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**DEPARTMENT OF NURSING**

**DIPLOMA PROGRAMMES**



**TOPIC: HOW THE ADOPTION OF E-LEARNING CAN HELP IMPROVE THE  
ACADEMIC PERFORMANCE OF STUDENTS OF HOLY FAMILY NURSING AND  
MIDWIFERY TRAINING COLLEGE, BEREKUM**

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**BEREKUM**



**TITLE OF PROJECT: HOW THE ADOPTION OF E-LEARNING CAN HELP  
IMPROVE THE ACADEMIC PERFORMANCE OF STUDENTS OF HOLY FAMILY  
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## DECLARATION

We hereby declare that this submission is our own work towards the Diploma in General Nursing/Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

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## **ABSTRACT**

The adoption of e-learning in various institutions is now the trend to the future of education especially in the higher education. The main aim of this study is to find out how the adoption of e-learning can help improve the academic performance of students of Holy Family Nursing and Midwifery Training College, Berekum. The study has four set objectives; to find out the general knowledge on e-learning from students of Holy Family Nursing and Midwifery Training College, Berekum, to examine the advantages of e-learning to students of HFNMTC, Berekum, to examine the disadvantages of e-learning to students of HFNMTC, Berekum and to recommend critical issues to be considered for the effective implementation of HFNMTC, Berekum e-learning system. Twenty-five (25) students were selected from each year group (4 year groups) resulting in a sample population of 100 respondents for the study. Primary data was gathered from the field of study (HFNMTC, Berekum) through a set of questionnaires. Data was obtained manually from the answered questionnaires with the help of Microsoft excel. The findings revealed that, students have enough knowledge on the e-learning system. The study recommends that, learners and lecturer should have some basic Information and Communication Technology skills for an effective implementation of the e-learning system. The study also recommends that, there should be effective internet connectivity in the e-learning environment. Also, the development of well secured e-learning portal or systems to prevent external manipulation was recommended.

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## **ABBRAVIATION**

1. HFNMTC - Holy Family Nursing and Midwifery Training College
2. E-Leaning - Electronic Learning
3. VLE - Virtual Learning Environment
4. RGN - Registered General Nursing
5. RM - Registered Midwifery
6. NAP/NAC - Nurse Assistant Preventive and Nurse Assistant Clinical
7. % - Percent

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background of the study**

The Internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information. In institutions of higher education, the issue of utilizing modern information and communication technologies for teaching and learning is very important. Due to the rapid growth of technology in the world of health and availability of useful materials on the internet, many health institutions and other higher educational institutions has assumed a new trend. The trend involved a significant reliance of online materials in the learning experience of the 21st century students of higher learning. (Ahiaklo-Kuz, Essel, & Nunu, 2018)

The online learning materials have become one of the major key resources for students undertaking higher education studies due to both its availability and its current nature. Previously, the only sources of educational learning materials available to students were hard copies of books and course materials which many other researchers thought could limit the students' successes. However, the educational conditions nowadays have changed dramatically with the advent of internet (Essel, Tachie-Menson, & Owusu, 2018).

The electronic learning is defined as the provision of educational content (electronic) through the media based on the computer and its networks to the recipient in such a way that allows the possibility easy accessibility of learning materials and the possibility of managing and completing the study or course in the expected time, convenient place and speed that suits conditions and abilities. (Khrulyova & Sakhieva, 2017).

The most attractive feature of the e-learning system is that; it is student-centred. It accommodates individual preference and needs. At the same time, it empowers students of various backgrounds to have equal access to the best resources and referral materials as mention previously. Most professionals interested in the use of technology in education understand the importance of e-learning. Today, e-learning companies offer a variety of e-learning service and content management in various institutions. (Mason, 2012).

There is now more open access to information and online materials being accessed outside those hard copies learning materials that were being provided by lecturers. There is even clear indication that the situation in the coming years is likely to accelerate and change the way students are learning. In order to remain relevant and flow with the constant changes in the content of educational teaching and learning materials, most higher educational institutions including health colleges are in one way or the other taken some online teaching and learning initiatives in their own capacity. (Mason, 2012)

E-learning approach has become an increasingly popular approach in higher educational institutions due to vast growth of internet technology. Nowadays, e-learning has a competitive advantage and many tertiary institutions have implemented it and this has impacts on student's academic performance.

However, still there are other tertiary institutions which have not yet adopted the use of e-learning systems which put some students at disadvantage in terms of academics. Today, e-learning is a tool used to remove geographical barriers and facilitates everybody to learn anytime and anywhere without the presence of the lecturer. The main purpose of e-learning is to increase accessibility of education and reducing cost and time as well as improving student's academic performances. This approach of learning facilitates different students with different learning abilities to learn in their own suitable time frame.

It has been found that students in tertiary institutions who engage mostly in e-learning tend to perform better than those who engage only in face-to-face interactions. (Holley, 2017)

Some of the initiatives of the online environment adopted by the universities included virtual learning environment (VLE) and portals where teaching and learning materials are shared with students. It is a well-known fact that, the use of online materials will help in easy assessing and retrieving of data and easy assessing of students. Instructional methods via tools such as virtual learning environment, audio visuals, video-based self-directed learning like the Khan Academy, and Massive Open Online Courses (MOOCs) (Essel, et al., 2016)). The introduction and the use of online materials in the educational institutions worldwide has been able to assist in student's apprehension in learning, (Essel, et al., 2018). This study tapped into the learning environment of the students in order to find out the short-comings associated with the traditional teaching and learning and how well the involvement of technology can help improve teaching and learning.

### **1.1 Problem Statement**

Students of today are more exposed to multiple sources of learning materials than ever (Essel, Nunu, & Ahiaklo-Kuz, 2018). With the level of technological tools currently at their disposal, one is not far from right to state that online learning materials remain the major source of learning materials for the current generation of students. To support this claim, existing research on the use of online learning resources according to Jones, et al., (2011) indicate that it improves students' success in higher education.

According to Moore, et al., (2011), it transforms the traditional function of the course instructors from merely providing information to that of a facilitator. This new role requires the students to be facilitated by the tutor to learn at their own pace and conveniences and to make the assess of information quicker.

