FACTORS AFFECTING THE ACADEMIC PERFORMANCE OF E-LEARNING MIDWIVES IN KYAMBOGO, NSAMBYA AND MENGO NURSING TRAINING INSTITUTIONS OF UGANDA

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DECLARATION

I declare that this research report about the, factors affecting the academic performance of elearning midwives in Kyambogo, Nsambya And Mengo Nursing Training Institutions Of Uganda is mine, original and has never been presented before any academic institution for any award.

NALUBEGA SUSAN SSENGABI	
Signature	
Date	

APPROVAL

This research report titled, "factors affecting the academic performance of e-learning midwives in Kyambogo, Nsambya and Mengo Nursing Training Institutions of Uganda" was under my supervision as the university supervisor. It is now ready for submission.

MADAM: NANTALE GRACE	
Signature	
Date	

DEDICATION

I dedicate this work to my husband Mr. Mbuya Lameck and children; Whitney, Warren and Warvin.

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I thank my husband Mr. Mbuya Lameck for the financial and all kind of support he has extended to me in day to day life and this course in particular.

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LIST OF OPERATIONAL TERMS

Academic performance: This is the level of grades attained from a test. In this study,

academic achievement or (academic) performance refers to the extent to which e-learning students achieve their educational

goals. In this regard a pass mark of 50% and above is considered

good performance whereas 50% and below is failure.

Audio: Sound, especially when recorded, transmitted, or reproduced.

Computer network: A computer network or data network is a telecommunications

network which allows computers to exchange data.

Computer network: A computer network or data network is a telecommunications

network which allows computers to exchange data. In computer networks, networked computing devices exchange data with

each other using a data link. The connections between nodes are

established using either cable media or wireless media.

Curriculum: Refers to the lessons and academic content taught in a school or

in a specific course or program.

Education: The process of receiving or giving systematic instruction,

especially at a school or university.

E-Learning: E-learning (electronic learning) refers to learning delivered using

electronic means through internet, CD-ROM to access the

education curriculum outside of a traditional classroom.

Electronic device: Are components for controlling the flow of electrical currents for

the purpose of information processing and system control. Prominent examples include transistors and diodes. Electronic

devices are usually small and can be grouped together into

packages called integrated circuits.

Internet: Is the global system of interconnected computer networks that

use the Internet protocol suite (TCP/IP) to link billions of devices

worldwide.

LIST OF ABBREVIATIONS

AMREF : African Medical Relief Fund

CCT : Computer-Centered Technology

CD : Compact Discs

DVDs : Digital Video Discs
E-Learning : Electronic Learning

EU : European Union

ICT : Information and Communications Technology

IICD : Institute for Information and Communication

Development

MP3 : Multiple Player three

US : United States

WHO : World Health Organization

ABSTRACT

E-learning is widely use globally by most continuing students and provides them with freedo to study whenever they are. The study was descriptive and cross sectional study design in which quantitative approaches of data collection and analysis were used. The study was carried out in three nursing training institutions that included; Public Health College Kyambogo, Nsambya Training School and Mengo School of Nursing and Midwifery. Data was analyzed by SPSS computer program.

Results showed that, students factors that influenced the academic performance of e-learners were; majority 48(86%) were females, 25(45%) were 36-45 years, 35(62%0 were married, 53(95%) were employed, 35(62%) had skills in computer use, 41(73%) had personal computers while 45(80%) never had easy access to computers. Gender influenced academic performance by 86.8%, age influenced by 73.3%, employment influenced by 85.1%, computer training influenced by 53.4%, possession of computers influenced by 66.9% and accessibility to internet away from school influenced by 75.6%.

Majority 45(81%) of the respondents reported that computers were not readily available were school, 36(65%) reported the school had unreliable internet access and 30(54%) reported the tutors were not readily available at the school.

Institutional factors were; availability of computers and tutors at the school were the major institutional factors that influenced academic performance and had a cumulative percentage variance of 73.6%. Ready availability of computers had a factor loading of 92.1% while ready availability of support from tutors while at school was 83.9%.

This implied that, neither most students had computers nor enough knowledge to use them while the school never had enough computers and tutors to enable students perform well. The study suggests that, students should buy personal computers, get enough training to use them and partner with internet service providers so that they access internet whenever they are. The school should also ensure that adequate computers are availed to students, provide them with reliable internet and recruit tutors that would always help students during their stay at school and while away from school.

CHAPTER ONE: INTRODUCTION

1.0 Background

This chapter contains the background of the study, problem statement, general objective, specific objectives, research questions, purpose, significance and the conceptual framework of the study. The need for online courses in many tertiary institutions is ever growing globally (WHO, 2015). Over 31% of all higher education learners in the United States of America at least had one online course by 2011 (Allen and Seaman, 2011) and while the overall student enrollment at the community colleges stagnated in 2011 where online enrollment within urban and rural tertiary institutions increased to by 8.2% (Crawford and Persaud, 2013).

There are a number of advantages of e-learning for bother the instructor and the learners if the requirements are fulfilled. These include; privacy, study during free time without any inconvenience, higher chances of analyzing the contents among other benefits. However in many developing countries, most e-learners have low academic performance, highly dropout, and institutions have failures in providing enough support to the learners (Lei and Gupta, 2010).

To address these concerns, a number of studies were carried out to assess the effectiveness of elearning instruction (Lorenzo, 2011). It is widely acknowledged, that, most of these studies are not easy to be carried out to fulfill the intention of the study.

High demand for education globally where more than 50% of people need training by 2015, roughly over 160 million people across the world will need education at universities. This will necessitate use of e-learning in the forms of on-line learning, computer-based learning, network learning, web-based learning and off line learning (Lei and Gupta, 2010).

E-learning can be defined as the use of the internet and intranet technologies for learning, providing a set of educational activities using electronic means (Zamzuri, 2012), a new platform for the delivery of educational materials and facilitation of interaction between the learner and instructor using computer network. Bakia, (2012) also defines it as a set of educational activities by using devices such as audio, video, computing and networking.

E-learning (electronic learning) refers to learning delivered using electronic means through internet, CD-ROM to access the education curriculum outside of a traditional classroom.

