Africa) currently pursuing a diploma course in management and leadership. I am required to carry out a research on The Impact of Technology on Academic Performance of University Students: Case Study of The Management University of Africa

The purpose of this letter is to ask for your permission to carry out a research by collecting data in your organization. The data collected is intended for academic purposes only and shall be treated with utmost confidence.

Please respond to the following questions giving your opinion and selecting optional answers you agree with.

SECTION A: BACKGROUND INFORMATION

1. Indicate your Name

   _____

2. What is your age

   A. 0-20 [ ]
   B. 22-32 [ ]
   C. 33-42 [ ]
   D. 43-53 [ ]
   E. 53+ [ ]

3. What gender do you identify as?

   Male [ ] Female [ ] Prefer not to answer [ ]

4. What is your current employment status?"

   A. Employed Full-Time [ ]

B. Employed Part-Time [ ]

C. Seeking opportunities [ ]

D. Retired [ ]

E. Prefer not to say [ ]

5. What is the highest degree or level of education you have completed?"

A. Primary school [ ]

B. High School [ ]

C. Bachelor's Degree [ ]

D. Master's Degree [ ]

E. Ph.D. or higher [ ]

F. Trade School [ ]

G. Prefer not to say [ ]

6. What is your current year of study?

A. 1st year [ ]

B. 2nd year [ ]

C. 3rd year [ ]

D. 4th year [ ]

7. Do you have any previous experience with online learning?

Yes [ ] No [ ]

8. What are your thoughts about online learning?

1_____

2_____

3_____

9. Do you own an internet-enabled smartphone?

Yes [ ] No [ ]

10. Do you own a smartphone?

Yes [ ] No [ ]

11. On a scale of 1–5, how would you rate the school's preparedness for online learning?

A. Very satisfied [ ]

B. Somewhat satisfied [ ]

C. Neutral [ ]

D. Somewhat dissatisfied [ ]

E. Very dissatisfied [ ]

12. Outline 3 things you like about online learning.

1_____

2_____

3_____

13. What three things do you dislike about online learning?

1_____

2_____

3_____

14. How comfortable are you with sourcing relevant information on the internet?

A. Excellent [ ]

B. Good [ ]

C. Fair [ ]

D. Poor [ ]

E. Very Poor [ ]

15. Would you need any help with adapting to online learning?

Yes [ ] No [ ]

16. How can we make your online learning experience better?

_____

_____

_____

17. How often do you use a computer away from school?

A. Always [ ]
B. Very Frequently [ ]
C. Occasionally [ ]
D. Rarely [ ]
E. Very Rarely [ ]
F. Never [ ]

18. Have you ever used the internet to complete a school task?

Yes [ ] No [ ]

19. The school provides adequate access to technological tools for learning.

A. Strongly agree [ ]
B. Agree [ ]
C. Neutral [ ]
D. Disagree [ ]
E. Strongly disagree [ ]