This will allow the students to enjoy a greater level of independence of learning. It is a major goal of every educational institution to provide her students with the best quality of education at all cost to enable them excel, (Ismail, A., Mahmood, K, & Abdelmaboud, 2018). This could best be achieved if students' opinions and attitudes are gathered and analysed. Ideally, stakeholders must not be left out during the implementation stages of new technology base learning policy. They should be consulted and made to accept and appreciate it or have positive feelings about it (Austin, 2017). It is therefore appropriate to involve students at the early stages of the implementation processes of policy formulation to ensure that learners are factored into the learning processes (East European 2016).

The provision of lectures note online for students to access is the norm of day in many institutions. It gives quicker access to the materials needed within the possible short of time. Provision of hand-outs and textbooks is still considered relevant but usage of online learning materials or books in their softcopy is easy and flexible. Students do not need to carry books around instead can access whatever they need using their smartphones or computers.

There is no doubt about the fact that, students of Holy Family Nursing and Midwifery Training college, Berekum have access to modern and well finished library on campus with great and current books. Also the fact that, these students do not have access to the library all the time cannot be denied. Mostly, students who prefer to learn late in the night have to get their own source of learning materials since the library closes at 10:00pm which is a disadvantage to them. The library does not also open during weekends which is problem for students to access these learning materials during the weekends.

Therefore, creation of e-learning platforms such as the Moodle Application and encouraging lecturers to upload their notes and other needed learning materials will help eradicate the barriers of accessing learning materials all the time.

It will even help students to get access to these materials even during vacations. These e-learning platforms can also be used to conduct examinations and other academic exercise which will even result in early and quicker assessing of students and avoid the delaying of semester results. Therefore, there is the need for this study to be conducted to assess how possible we can use e-learning to improve the academic performance of students of Holy Family Nursing and Midwifery Training College, Berekum.

## **1.2 General Objectives**

### **Main Objective**

To find out how the adoption of e-learning can help improve the academic performance of students of Holy Family Nursing and Midwifery Training College, Berekum.

### **1.3 Specific Objective**

1. To find out the general knowledge on E-learning from students of Holy Family Nursing and midwifery Training College, Berekum.
2. To examine the advantages of e-learning to the students of Holy Family Nursing and Midwifery Training College, Berekum.
3. To examine the disadvantages of e-learning to the students of Holy Family Nursing and Midwifery Training College, Berekum.
4. To recommend critical issues to be considered for the effective implementation of the HFNMTC, Berekum e-learning system.

## **1.4 Operational Definition**

In order to enhance and improve on understanding of this study, the researcher decided to explain in details the conceptual meaning of certain key terms that have been used in this study. For example, the terms online learning materials, the 21st century learner and higher education were needed to be properly defined in order to give real meaning to the study.

### **21<sup>st</sup> Century learner.**

The 21st century learner as used in this contest refers to the generation of students from the year 2000 upwards. It talks about how modern students make use of technology nowadays. The current explosion of scientific discoveries leading to a surge in the level of technological advancement globally has opened doors for more opportunities for all. Time and place are no longer barriers any more. People are now easily connected or linked up to share information without limits.

### **Higher Education**

Higher Education in this context includes all tertiary institutions in the country. This include institutions such as polytechnics, universities and training colleges which award diploma, degree and post degree certificates after a successful completion of a stated academic program or course.

### **Online learning materials**

Online learning materials talks about the various resources available on the internet in an online educational environment. It includes documents such as course or chapter objectives, lecture notes, assignment. It also includes audio or video materials too.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviews relevant literature related to students' experiences of online learning materials to support success in higher academic education. The objectives of this research work is not to rundown or disapprove of the brick and mortar face to face class room lesson delivery approach which still remains the common approach among all. However, the technology breakthrough of the 21<sup>st</sup> century leaves learners with multiple sources of information that contribute to their academic success at all levels of their educational career.

According Hassana and Woodcock, (Woodcock, 2017)it is necessary to discover the most effective ways by which learners could be motivated to develop love for online learning materials which in his view makes learners independent in their learning. With the introduction of e-learning, many institutions are changing particularly with respect to how teaching and learning activities are carried out. Today, a wide variety of electronic devices and technologies have been incorporated into the traditional educational system, giving rise to the so called hybrid or blended mode of learning: where e-learning is employed in the traditional on-campus/classroom setting (Purcell, et al., 2013).

Presently, e-learning is an issue of concern in higher education in Ghana. The nation has it at heart to widen access to education and promote independent and lifelong learning through the use of e-learning (Addah, et al., 2017). A web based report indicates that the Kwame Nkrumah University of Science and Technology in Ghana is currently employing e-learning on distance learning mode; where students rarely or never meet face-to-face, nor access on-campus educational facilities (Asiamah, et al., 2018).

Moreover, it has been reported by prior studies that, KNUST has installed electronic devices and technologies to allow e-learning within the university. This indicate the need and importance in the adaptation of e-learning in our higher educations.

## **2.1 Knowledge on E-learning**

A learning system based on formalised teaching but the help of electronic resources is known as E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge and the delivery of education can be made to a large number of recipients as the same time in different place.

Earlier, it was not accepted wholeheartedly as it was assumed that this system lacked the human element required in learning. However, with rapid progress in technology and advancement in learning systems, it is now embraced by the masses. The introduction of computers was the basis of the revolution and with passage of time, as we get hooked to smartphones, tablets, etc. and these devices now have an important place in the role of e-learning. Books are gradually getting replaced by electronic educational materials like optical discs or pen drive. Knowledge can also be shared via the internet, which is accessible 24/7, anywhere, anytime.

E-learning has proven to be the best means in the educational sector, especially when training individuals to become professionals across the globe. The schools which uses e-learning technologies are a step ahead of those which still use only the traditional approach towards teaching and learning.

### **Types of Online Learning Materials**

Classifying online learning materials is not that easy especially when the list is an endless. Every blessed day comes with its own sets of E-learning materials due to the technological surge in recent times.

## **Live videos**

There are many institutions that provide live online classes for their students. These are equally suitable for students who do not have easy access to coaching centres as well as the ones who prefer one-to-one learning. Example is the use of zoom conference application.