Distance learning, sometimes called e-learning, is a formalized teaching and learning system specifically designed to be carried out remotely by using electronic communication (Bardwell, 2009). Because distance learning is less expensive to support and is not constrained by geographic considerations, it offers opportunities in situations where traditional education has difficulty operating. Students with scheduling or distance problems can benefit, as can employees, because distance education can be more flexible in terms of time and can be delivered virtually anywhere (Park and Choi, 2009).

Popular distance learning technologies include: Voice-centered technology, such as Compact Discs (CD) or Multiple Player three (MP3) recordings or Webcasts, Video technology, such as instructional videos, Digital Video Discs (DVDs), and interactive videoconferencing and Computer-centered technology delivered over the Internet or corporate intranet. Studies indicate that distance learning can be as effective as the traditional format when the methods are appropriate to the teaching tasks, there is student-teacher interaction, and the teachers provide students with appropriate and timely feedback (Jonsen, Melkender and Hilli, 2013).

Averagely, 59% of US workers work more than 50 hours a week and frequently rely on their smart phones as productivity tools (or performance enhancing aids) during their working week (Belfield and Crosta, 2012).

Governmental surveys indicate that 70% of teachers in the European Union (EU) recognize the importance of training in ICT-supported pedagogies but their role in the development of a fully digitalized school was

Governmental surveys show that 70% of teachers in the European Union (EU) recognize the importance of training in ICT-supported pedagogies, but their role in the development of a fully digitalized school is still weak. According to the European Commission, only around 30% of students in the EU are in digitally supported schools and as many as 35% of students are in schools which exhibit both weak policy and weak support for digital technology (Jamshidi, 2012).

Asia has the world's highest regional growth rate for E-Learning, of 17.3%. Revenues from the sale of e-learning reached \$5.2 billion in 2011 and are expected to more than double to \$11.5

billion by 2016. The vast majority of these revenues will be generated from the sales of packaged content (Tang, Wong, and Wong, 2015).

North America is the most mature market for e-learning in the world. In 2011, the U.S.A. spent more on Self-Paced e-learning than anywhere else in the world. While the rate of growth in this market may seem low compared with other world regions (at a mere 4.4%), the revenues generated in this market are extremely high (Malik, 2011).

It is estimated that e-learning revenues in Latin America will almost double to \$2.29 billion in 2016 from \$1.16 billion in 2011. This is an equivalent to an annual growth rate of 14.6%. In general, Latin America is largely a consuming region, importing the majority of its learning content and technology from outside the region. This is likely to change the overcasted period as domestic supplies continue to gain market share (Hakimzadeh, et al., 2015).

In Asian Middle East Oman had the most e-learners at 19.6%, Lebanon 16% Turkey 12.9%, Kuwait 12.6% and Qatar at 11.3%. This was mainly because the government of Oman is interested in education and computer literacy thus made a lot of investments (Sokolovaa, 2011) However, the development of a mature e-learning market in Africa is still restricted by the lack of proper IT infrastructures and connectivity solutions. According to 2012 estimates, Internet penetration in Africa has reached only 15.6%. The people of Africa are willing to engage with new technologically-based tools to improve their education, knowledge and skills. However, the continent's infrastructure is proving to be a major challenge and an obstacle to meeting this growing level of demand (Leen, and Lang, 2013).

In Uganda, a number of tertiary institutions are increasingly adapting e-learning concepts. This concept is new among nursing institutions with a small proportion less that 20% of the nursing training institutions currently implementing e-learning. Currently, only 38% of the 11,759 midwives in Uganda are qualified enough and are fully registered, while African Medical Relief Fund (AMREF) is looking to make this 100 per cent. The approach has already been met with success in other nations, such as Kenya, where e-learning has been used to train more than 7,000 nurses in five years (WHO, 2014).

Without appropriate technological support, training programs appear to be less effective. Research has shown that e-learning proves to be an excellent way to achieve quality results in a short timeframe. Online-delivered learning, within a context of continuous education, is considered strategic because it, keeps the workforce apprised of their job functions' developing requirements, enabling them to make a positive impact within their organization and help that organization achieve its aims and goals. Aids succession planning by helping workers to acquire the knowledge and skills to help them progress within their organization, allows organizations to keep training budgets under tighter control, develop and retain existing employees and reduce the costs related to external human resources recruitment, selection and on-boarding (WHO, 2015). Despite the enormous benefits, there is limited information about the factors affecting the performance of e-learners among nursing training institutions, a case of among upgrading midwives

1.2 Problem Statement

In Public Health College Kyambogo, Nsambya Hospital Training School and Mengo School of Nursing and Midwifery e-learning midwives have not registered good academic performance despite; initiatives such as introduction of computer lessons as one of the course units, installing internet coverage in the mentioned institutions, among other factors. More than 40% students have low academic performance (MOH, 2014). E-learning has been presented as a tool for improving teaching and learning yet adaption and integration by academicians has been limited. In Uganda, factors such as lack of time, inadequate training, facilities and equipments, trainers, poor infrastructural development and monetary resources are the frequently cited hindrances to adaption of e-learning (MOH, 2014).

Nurse training institutions in Uganda like other developing countries are increasingly adopting and using e-learning in their teaching and learning processes as one of the means to enable health workers study from their places of work (MOH, 2014). This has been done through provision of computers and trained tutors in information technology, teaching students computer skills among others. However, students are still registering low academic performance.

The government of Uganda has setup various initiatives through which to support ICT inception in education, the notable ones include; Education Management Information System, School net Uganda Institute for Information and Communication Development (IICD). However many higher institutions are still struggling to attain the minimal educational benefits from implementing e-learning (Kasse and Balunywa, 2013). This has led to consequences such as; dropping out before completing the course, high expenses on accessing internet and hiring computer experts, and graduating semi-skilled nurses who cannot manage Health Information Management Systems hence poor service delivery.