## **Application Software:**

Mobile apps are another example of digital learning material. Nowadays, almost all the students have smartphones with an internet connection.

These students download apps to learn new things. Not just simple apps, there are mobile apps for specific exams such as Moodle Application for smart phones, (Ahiaklo-Kuz, Essel, & Nunu, 2018).

## **Podcasts**

These are recorded audio clips; which students can download and listen to whenever they want. There are so many teachers who upload their recorded lectures for the students who want to study by listening to the study material, (Ahiaklo-Kuz, Essel, & Nunu, 2018).

## **Info-graphic**

This is a combination of text and graphics to explain a concept which in the view of the writer could not be done with only one format. In order to solve this deficiency, there is the need for the use of multimedia information that blends text and pictures to enhance easy understanding of concepts to learners. These are just some of the examples of digital learning materials. The online world is full of a number of other choices that students can explore by utilizing their time wisely. Courses and programs are planned systematically and as a result they have course materials for the students to learn. This also includes lecturer's notes for students.

The notes and online course text materials usually come in the form of PDF, Word Document or PowerPoint Presentation. Depending on the nature of the online material; an appropriate format is usually chosen for it.

### **Online Learning Materials and Students' Educational Success**

Internet is a broad spectrum that opens wider doors for accessing endless information. Its usage is so broad. It supports all kinds of profession especially education. It has brought great relief to students. The period of none availability of certain hard copies of book became over since internet access became accessible by greater percentage of the global population. Students and teachers no longer have to rely on textbooks and other hardware materials. All that is required is for one to get connected and click on a button to get the information he or she requires.

### **2.2 Advantages of Online Learning**

Technology breakthrough of the century has brought some relief to students of the twenty first century. It has indeed transformed or modernized the students' learning approach to include other aspects such as online learning experience (Wang, et al., 2003) Students now have at their disposal, variety of learning materials to choose from.

It is an obvious fact that the benefits of eLearning in higher education are so enormous that we cannot simply quantify it. In view of this online learning is said to be one of the best methods of learning preferred by many across the globe. Many authors including (Klein & Ware, 2003) and (Hameed, et al., 2008). (Nichols, 2013) have spoken extensively on the advantages of online learning to students. Drawing inferences from the various relevant literature reviewed so far concerning this topic, we are left with no doubt that the following itemized points very well represents some advantages or benefits that learners derived from adopting online learning in higher education;

**Flexibility** – with regards to time and place it offers the most flexible learning opportunity with less stress. It affords students the opportunity to individually determine when, where and how to conduct their personal studies. In the view of Algahtani (A.F., 2011), the advent or introduction of eLearning to schools has brought about relief to the school system especially the students due to the fact that the students now have the flexibility to study on their own at their preferred pace.

**Relationship Development** - It is able to provide opportunities for individuals with common interest to create a relationship that enhances their learning capabilities especially in the area of discussion forums. (Wagner, et al., 2012) is of the view that online learning actually increases interaction among lecturers and students and thereby making learning interesting to students.

**Individual Difference** –This system of study to a large extent makes room for individual learners' differences. Some learners, for instance prefer to concentrate on certain key aspects of their courses, while others are prepared to review their entire aspects of their entire courses. Students are also allowing to use other online learning materials such as recorded videos about the course to help comprehend complicated topics.

**Independent Learning Pace** – Online learning allows for self-pace learning which the asynchronous approach to learning sought to explain. Beside its ability to reduce or eliminate stress and make students happy to learn, it also affords them the opportunity to learn at their paces individually.

**E-learning saves time-** With online learning, learners can access content anywhere and anytime. They do not need to take much time out from their various places to attend classes. Students can be in the house even during vacations and still have lessons with tutors and also have access to the learning materials.

**E-learning save money-** It is also cost effective, many students save a substantial amount on the travel and accommodation costs as well as the learning materials since no printing of learning materials are need. The use of e-learning systems helps save all these monies and help relief students and guardians on the burden of such costs.

**E-learning leads to better retention-** Modern learners prefer bite-sized, interactive content. They would rather watch a video or listen to a podcast for quicker understanding than read through pages of a manual. E-learning tools enable learning designers to make content interactive and simple for understanding. The more engaging the content is, the better the learners remember and understand what have been taught. If they enjoy learning, they can able to recall and apply the concepts at work.

**E-learning is scalable-** Online learning is scalable. Students have the advantage of measuring their performances and ability quicker, easily and sometimes instantly after taking examination. The various educational institutions that deals with e-learning systems are able to constantly keep an eye on the increase or decrease in performance and the possible cause and effect it has on the students and the whole institution as a whole.

**E-learning offers personalization-** Each learner has unique preferences and learning goals. E-learning makes it possible to cater to individual needs. It allows learners to choose their learning path and navigate at their own pace. They decide on when to learn depending on the time frame given.

### **2.3 Disadvantages of Online Learning**

In the previous topics of this chapter, there had been detailed discussion on the brighter side of internet technology and how students' online experiences impact on their educational achievements at the higher levels. Despite all the good things said about online educational materials, there is however, a shadow side that should not be overlooked.

Among the barriers to internet access is the issue of the problem of the e-learning world. The assess rate of internet in Africa specifically in Ghana is a great problem which hinders the success of e-learning some locations of the country.

Another major barrier has to do with skills to operate or manipulate computer or sit behind a Personal Computer.

To browse, many still lack the skills to operate even mobile phones especially in Africa where somebody is yet to see a mobile phone for the first time in his or her life. The internet gate way is till slow in most African countries and this is a disincentive to its usage (Orlikowski & J, 2016).

Despite the fact that we all yearn for Technology, there is still the need to ensure that we properly inculcate it into our educational system in order to curb abuse. Learners should be properly educated and concertized on the dangers of internet before been allowed to access it (Hague & Williamson, 2014)He also touched on the need to continue upgrading their already acquired computer skills in other not to become obsolete as a result of software and equipment's constant update.

#### **2.4 Factors to consider for the effective implementation e-learning system.**

We have discovered from previous sections of this study that one major advantage of the online learning is that it offers learners the opportunity to conduct studies on their own and it also give them control of their learning. It however shows that whiles some students will give thumbs up to online learning other students have issues with it (Barnes, et al., 2004)

In view of the disagreement concerning which method is effective, it is often advisable to first assess student's learning style in order to know which learning style is ideal for each student and make that available. Series of online learning material are available and choosing the right one at the right time for the right student and the right course is of great importance.

To understand why e-learning is the tool of choice for the corporate training, it is important to understand the target audience. Today learners want personalised content at their point need. Since they are mostly on the move, they prefer being able to access content anytime and from anywhere. Most students depend on their smartphones and other electronic devices to browse the internet for answers and clarification they seek.

## **CHAPTER THREE**

### **MATERIALS AND METHODS**

#### **3.0 Introduction**

This chapter presents a detailed discussion on the various research methods and techniques deployed for accessing data from the respondents. It also shows case the method used to analyse data and present results. It also discusses data validity and reliability test approach adopted for this study. The profile of the study area is also discussed in this chapter. Ethical consideration issue was discussed as well. Finally, the summary of the chapter was used to close discussions on this chapter.

#### **3.1 Study area**

The research was conducted in the Holy Family Nursing and Midwifery Training College, Berekum in the Bono Region. The Nursing and Midwifery Training College, Berekum is located at New Biadan. The school shares boundary with the Holy Family Hospital, Berekum and Freeman Methodist School. The school was established in the year 1957. The major inhabitants of the college campus are nursing trainees and midwifery trainees. The total population of the school is six hundred and eighty two (682) including students, teaching and non-teaching staffs with different ethnic backgrounds. The teaching staffs include the principal of the college, administrator, academic coordinators and tutors. The non-teaching staffs includes, drivers, security men, cooks and cleaners. According to the dean of students, the settlement of the college has a student population of Six Hundred and Eighty Two (682). The settlement type of the schools' building is a nucleated one with building mainly built with blocks and roofed with aluminium sheets.

The school has an administration block, a class room block made up of nine (9) lecture halls, tutor offices, a conference hall, an auditorium, a supermarket, a hairdressing salon, a dining hall and a kitchen. There is a well-furnished computer laboratory, two skills laboratories for nursing and midwifery students as well as a well-furnished library in the school. The school has four hostels; one for the female nursing students, one for the Post NAP/NAC students, one for the male nursing students and the other one for the midwifery students as well as four bungalows for tutors. The school has a bus which helps them to carry students to any event or occasions. It also has a school field which serves as a playing field and two summer huts. There are two security post, car park and a fore court.

### **3.2 The study population**

In the view of Eheduru (Eheduru, 2016), He defines population as the “totality of all cases which possesses a set of well-defined characteristics or conform to a particular design.” it is the entire group of items which the researcher wishes to study and plan to generalize on. The population of the research comprises all students of Holy Family Nursing and Midwifery Training College, Berekum. The school has a population of 682 students.

The target population can be defined as "the whole accumulation of respondents that meet the assigned arrangement of criteria" (Grove & Burns, 2016)). It is the group of individuals or objects to which researchers are interested in generalizing the conclusions. The target population usually has varying characteristics and it is referred to as the theoretical population. The target population could be seen in Table 3.2.1. Thus, the target population comprises of 682 students.

Accessible population is the population that forms a subset of the target population. (Catillo, 2017) It is from this population that researcher forms the sample from which primary data is gathered for the study.

In respect to this research and nature of it, 100 students were randomly selected for the research by selecting 25 students from each year group. Therefore, the accessible population was 100.

**Table 1: Population of the Study**

<b>Year Group</b>	<b>Number of students</b>
RGN 22/ RM 17	183
RGN 23/ RM 18	190
RGN 24/RM19	233
NAP/NAC 4&5	76
<b>Total Population</b>	<b>682</b>

### **3.3 Study design**

A quantitative approach was employed so as to help determine the relationship between factors, and provide an in-depth understanding of the established relationships. A cross-sectional study was conducted which led to the generation of both descriptive and analytic data. The social and demographic variables of the respondents were clearly defined.

### **3.4 Sampling technique and size**

The sampling technique used was stratified technique sampling. The sample size used for the study was 100 students. The whole student's body consisting of 712 students were group into 4 strata. Each stratum representing each year group. 25 students were randomly selected from

each stratum making 100 participants in general. The inclusion criteria consisted of 100 students (25 from each year group) who agreed to willingly participate in the study.

This technique was used because students were selected from each year group making the study unbiased. This study also leads to large improvement in terms of representative since the right proportions of different groups in the population are represented.

### **3.5 Data collection methods and instruments**

The major data collection instrument adopted for this research work was a set of questionnaires for the sampled respondents. It was well structured purposely to obtain relevant information for this research work only. Respondents were given the option to tick in order to make a choice out of the multiple options given in areas wherever applicable. The questions also had both close and open ended questions and answers.

The questions were group into sections. Section 'A' deals with bio graphical data of the respondent which include sex, age and marital status. Section B focusses on the general knowledge on e-learning, section C focusses on advantages and disadvantages and section D also focusses on how to consider and recommend critical issues for effective implementation of Holy Family Nursing and Midwifery Training College, Berekum e-learning system.

### **3.6 Data analysis techniques**

The data was analysed and presented in tables, graphs and charts with concise explanatory notes to add meaning to the results. Results were obtained manually from the answered questionnaires with the help of Microsoft excel. The data was analysed descriptively and presented through frequency tables, bar charts, pie charts and percentages accompanied by concise explanatory text in simple language to aid in easy understanding of the findings.

### **3.7 Ethical consideration**

Ethically, a research of this nature requires that, the rationale or the motive behind it be made known to the respondents and also give some form of assurance to the respondents that the information sourced from him or her will not be used for any other purpose than the

Institutional ethical clearance was obtained from the Department of General Nursing and the Department of Midwifery before conducting the study as well as the department of Post Basic Midwifery for Nurse Assistant Preventive and Nurse Assistant Clinical (NAP/NAC).

The respondents were well informed about the purpose of the study and that participation was optional and that they could withdraw at any point along the study.

In furtherance to the ethical considerations, the case study bank was written to in order to seek approval before commencement of the actual research work. The researcher also assured respondents that confidentiality and privacy of participant's information was guaranteed. With regards to the mode of questioning, the researcher avoided the use of deceptive statements and questions. During the course of the research and most importantly, the participants were never in anyway coerced to participate. Above all, the researcher also ensured that the activities of the entire project were accident-free.