Despite the enormous benefits, e-learning has a higher drop-out rate than traditional delivered instruction and very little is known about why some users stop their online learning after their initial experience (Mohamed and Wafaa, 2012). The reason for this has not been fully examined. In Uganda, e-learning concept is relatively new among nursing institutions. A few have implemented it and those that have implemented it, there is limited information regarding uptake, and the factors that affect implementation of e-learning in Nursing institutions despite the drives to develop and use e-learning and teaching within nursing and health science disciplines. This study therefore seeks to examine the challenges facing the implementation of e-learning in nurse training institutions in Uganda,

1.3 Objectives of the study

1.3.1 Main objective

To determine the factors affecting the academic performance of e-learning midwives among nursing training institutions in Uganda with an aim of improving academic performance in upgrading midwives to increase competence in health care practice and thus quality health care.

1.3.2 Specific objectives

The study was based on the following Specific objectives

- To determine the student factors affecting the academic performance of e-learning midwives in nurse training institutions in Uganda.
- To determine the level of academic performance of e-learning midwives in nurse training institutions in Uganda.

• To identify the institutional factors affecting the academic performance of e-learning midwives in Nurse Training Institutions in Uganda.

1.4 Research questions

The study answered the following questions

- What are the students factors affecting the performance of e-learning midwives in Nurse Training Institutions in Uganda?
- What is the level of academic performance of e-learning midwives in nurse training institutions in Uganda
- What are the institutional factors affecting the academic performance of e-learning midwives in nurse training institutions in Uganda?

1.5 Significance of the study

The government/Ministry of Health will use research findings to initiate e-learners to different strategies they can adapt to access e-learning concepts and raise awareness of how to they can be applied at low costs. These will be given adequate consideration in the education curriculum of upgrading Nursing Institutions in the next financial year.

Also policy makers will base on the results to design appropriate policies that will help to strengthen the measures to improve e-learning.

Health organization will use findings while presenting at health conferences to compare various studies regarding factors which contribute to e-learning such that they solicit funds from different stakeholders and sponsors to facilitate the strategy to promote E-learning.

The study will help scholars who would wish to modify their theories concerning E-learning for upgrading nursing institutional and other fields for general academic performance.

Findings will be used as a source of reference by future researchers on related topics. The gaps that will be identified will be bridged by researcher.

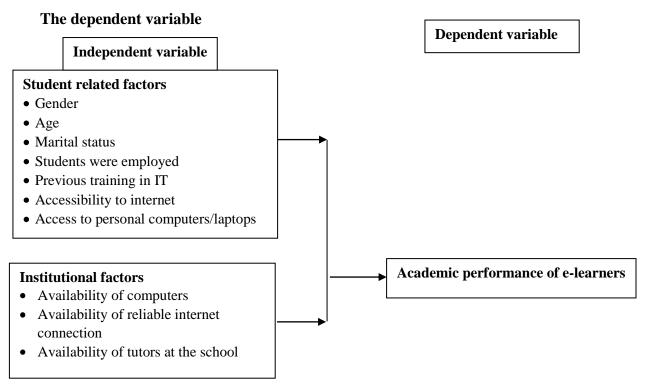
The e-learners in upgrading nursing institutions will identify and fill the gaps in their performance and take suggested measures in this study for better performance.

1.6 Purpose of the study

This study intended to determine the factors affecting the academic performance of e-learners.

1.7 Conceptual Framework

Figure 1: Conceptual Framework



The independent variables were the factors affecting the academic performance of e-learning midwives while the dependent variable is the academic performance of midwives.

Student related factors were; gender, age, marital status, working experience, average daily internet use, previous training in IT, access to personal to computers/laptops, and affordability of charges. The indicators of levels of academic performance are; course units covered in the previous semester and marks scored.

Institutional factors were; availability of computers, availability of reliable internet connection, support and supervision from tutors/mentors availability of tutors at the school, government policy on communication and facilities provided by the Institute.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter presented information from acknowledged studies related to the study at hand. This information was reviewed in relation to the study specific objectives that included; assessing the students factors affecting the performance of e-learning midwives in Nurse Training Institutions, to determine the attitude of e-learning midwives towards e-learning in Nurse Training Institutions and to determine the institutional factors affecting the academic performance of e-learning midwives in Nurse Training Institutions.

2.1 Student factors affecting the performance of e-learning midwives in Nurse Training Institutions

2.1.1 Age

Leen, and Lang, (2013) revealed that the age of the student influenced the performance in elearning. Lang and Leen hold that the less the age of the learner, the more his tendency to use e-learning and his satisfaction of it. The participants aged 18-25 (69.8 %) in this study preferred E-learning to traditional learning. However, other studies have shown that the people aged between 25 to 50, due to their high responsibility and the problem of physical presence in the classroom, shad more satisfaction with e-learning (Brouwers, Makarski, and Levinson, 2010).

2.1.2 Marital Status

The marital status of e-learning student highly influenced their academic performance. A significant percentage of online students were primary caregivers to dependent children or adults (Capra, 2011). Care giving consumed a lot of time which left very limited time for the e-learners to concentrate on their studies. The duties of parenting in most cases negatively impact classroom performance. Lynn and Robinson-Backmon (2006) found, for instance, that students with children performed below their peers in accounting classes because they had less time to revise their notes or had full concentration during face-to-face lectures.

Amitava Raychaudhuri, et. al., (July 2010), found that numerous studies had been done to identify those factors which affected student's academic performance. The students' academic

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performance depended on a number of socio-economic factors like students' attendance in the class, family income, mother's and father's education, teacher-student ratio, presence of trained teacher in school, sex of the student, and distance of schools.

Kernan, Bogart and Wheat (2011) note that accessibility to internet academic leads to success of graduate a student gets due to availability if the required information.

There was negative relationship between college credit and stress but weak relationship between GPA (Grade Point Average) and stress. (Zajacova, Lynch and Espenshade, 2005)

Robert & Sampson (2011), found that the member of educational board were to be educated and their impact on school was positive, for professional development it was essential for student learning. The students who were actively engaged in the learning process were observed to have had positive correlation with the CGP. A Study effort from student and the proper use of the facilities provided by the institution to the student, a good match between students' learning style and were positively affected the student's performance (Norhidayah Ali, et. al., 2009).