### **3.8 Limitations of the Study**

Even though the study was generally successful, they were other challenges encountered during the study. The first challenge has to do with the unwillingness of most respondents to respond to the questionnaires either for lack of time due to the tight schedules.

The second challenge borders on financing. The researcher was burdened financially having to foot the cost of typing and printing cost all alone without support.

Also, a good number of the student population was not represented and hence cannot be generalized to the whole population.

Despite the evidence of the few challenges encountered, user or beneficiaries of this research materials are assured that the challenges did not in any way compromised the validity and the reliability of the outcome of this work.

## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

#### 4.0 Introduction

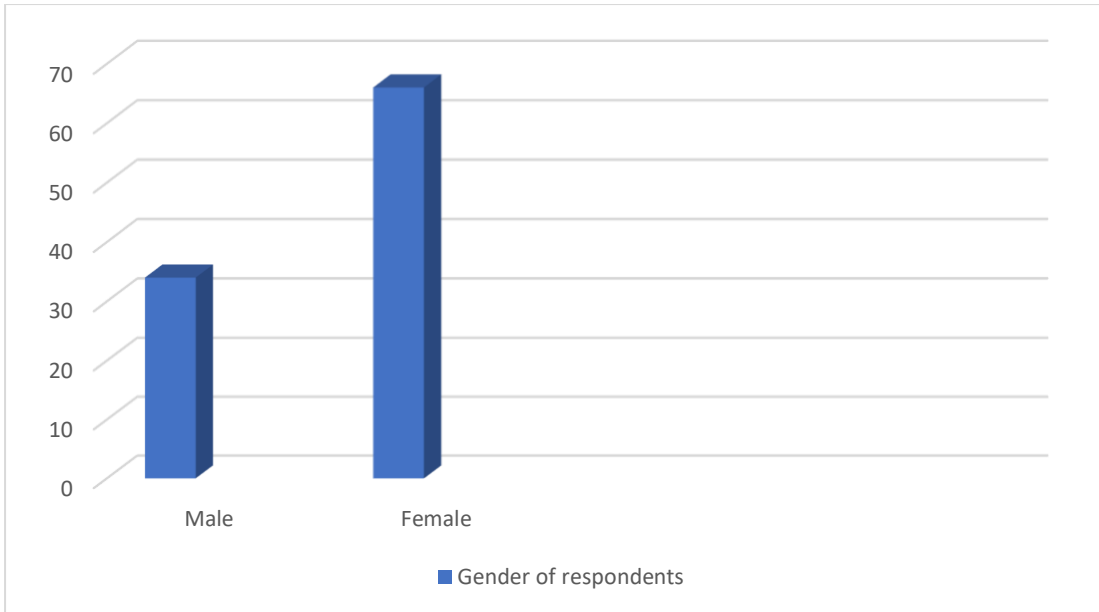
This chapter presents a detail analysis and discussions of the data gathered from the field. The results are presented in tables, graph and charts. The analysis data was done according to the specific objectives of the study. The results are categorized into the demographic characteristics of the respondents, respondents' knowledge on e-learning, the advantages and disadvantages of e-learning and issues to consider before the implementation of such a system.

#### 4.1 Demographic Characteristics of the Respondents

**Table 1: Distribution of Ages of Respondents**

Age (years)	Frequency	Percentage (%)
18-22	11	11
23-27	46	46
28-30	24	24
Above 30	19	19
<b>Total</b>	<b>100</b>	<b>100</b>

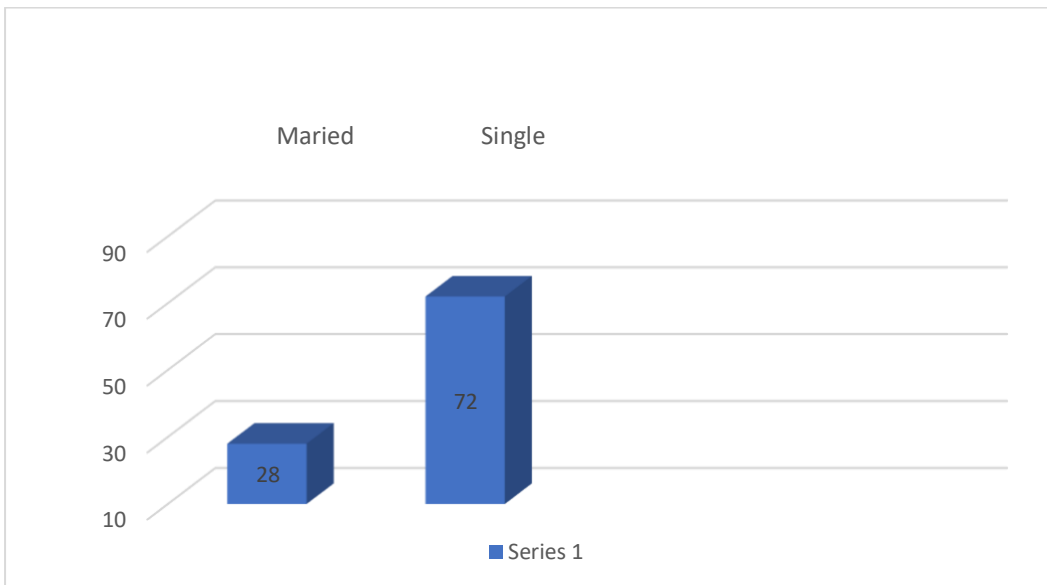
From table 1, majority (46%) of the respondents were within the age range of 23-27. 11% of the respondents were aged 18-22, 24% were within the age range of 28-30 and 19% were above 30 years



**A chart showing the Distribution of Sex of *Respondents***

**Figure 1: Representing Sex of Respondents**

The figure above represents sex of respondents. Majority (66%) of the respondents were females while the remaining 34% were males



**A Chart showing the distribution of respondents marital status**

### Figure 2: Representing marital status of Respondents

Figure 2 above shows the distribution of marital statuses of the respondents of this study. According to the findings, 72% of the respondents stated there they were single and remaining 28% indicated there were married

**Table 2: Distribution of years groups of Respondents**

Year Group	Frequency	Percentage (%)
Diploma 22	25	25
Diploma 23	25	25
Diploma 24	25	25
NAP/NAC 2&3	25	25
Total Population	100	100

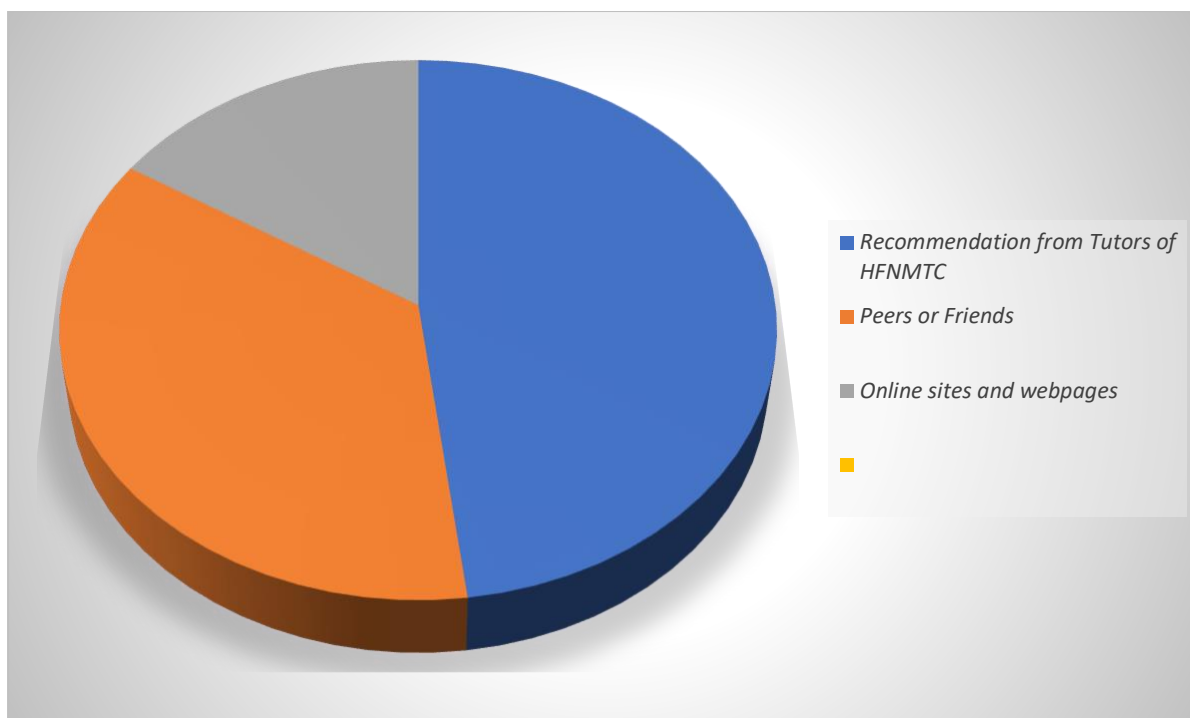
Table 2 illustrate year groups of respondents with each year group representing 25% of the participants.

### 4.2 Knowledge on E-learning

**Table 3: Distribution of Respondents Knowledge on e-learning**

Variable	FREQUENCY	
	YES Number (%)	NO Number (%)
Have you ever heard of e-learning?	100 (100)	0 (0)
Total	100 (100)	0 (0)

All respondents (100%) have heard of e-learning.



**Figure 3: Distribution of Source of Information on e-learning**

Figure 3 above indicates majority (48%) heard it from their tutors followed by 36% who indicated it was heard from peers or friends and 16 indicating online sites and webpages through online adverts.

#### 4.3 Advantages of e-learning

**Table 4: Distribution of advantages of e-learning.**

Opinions of Respondents	Response		
	I agree N (%)	I disagree N (%)	I don't know N (%)
E-learning if very flexible because students can access learning materials in their own convenient place and time outside the class room.	96(96)	1(1)	3(3)
Using e-learning resources saves a great deal of time on finding learning resources	82 (82)	7 (7)	11 (11)
E-learning can encourage learners to take an active part in	74 (74)	6 (6)	20 (20)

learning			
E-learning can provide useful and quicker ways of assessing students feedback	97 (97)	1(1)	2(2)
E-learning can accommodate learners having different learning styles	51 (51)	23(23)	26 (26)
E-learning can enhance independent learning	88 (88)	10 (10)	2(2)
E-learning method provides an opportunity for collaborative learning despite the time and place	90(90)	10 (10)	0

The table above illustrates the advantages of e-learning. Most (96%) of the respondents agreed to the fact that, e-learning is very flexible. Only (1%) of the respondent disagreed to the assertion that e-learning is flexible while 11% were not sure as to whether the e-learning system is flexible or not.

Again, a large number of the respondents (82%) rightly agreed that using e-learning resources saves a great deal of time on finding learning resources, 7% disagreed, while 11% reported no knowledge on that. Also, majority (74%) of the respondents agreed that, e-learning can encourage learners to take an active part in learning, 6% did not agree while 20% did not express any knowledge on that. A vast majority (97%), of the respondents also agreed to the fact that, e-learning can provide useful and quicker ways of assessing students feedback, 1% disagreed with that while 2% of the respondents expressed no knowledge about it. In addition, 51% of the respondents agreed that, e-learning can accommodate learners having different learning styles, 23% of them disagreed while 26% had no knowledge on that. Furthermore, 88% of the respondents were in agreement that, e-learning can enhance independent learning while 10% did not agree with that assertion, 2% did not know whether is true or not. 90% of the respondents believed that, E-learning method provides an opportunity for collaborative learning despite the time and place but few of them 10% did not agree with that assertion.