Oye, and colleagues (2012) held the view that student performances were linked with use of library and level of their parental education and possession of skills in computer use. The use of the library positively affected the student performance. The academic environment was the effective- variable for students and had positive relationship with fathers' education and grade level (Kirmani & Siddiquah, 2008).

Proper Guidance Noble (2006), students' academic accomplishments and activities, perceptions of their coping strategies and positive attributions, and background characteristics (i.e., family income, parents' level of education, guidance from parents and number of negative situations in the home) were indirectly related to their composite scores, through academic achievement in high school.

2.1.3 Education status

A number of studies were conducted to evaluate the efficacy of college placement and readiness examinations. Belfield and Crosta (2012) and Jenkins, Jaggars, and Roksa (2009), found student achievement on placement exams to be only weakly correlated with various aspects of class performance. Studies by Mattern and Packman (2009), and Peng, Le, and Milburn (2011) indicated, however, that college entrance and placement exams were useful predictors of student

performance. Several studies suggested math placement exams were more likely than reading and writing exams to accurately predict course outcomes (Hughes & Scott-Clayton, 2011; James, 2006; Jenkins et al., 2009),

The educational method played a significant role in increasing the accountability of the individuals to update their knowledge and skills in e-learning. Choi and Park, (2009) divided the individuals' satisfaction of this method in two groups: the factors before starting the course (age, gender, employment status, his knowledge of e-learning, attitudes and motivation) and external factors (financial problems ,the facilities provided by the Institute, the Institute support, the preparation of educational materials, and their quality. They noted that, younger learner had better performance compared to older learners mainly because younger learners had more time to dedicate to studies unlike their counterparts.

Employment and academic preparedness also influenced the performance in e-learning. A key finding was the importance of employment and academic preparedness as predictors of successful course completion. Of the students employed 12 or fewer hours per week, 75% completed the course and passed the final exam, whereas only 40% of the students employed more than 12 hours per week experienced the same positive outcome (Ozturan, and Kutlu, (2010).

The importance of employment as a predictor of final exam performance and successful course completion was noteworthy. Work was likely to reduce the number of hours available for study. It impacted performance by diminishing opportunities for meaningful interaction with peers and instructors. Such interactions were clearly important (O'Neill, et, al., 2011), and already restricted in online settings. Feelings of isolation appeared to be common among online community college students (Bambara, Harbour, Davies, & Athey, 2009), and any sense of isolation was likely to be exacerbated by employment when work requirements limited opportunities to interact with other class members engaged in online activities. Studies found that participation in online course discussions, in particular, can be a significant predictor of final exam performance (Wolff and Dosdall, 2010). The latter study also found online course discussion participation to be a significant predictor of course completion.

2.2 Institutional factors affecting the academic performance of e-learning midwives in Nurse Training Institutions

2.2.1 Availability of learning facilities

Availability of learning facilities helps learners to easily access the required information. Karemera, (2003) found that students performance was significantly correlated with satisfaction of academic environment and the facilities of library, computer lab and etc. in the institution. With regard to background variables, he found a positive effect of high school performance and school achievement he found no statistical evidence of significant association between family income level and academic performance of the student.

2.2.1 Availability of computers

Lorenzo, (2011) in a study on, On-line education learner engagement & academic success strategies at community colleges noted that less investments in mandatory counseling and online orientation programs targeted students with poor academic skills and encouraged hybrid enrollment, had been put in place. Most students applied on-line without first assessing their potential to manage e-learning program. This provided no practical alternative to policies outright prohibiting at-risk students from enrolling in online courses. Counseling and orientation programs for online students had been linked to success in online courses and had been credited with increasing online retention rates among community college students (Lorenzo, 2011; Wojciechowski & Palmer, 2005).

Nassuora, (2012) noted that, mobile learning that utilized ubiquitous devices that were successful approach now and in the future because these devices (PDA, tablet PC, smart phone) were more attractive among higher education students for several reasons. Some revealed that such devices were cheaper compared to normal PCs; also, they are satisfactory and economical tools. Mobile devices have become more affordable, effective, and easy to use.

2.2.2 Learning styles

Zamzuri, et al., (2011) revealed that, the positive and negative effects of the learner satisfaction on development of e-learning; the results showed that the student's learning style, trusted in instructor, and possibility of error amendment had a positive impact on learners' satisfaction. Designing a curriculum fitting students' learning styles, especially in the elementary level

learners, had positive effects on the learner's tendency to utilize this training. Sun et al, (2008) however, do not consider the role of learning styles essential in the success of e-learning and more emphasize the personality traits of introvert and extravert people. They also believed that introvert people were more inclined to use e-learning and using this method for them has a higher success rate. Selim, in his research, had studied the success factors of e-learning. He believed that the success or failure of e-learning program depended on several factors. Thus, it was limited to the presence or absence of one or more factors in a clear-cut way).

2.2.3 Traditional Teaching method

Mahafdah (2008), in his search talked about the most important factors influencing the choice between e-learning and e-learning plus traditional learning. The search included the concept of e-learning and types of e-learning and what the advantages of e-learning, the main obstacles facing e-learning and the requirements of a successful e-learning from the viewpoint of the researchers, and what were the most important stages of electronic material production and future of e-learning in higher education institutions.

2.2.4 Amendment and trust in the instructor

Torres, Gross, & Dadashova, (2011) also believed that repeatability and possibility of amendment and trust in the instructor and other learners can play roles in the learner's positive attitude toward e-learning and increasing their satisfaction of it, thereby leading to the positive attitude toward this method and increasing the individual learning. However, prolonged use of this educational method resulted in the learner's increased skills and desired to use the method, hence increased the efficiency of e-learning. On the other hand, disadvantages such as computer addiction, poor interaction with the environment, and the health complications could lead to negative effects on satisfaction of this method.

2.2.5 Use and design of e-courses

Lei, & Gupta, (2010) sought to disclose the impact of the use and design of e-courses on academic achievement for students of Faculty of specific education, and its relationship to guide student learning through the Internet, results showed that the use of e- courses helped to increase the academic achievement of students, compared to the usual way which increased the student

attitude to change and need to use e-learning. Results showed that using e-courses and e-content nature met user requirements and eased access to educational content which assisted the learner to perform its functions more. This increased the quality of electronic content and quality of education.

O'Neill, et, al., (2011) showed that, most students in developing countries where the use of computers was low have low academic performance because they have poor internet access, lack computers and tutors. Most f them live in remote areas that lack electricity and poor internet access.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter includes; research design, source of data, study setting, sample size calculation,

sampling technique, sampling procedure, study variables, inclusion criteria, exclusion criteria,

data collection techniques, data collection instruments and measurement, data collection

procedure, data analysis, quality control, dissemination of the study results, ethical issues and

limitations of the study. Research methodology means the methods the research will use to

collect data (Shahrokh and Dougherty, 2014).

3.1 Research Design

A research design is a detailed plan of how the research study was executed (Amin, 2005). The

study adapted a descriptive- cross sectional study design in which quantitative approaches of

data collection and analysis was used. Quantitative research design was used because the

researcher desired to use statistical frequencies to measure the extent to which factors that

influenced the performance of E-learners affected their performance.

3.2 Sources of data

The study was based on both primary and secondary data.

3.2.1 Primary data: Here information was derived directly from the respondents.

3.2.2 Secondary data: Information was gathered from acknowledged studies in relation to the

study objectives. These mainly included; on-line journals, electronic books, library books,

research dissertations, learning websites, etc.

3.3 Study setting

The study was carried out in three Nursing Training Institutions that included; Public Health

College Kyambogo, Nsambya Training School and Mengo School of Nursing and Midwifery.

Public Health College Kyambogo, is located in Nakawa Division in Wakiso District along

Kampala-Jinja Road. It is about 10 miles from Kampala Capital City. It has a total number of

300 students with 30 E-learners.

14

Nsambya Training School is located in Nsambya Parish, Makindye Division Kampala district.

The school trains nurses and midwives traditional on fulltime as well as midwives on E-learning.

The school has a total of 650 with 16 E-learners

Mengo School of Nursing and Midwifery is located in Lubaga Division Kampala District. It is

located less than a kilometer from Kampala Capital City. It has an enrollment of 450 students

with 20 E-learners.

3.4 Study Population

From the three Nurse Training Institutions, an accessible population of 66 e-learning midwives

was considered. It was from this a sample size was drawn.

3.4.2 Inclusion Criteria

The study included all second year e-learners in the three selected Nurse Training Institutions

(Kyambogo Public Health College, Nsambya Training School and Mengo School of Nursing)

who accepted to participate in the study.

3.4.3 Exclusion Criteria

The study never considered all students who were unable to give valid data for the study. These

included; the sick and non e-learners.

3.5 Sample Size Calculation

A total of 56 respondents who were e-learners were selected from an accessible population of 66

e-learners in the three training schools. Sample size was determined by the Slovenes formula

because helped to derive samples from a relatively small population and it was simplified which

made it easy to easily be understood.

n= N

 $1 + N (e)^2$

Where:

n = Sample size

N = Population size

e = standard margin of error (5% or 0.05)

15

n=
$$\frac{66}{1+66(0.05 \times 0.05)}$$

n= $\frac{66}{1+66(0.0025)}$

n= $\frac{66}{1+0.165}$

n= $\frac{66}{1+0.165}$

n= $\frac{66}{1+0.165}$

n= $\frac{66}{1+0.165}$

n= $\frac{66}{1+0.165}$

3.6 Sampling

3.6.1 Sampling Technique

The study used non probability sampling to select respondents. Not every population member had a chance to be selected as a respondent (Creswell, 2012). The researcher used convenient sampling to select the respondents from the particular schools.

3.6.2 Sampling procedure

The researcher used convenient sampling to select 16 E-learners from Nsambya, 20 e-leaners from public Health College Kyambogo and 20 e-learners from Mengo School of Nursing to make a total of 66 e-learners. Such numbers were selected from the above schools depending on the enrollments they had. Data was collected at the time when the e-learners reported back to their respective schools on study block. The researcher visited the e-learning classes of the respective schools and conveniently selected the students that she found in the classes until the sample size was obtained.

3.7 Study variables

3.7.1 Independent variable

The independent variables of the study included; the factors affecting the performance of elearners. These were identified as student related and institution related factors.

3.7.2 Dependent variable

The dependent variable was academic performance of e-learning midwives.

3.8 Data Collection techniques

The researcher used different approaches of data collection that were guided by research questions, objectives, type of study design, and type of data collected. These were self administered questionnaires.

3.9 Data Collection tools and measurement

The study used questionnaires to collect data for the study

3.9.1 Questionnaire

Questionnaires were used for data collection. These had both structured and unstructured questions. They were advantageous in the following ways.

- First hand information was got from the respondents about the study problem, since they wrote the answers themselves.
- Respondents had privacy during answering which helped them to reveal their real perceptions of the problem at hand.
- Responses were always referred to by the researcher during data analysis. This helped the researcher to always keep track of the right responses.
- Unstructured questions helped the respondents to give their own views about the concept under study. This was because they had an open mind about the problem at hand.
- Large amounts of information were collected from a large number of people in a short period of time and in a relatively cost effective way. This was because each respondent answered the questions at the place of convenience.
- The results were quickly and easily quantified by the researcher through the use of computer software packages.

3.10 Data Collection Procedure

After obtaining consent from each respondent, a questionnaire was handed to the respondent. They were distributed by the researcher to the respondents from their training schools. They answered them during their free time and returned them the next day. Answered questionnaires were collected by the researcher herself. She checked through them to confirm whether all questions were attempted. The researcher humbly requested the respondents to answer unanswered questions before she left or clarified them for the respondent in case they were not clear.