#### 4.4 Disadvantages of e-learning

**Table 5: Distribution of disadvantages of e-learning.**

Opinions of Respondents	Response		
	I agree N (%)	I disagree N (%)	I don't know N (%)
Unstable internet connectivity is a major problem in the environment of e-learning.	100(100)	0(0)	0(0)
Focus more on theory than practical	92(92)	8(8)	0(0)
Cheating is unavoidable	22(22)	76(76)	2(2)
There is lack of social interactions physically.	100(100)	0(0)	0(0)
Is expensive as compared to the traditional means of teaching and learning	43(43)	54(54)	3(3)

Table 5 above indicates the disadvantages of e-learning system in Holy Family Nursing and Midwifery College, Berekum. All (100%) of the respondents agreed to the fact that, unstable internet connectivity is a major problem in the environment of e-learning.

In addition, 92% of the respondents believed that, e-learning system mostly focus on theory than practical while 8% of them disagreed with the assertion. Also, majority of the respondents (76%) disagreed to the assertion that, cheating is unavoidable with e-learning system while 22% of them agreed to it that, cheating while using e-learning systems in school is unavoidable, 2% did not express any knowledge on that assertion. Furthermore, all (100%) of the respondents agreed to the assertion that, there is lack of social interactions physically. In the view of expenses, majority thus, 54% of them disagreed to the assertion that, e-learning is expensive as compared to the traditional means of teaching and learning,

43% of the respondents disagreed to this assertion while 3% of them did not express any knowledge of it.

#### 4.5 Issues to Consider Before Implementation of E-Learning (Recommendations)

**Table: 6 Distribution of recommendations for the implementation of e-learning.**

Recommendations by students	Response		
	I agree N (%)	I disagree N (%)	I don't know N (%)
Learners and lecturers should know some basic IT knowledge before embarking on E-learning.	100(100)	0(0)	0(0)
There must be establishment of effective internet connectivity in the e-learning environment	100(100)	0(0)	0(0)
There must be development of well secured e-learning portal or system to prevent external manipulation	100(100)	0(0)	0(0)
Learners and lecturers should have some basic IT knowledge before embarking on E-learning.	100(100)	0(0)	0(0)

Table: 6 indicates the recommendations that were made by students before the implementation of e-learning could be effective. All (100%) of the respondents agreed to the above listed recommendations. All these issues must be considered for effective implementation of the e-learning systems according to the researcher and the students of Holy Family Nursing and Midwifery Training College, Berekum.

**Table 7: Distribution of recommendation**

<b>Discussion</b>	<b>Yes (%)</b>	<b>No (%)</b>
Will online learning materials help improve the academic performances of students than the use of course hand-outs materials?	78	22

In relation to the table, 78% of the participants chose yes for the discussion that, online learning materials help improve the academic performances of students than the use of course hand-outs materials whilst 22% of them chose no. Some of the reasons for choosing yes include;

1. It is cost effective since much is not spent on books and other print out materials.
2. Online learning materials are easily accessible.
3. It is really portable since all can be stored on a single device.
4. Some said, it makes the studying process much quicker and easier for them since they find it easy searching for what they want rather than searching through pages of books.
5. It makes quicker and clear understanding of the study since the tutor will be able to use modern applications to help enhanced the materials like the use of graphics and figures and other needed images.
6. It is really convenient since students can choose to read or listen to the content wherever and whenever they want. Students who chooses audio form of materials can even listen to it all day long.
7. It also gives students variety of source and expose them to other related areas of the course.
8. It is very easy when retrieving information stored on the various devices for referencing.

9. These online materials can also be easily shared with our friends, colleagues and other people who need it.

10. It saves much time and save students from time spent copying lecturer notes since they have access to all of them.

**Table 8: Distribution of recommendation**

<b>Discussion</b>	<b>Yes (%)</b>	<b>No (%)</b>
Will recommend online learning to other students	100	0

From the above table, all the respondents for the study 100% choose yes, that they will recommend online learning to other students.

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSIONS, RECOMMENDATIONS**

#### **5.0 Overview**

This chapter presents the discussion of the findings of the studies as presented in the previous chapter. The findings of the study are digested and compared with the findings of similar studies by other scholars and students on the subject of E-learning. Also, in this chapter, conclusion of the whole study is made based on the specific objectives and the findings of the study and then recommendations are made based on the findings to address how the adoption and implementation of e-learning will help improve the academic performances of students of Holy Family Nursing and Midwifery Training College, Berekum.

#### **5.1 Discussion.**

E-learning is becoming the future of academics across the world. Any institution that want to catch up with the future has implemented the e-learning system and making good use of it and those who haven't are yet to implement the system. The study sought to assess the general knowledge students have on the e-learning system, advantages and disadvantages of e-learning and also some issues that need to be considered before the implementation of e-learning. Generally, majority (87%) of the respondents were within the ages of 23-27 which represents the prime age of most of students in the tertiary institution. In addition, a large number (66%) of the respondents were females which confirms nursing being a female dominated profession.

### **General knowledge on e-learning**

The respondents' knowledge was identified to be adequate. All (100%) of the respondents indicated that they have knowledge on the study. It was identified that, all respondents know the ultimate function of the e-learning.

This finding is in agreement with a studies conducted by (Dewar & Whittington, 2018), which suggested that most (90%, 92%) respondents had a good knowledge on e-learning systems.

### **Advantages of e-learning**

Overall, respondents indicated e-learning has greater advantages that overweight its disadvantages as majority (96%) noted e-learning if very flexible because students can access learning materials in their own convenient place and time outside the class room. A good number (82%) also agreed that, using e-learning resources saves a great deal of time on finding learning resources. 74% believed that e-learning can encourage learners to take an active part in learning. A large majority of the respondents (97%) adhere to the assertion that, e-learning can provide useful and quicker ways of assessing student's feedback. This finding agrees with the studies of Barker & Dickson, (Baker, 2019) that indicates that, assessment of students is made easier and simple with use of e-learning systems. Majority (88%) of the respondents also indicated that e-learning can enhance independent learning.

This indicate an agreement between this finding and the study that was conducted by Tahiri & Idrissi (Journal, 2017) which shows that, e-learning gives independency to online learners. Per the findings of this study, it shows that collaborative study is greatly enhanced as majority (90%) of respondents indicated, e-learning method provides an opportunity for collaborative learning despite the time and place.

### **Disadvantages of e-learning.**

On the contrary, some disagreements were expressed on some of the advantages hence indicating some disadvantages. Some (23%) of the respondents believed the e-learning cannot accommodate learners having different learning styles. Additionally, 10% of the respondents also believed that e-learning do not have the ability to enhance independent learning.