3.11 Data analysis

Data was cleaned, coded and entered into Microsoft Office Excel version 7. Descriptive statistics and analysis were carried out using the Statistical Package for Social Sciences (SPSS) version 16.0. Descriptive (Univariate) data was presented as frequencies and percentages, and illustrated using frequency tables, pie charts and bar graphs. In order to evaluate responses on attitudes, mean scores were calculated for each item that was included in the 5-point likert scale. A mean score in the range of 1.0-1.75 was interpreted as a very negative attitude; 1.76-2.5 (negative); 2.51-3.25 (neutral); 3.26-4.00 (positive); 4.01-5.00 (very positive).

The relationship between the factors affecting e-learning and the academic performance of e-learners. This was analyzed post-hoc using Pearson correlation. Respective correlation coefficients and their P-values were calculated. For all statistical tests, a P-value of less than 0.05 was considered significant.

3.12 Quality Control

3.12.1 Pilot study

The research tool was pretested in a pilot study in Mulago School of Nursing and Midwifery before the study was carried out in the three mentioned nursing schools. This helped to make necessary adjustments before the study was carried out in the study areas. Redundant questions that did not add any value to the study were removed.

- i. The research assistants were trained by the principle investigator to assist in administration of interview schedules.
- ii. Interview questionnaires were checked for consistence and completeness of information obtained from the study participants so as to ensure reliability of the collected information.
- iii. Before closure, all answered interview papers were double checked for completeness and approved for storage by the principal investigator.

iv. The questionnaires were kept in safety lockers under lock and key and were only be accessible by the principal investigator.

3.13 Dissemination of the study results

Six copies of the findings were produced. One was submitted to International Health Sciences University, School of Nursing, the second copy was submitted to IHSU Library, and the third, fourth and fifth copies was submitted to local administrators of Mulago School of Midwifery and Nursing, Nsambya Hospital Training school and Mengo Nursing training School respectively while the sixth copy was retained by the researcher for personal reference.

3.14 Ethical Issues

The researcher got a letter of introduction from IHSU Research Ethics Office that introduced her to the administrations of Public Health College Kyambogo, Nsambya Hospital Training school and Mengo Nursing training School. These granted her permission to carry out the study in those particular schools. Administrators then introduced the researcher to the heads of departments who allowed the researcher to select the desired number of respondents from the available students. Confidentiality was assured to all respondents before they were interviewed. The respondents were only included in the study after they had understood the purpose of the study and consented to take part.

3.15 Limitations of the study

Self reported results could lead to recall bias

Sample size was very small so the results may not be generalized to other areas in the country

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents the findings of the study based on the specific objectives.

4.1 Findings on the student factors affecting academic performance of e-learning midwives

Table 1: Findings on the student factors affecting academic performance of e-learning midwives

Indicator	Characteristic	Frequency	Percentage
Gender of the respondents	Females	48	86
	Males	08	14
Respondents were employed	Yes	53	95
	No	03	05
Respondents any training on how to	Yes	21	38
use a computer	No	35	62
Respondents had personal	Yes	15	27
computers/laptops	No	41	73
Respondents had easy access to	Yes	11	20
internet away from school	No	45	80
Total		56	100

Out of the 56 respondents that participated in the study, majority 48(86%) were females while the minority 8(14%) were females. This implied that most respondents in the study were females.

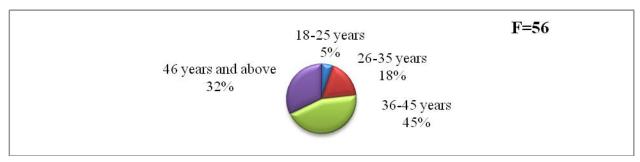
A large number 53(95%) of the respondents were employed while a few 3(5%) were unemployed. This meant that, most of the students interviewed were working.

Majority 35(62%) of the respondents never had skills in computer use while 15(38%) were skilled in computer use. This implied that most of the respondents did not know how to use a computer to retrieve information regarding their course.

There were 41(73%) respondents who never had personal computers while 15(27%) had personal computers. This implied that most of the respondents did not have computers.

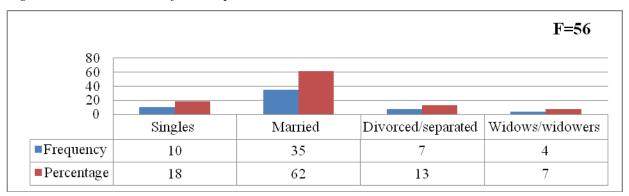
Majority 45(80%) of the respondents never had easy access to computers while 11(20%) had access to computers. This implied most student could not get computers to do their work.

Figure 2: Age of the respondents



About the age of the respondents; majority 25(45%) were 36-45 years, 18(32%) were 46 years and above, 10(18%) were 26-35 years while the minority were 03(5% between 18 and 25 years. This implied that, majority of the respondents were between 36-45 years as shown in the figure above.

Figure 3: Marital status of the respondents



Majority 35(62%) of the respondents were married, 10(18%) were singles, 7(13% were divorced/separated while the minority 4(7%) had lost their spouses. This indicated that most of the respondents were married as illustrated in the figure above.

4.2 Findings on the institutional factors affecting the academic performance

Table 2: Findings on the institutional factors affecting the academic performance

Indicator	Characteristic	Frequency	Percentage
Computers were readily available	Yes	11	19
at the school	No	45	81
Students had access to reliable	Yes	20	35
internet connection while at school	No	36	65
Tutors/mentors were readily	Yes	26	46
available for support supervision while at school	No	30	54
Total		56	100

Majority 45(81%) of the respondents reported that computers were not readily available are school while 11(19%) reported that computers were readily available at school. This implied that the school had few computers to serve all the students that needed them.

There were 30(54%) respondents who reported that the tutors were not readily available at the school while 26(46%) reported that tutors were readily available. This implied that, students never got the tutors to serve their needs as they needed them.

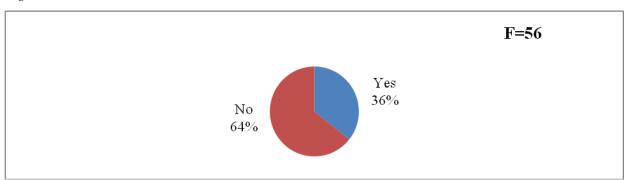


Figure 4: Student access to reliable internet connection while at school

Most 36(64%) of the respondents never had unreliable internet access while at school while 21(36%) had reliable internet access while at school. This implied that the school had poor internet service.

4.3 Level of academic performance of e-learning midwives

Table 3: Level of academic performance of e-learning midwives

Students covered the following course units in the last semester.

SN	Course unit	Marks scored				Total		
#	Rating	1		2	3	4	4	
	Marks	Below 50	50-54	55-64	65-69	70-74	75-100	56
	Grade	Fail	Fa	air	Good	Very	good	
1	Normal midwifery	10	18	22	04	1	1	56
2	Pediatrics 2	13	11	27	05	0	0	56
3	Tropical medicine	09	28	19	0	0	0	56
4	Domiciliary	12	22	16	3	2	1	56
5	Mental health	20	14	09	06	04	03	56
6	Community health	13	15	12	08	05	03	56

The performance of the students was measured in the six subjects namely; Normal Midwifery, Pediatrics, Tropical Medicine, Domiciliary, Mental Health and Community Health. The marks

were graded into four sections namely; section 1 indicated failure which was below 50%, section two was regarded a fair mark which was from 50-64, section three was regarded a good mark which was 65-69% and section four was a very good mark which was from 70%-100%.

Findings showed that, in Normal Midwifery; 10 (18%) of the students failed, 30(54%) had a fair mark, 4(7%) had a good mark while 2(4%) had a very good mark.

In pediatrics 2; 13(23%) failed, 38(68%) had a fair mark, 5(9%) had a good mark and there was no student with a very good mark.

In tropical medicine; 9(16%) failed, 47(84%) had a fair mark, and there was no student with either a good or very good mark.

In domiciliary; 12(21%) failed, 38(68%) had a fair mark, 3(5%) had a good mark and there were 3(5%) students with a very good mark.

In mental Health; 20(36%) failed, 23(41%) had a fair mark, 6(11%) had a good mark, and 7(13%) had a very good mark.

In community health, 13(23%) failed, 39(70%) had a fair mark, 8(14%) had a good mark while 8(14%) had a very good mark.

.4 Student factors that influenced their academic performance in e-learning

Table 4: Factor results analysis of the student factors that influenced their academic performance in e-learning

Rotated Component Matrix ^a					
	1	2	3		
Gender of the respondents	.868				
Age of the respondents			.733		
Respondents were employed	.851				
Respondents any training on how to use a computer		.534			
Respondents had personal computers/laptops		.669			
Respondents had easy access to internet away from school		.756			
Total	1.689	1.345	1.137		
Percentage of Variance	24.136	19.214	16.242		
Cumulative percentage	24.136	43.350	59.592		

Students' factors considered variables that included; gender, age, being employed, knowledge in computer use, possession of personal computers and accessibility to internet while away from school. Findings revealed that such factors influenced academic performance by 59.5%.

Gender influenced academic performance by 86.8%, age influenced by 73.3%, employment influenced by 85.1%, computer training influenced by 53.4%, possession of computers influenced by 66.9% and accessibility to internet away from school influenced by 75.6%.

4.5 Factor results analysis of the institutional factors that influenced their academic performance in e-learning

Table 5: Factor results analysis of the institutional factors that influenced their academic performance in e-learning

Rotated Component Matrix ^a		
	Component	
	Computer availability	Tutor availability
Computers were readily available at the school	.921	
Tutors/mentors were readily available for support supervision while at school		.839
Total	1.149	1.058
Percentage of Variance	38.310	35.274
Cumulative percentage	38.310	73.585

From the table above; availability of computers and tutors at the school were the major institutional factors that influenced academic performance and had a cumulative percentage variance of 73.6%. Ready availability of computers had a factor loading of 92.1% while ready availability of support from tutors while at school was 83.9%.

4.6 Factor results analysis of the academic performance that influenced their academic performance in e-learning

Table 6: Factor results analysis of the academic performance that influenced their academic performance in e-learning

Rotated Component Matrix ^a			
	Pediatrics	Community health	
		Mental Health	
		Domiciliary	
Pediatrics 2	.838		
Community health		.612	
Mental Health		.576	
Domiciliary		.536	
Total	1.519	1.336	
Percentage of Variance	25.309	22.259	
Cumulative percentage	25.309	47.567	

The study questionnaire measured students' performance in six subjects that were done in second semester. These included; normal midwifery, pediatrics, tropical medicine, domiciliary, mental health and community health. Out of the six subjects; four were passed while two were failed as illustrated in the table above.

Pediatrics had a factor loading of 83.8%, community health had a factor loading of 61.2%, mental health had a factor loading of 57.6% while domiciliary was the least performed among the passed subjects with a factor loading of 53.6%. it was however found out that, the general performance was at 47.6% which indicate poor academic performance.

4.7 Correlation

Table 7: Correlation between student factors and academic performance of e-learning midwives

		Social demographic	Performance
as sial	Pearson Correlation	1	372
social demographic	Sig. (2-tailed)		.468
	N	7	6
Performance	Pearson Correlation	372	1
	Sig. (2-tailed)	.468	
	N	6	6

The Pearson correlation indicates that there is no relationship between students' factors and their academic performance in e-learning

Table 8: Correlation between institutional factors and academic performance of e-learning midwives

		Institutional factors	Performance
Institutional factors	Pearson Correlation	1	1.000^{*}
	Sig. (2-tailed)		.011
	N	3	3
Performance	Pearson Correlation	1.000*	1
	Sig. (2-tailed)	.011	
	N	3	6

^{*.} Correlation is significant at the 0.05 level (2-tailed).

Respondents' institutional factors significantly influenced their academic performance in elearning by 100%. This implied that, institutional factors were major determinants for academic performance. Results indicated a super strong positive and significant relationship between the two variables (r=1.000, p<0.05) as shown in the table 7.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.0 Introduction

This chapter presents the discussion of the significant findings of the study in relation to the research questions

5.1 Discussion of results

5.1.1 Discussion of student factors that influenced their academic performance

Out of the 56 respondents that participated in the study, majority 48(86%) were females and gender influenced academic performance by 86.8%. This implied that gender was a major determinant in academic performance of e-learners where most of them were females. The results also reflected that majority of the females were married which could have limited the time they spared for studies. They could have failed to balance up their time table thus having less time to revise which eventually resulted in poor academic performance. Similarly, in a study done in Bangladesh, the gender of the student influenced e-learning performance where females performed poorer than males because of concentration on domestic chores (Amitava, et. al., 2010).