Also, 54% of the respondents did not agreed to the assertion disadvantage that e-learning is expensive compared to the traditional teaching-learning method. All (100%) of the respondents agreed to the fact that, there is lack of interactions physically if everything is done online. Majority (76%) of the respondents disagreed to the assertion that, cheating is unavoidable. They believed effective elimination of examination malpractice can best be done with use of e-learning. Unstable internet connectivity is the greatest challenge e-learning systems face especially in Ghana where internet networks are not stable and weak sometimes. All (100%) of the respondents agreed to the assertion that, unstable internet network is challenge.

### **Factors to consider before the implementation of e-learning systems.**

From the information that was gathered from the answered questionnaires, some of the measures to be put in place before the effective implementation of the e-learning platforms were discussed with respondents and results showed that, all (100%) of the respondents agreed to the fact that, learners and lecturers should have some basic Information and Communication Technology knowledge before embarking on the e-learning system. Again, all (100%) of the respondents ascertain to the fact that, there must be establishment of effective internet connectivity in the e-learning environment. Also, all (100%) of the

respondents agreed to the suggestion that, there must be development of well and secured e-learning portal or system to prevent external manipulation.

## **5.2 Conclusion**

The purpose of the study was to assess the general knowledge on E-learning from students of Holy Family Nursing and midwifery Training College, Berekum., examine the advantages and disadvantages of e-learning and also assess some issues to consider before the implementation of e-learning systems in the college.

From the study, it can be concluded that the students had an appreciable level of knowledge on the e-learning systems and most of them were able to indicate the advantages and disadvantages of e-learning which shows most of the students have adequate knowledge about the e-learning systems. All the advantages and disadvantages that were suggested to the respondents through the questionnaires we discussed thoroughly and the necessary recommendation were made. Also the recommended factors to be considered before the implementation of the e-learning systems were discussed and all the respondents agreed to the suggestions made.

## **5.3 Recommendation**

Bases on the findings of the study and the recommendations that were approved by the respondents, it is believed that when the following recommendations are well noted and taken into consideration, it will yield effective e-learning system which can help improve the academic performance of the students;

1. Learners and lecturers should some have basic Information and Communication Technology knowledge before embarking on E-learning as ascertain by the respondents during the study.

2. There must be establishment of effective internet connectivity in the e-learning environment.
3. There must be development of well secured e-learning portal or system to prevent external manipulation.
4. Learners and lecturers should have some basic IT knowledge before embarking on E-learning.

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# HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BREKUM

## QUESTIONNAIRE

### **How the adoption of e-learning can help improve the academic performance of students?**

The purpose of this questionnaire is to find out how the adoption of e-learning in the institution will help improve the academic performance of the students. The researchers are students in this institution, the Holy Family Nursing and Midwifery Training College, Berekum conducting the study for the fulfilment of their requirement for the award of a diploma in General Nursing from the Kwame Nkrumah University of Science and Technology. Your contribution towards the completion of this questionnaire is highly appreciated and information provided will be used only for academic purposes and treated with the utmost confidentiality. Thank you.

Note: Please provide answers to this questionnaire by writing where appropriate and by ticking an option that applies to you.

### **SECTION A: DEMOGRAPHIC CHARACTERISTICS**

#### **1. Age**

18-22

23-27

28-30

Above 30

#### **2. Sex**

Male

Female

**3. Marital status**

Single

Married

**SECTION B: GENERAL KNOWLEDGE ON E-LEARNING**

4. Have you ever heard of E-learning?

YES

NO

5. If yes, how did you hear it?

From Tutors of HFNMTTC

Peers or Friends

Online sites and webpages

Others

6. Have you ever used any e-learning system before?

YES

NO

7. If yes, what was it meant for?.....

**Please tick your answer.**

<b>Numbers</b>	<b>Knowledge on E-learning</b>	<b>True</b>	<b>False</b>	<b>Don't know</b>
1	E-learning can be explained as the learning conducted via electronic media, typically on the internet			
2	E-learning can done on all computers and smartphones that have access to internet connection			

### **SECTION C: ADVANTAGES AND DISADVANTAGES OF E-LEARNING**

#### **I. ADVANTAGES**

Please think about and read each statement carefully and tick to make a choice

<b>Numbers</b>	<b>Advantages of e-learning</b>	<b>I agree</b>	<b>I disagree</b>	<b>I don't know</b>
1	E-learning is very flexible because students can access learning materials in their own convenient place and time outside the class room.			
2	Using e-learning resources saves a great deal of time on finding learning resources			
3	E-learning can encourage learners to take an active part in learning			
4	E-learning can provide useful and			

	quicker ways of assessing students feedback			
5	E-learning can accommodate learners having different learning styles			
6	E-learning can enhance independent learning			
7	E-learning method provides an opportunity for collaborative learning despite the time and place			

**ii. DISADVANTAGES**

<b>Numbers</b>	<b>Disadvantages of e-learning</b>	<b>I agree</b>	<b>I disagree</b>	<b>I don't know</b>
1	Internet connectivity is a major problem in the environment of e- learning.			
2	Focus more on theory than practical			
3	Cheating is unavoidable			
4	There is lack of social interactions physically.			
5	Is expensive as compared to the traditional means of teaching and learning			

**SECTION D: ISSUES TO CONSIDER BEFORE IMPLEMENTATION OF E-LEARNING (RECOMMENDATIONS)**

<b>Numbers</b>	<b>RECOMMENDATIONS BY STUDENTS</b>	<b>I agree</b>	<b>I disagree</b>	<b>I don't know</b>
<b>1</b>	Learners and lecturers should have some basic IT knowledge before embarking on E-learning.			
<b>2</b>	There must be establishment of effective internet connectivity in the e-learning environment			
<b>3</b>	There must be development of well secured e-learning portal or system to prevent external manipulation			

8. Do you think online learning materials will help improve the academic performances of students than the use of course handouts material?

Yes [ ] No [ ]

9. If yes, why?

.....

.....

.....

10. Will you recommend online learning to other students?

Yes [ ] No [ ]