Further on, 25(45%) were 36-45 years and age influenced academic performance by 73.3%. This age group was relative old for active academic concentration because of the many demands people of that age have. Many of these people lack reliable income sources to sustain their day today lives with their families which lead to poor time management and making of choices between work and studies unlike younger and older people. This could have led to poor academic performance. Other studies also revealed that the lower the age the more time a learner has for studies and better performance. The participants aged 18-25 (69.8 %) in this study preferred E-learning to traditional learning (Leen, and Lang, 2013).

There were 53(95%) respondents who were employed and employment influenced by 85.1%. this implied that it negatively affected the academic performance of e-learners because little time was reserved for studies. This concurs with Amitava et. al., (2010), who found that the

attendance and academic performance of e-learning students' was influenced by family income, mother's and father's education, and the type of employment done.

Further on, 35(62%) of the respondents never had skills in computer use, where computer training influenced by 53.4%. E-learning being a computer based course, it was necessary for every student to have computer skills in order to be able to retrieve information. On the contrary, Oye, et al., (2012) held the view that student performances were linked with use of library and level of their parental education and possession of skills in computer use.

Unfortunately 41(73%) never had personal computers while possession of computers influenced academic performance of e-learners by 66.9%. Possession of computers made it easy for students to access all the information they needed at all time yet they could also seek help from their tutors as evidenced in a study carried out in America where 98% of the student who had access to computers performed high in their assessment test. Similarly Nassuora, (2012) noted that, mobile learning that utilized ubiquitous devices that were successful because these devices (PDA, tablet PC, smart phone) were more attractive among higher education students for several reasons. Some revealed that such devices were cheaper compared to normal PCs; also, they are satisfactory and economical tools. Mobile devices have become more affordable, effective, and easy to use. Lack of computers failed students to retrieve information that was sent to them by their tutors thus could not grasp the concepts in time as they were required to do so.

Finally 45(80%) never had easy access to computers. Accessibility to internet away from school influenced by 75.6% which was a great determinant in academic performance among e-learners. this also failed them to access what their tutors had taught them or wanted to inform them during their time away from school.

5.1.2 Significant institutional factors that influenced their academic performance in elearning

From the findings; availability of computers and tutors at the school were the major institutional factors that influenced academic performance and had a cumulative percentage variance of 73.6%. Majority 45(81%) of the respondents reported that computers were not readily available are school, Ready availability of computers had a factor loading of 92.1%.

There were 30(54%) who reported that the tutors were not readily available at the school, while ready availability of support from tutors while at school was 83.9%. This failed the students to know what they were supposed to learn at a particular moment which contributed to their poor academic performance. In many tertiary institution sin uagnada tutors are poorly motivated which has led many of them to neglect their duties. Similar findings were found in another study where it was stabled that on-line education learner engagement & academic success strategies at community colleges noted that less investments in mandatory counseling and online orientation programs targeted students with poor academic skills and encouraged hybrid enrollment, had been put in place (Lorenzo, 2011). Most students applied on-line without first assessing their potential to manage e-learning program.

Finally there were 36(65%) respondents who reported that the school had unreliable internet access which failed students to access what tutors had posted on their internet accounts. This is a general problem among most of the tertiary institutions in Uganda which has failed the students to access all the information they need in regard to their courses. On the contrary, disclosed that availability of internet at school eased e-learning due to easy access to information (Lei, & Gupta, 2010).

5.1.3 Discussion of the level of academic performance

Findings showed that, majority of the students 50(89%) performed poorly in Normal Midwifery where; 10 (18%) of the students failed, 30(54%) had a fair mark, 4(7%) had a good mark while 2(4%) had a very good mark.

In Pediatrics 2; 13(23%) failed, 38(68%) had a fair mark, 5(9%) had a good mark and there was no student with a very good mark. This also indicated poor academic performance. In tropical medicine; 9(16%) failed, 47(84%) had a fair mark, and there was no student with either a good or very good mark which also indicated poor academic performance. In domiciliary; 12(21%) failed, 38(68%) had a fair mark, 3(5%) had a good mark and there were 3(5%) students with a very good mark which was also a poor academic performance. In mental Health; 20(36%) failed, 23(41%) had a fair mark, 6(11%) had a good mark, and 7(13%) had a very good mark. In community health, 13(23%) failed, 39(70%) had a fair mark, 8(14%) had a good mark while 8(14%) had a very good mark. This implied that most students poorly performed in almost all the subjects. On the contrary, sought to disclose the impact of the use and design of e-courses on

academic achievement for students of Faculty of specific education, and its relationship to guide student learning through the Internet, results showed that the use of e- courses helped to increase the academic achievement of students, compared to the usual way which increased the student attitude to change and need to use e-learning (Lei, & Gupta, 2010). Other study have different findings such as O'Neill, et, al., (2011) showed that, most students in developing countries where the use of computers was low have low academic performance because they have poor internet access, lack computers and tutors. Most f them live in remote areas that lack electricity and poor internet access.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the general summary of major findings and the suggestions to be undertaken

6.1 Conclusions

The study examined the student, and institutional factors that influenced the academic performance of e-learners in Nursing Training Schools in Uganda. These included from Nsambya Hospital Training School, Public Health College Kyambogo and Mengo School of Nursing. The study employed 56 respondents and assessed the factors that influenced the academic performance of e-learners. A descriptive-cross section research design was used to collect the information.

6.1.1 What was the level of academic performance?

Student factors were; majority were females, 36-45 years, married, employed, never had skills in computer use, never had personal computers and never had easy access to computers.

6.1.1 Which student factors influenced academic performance?

Institutions factors were; computers were not readily available at the school, school had unreliable internet access and tutors were not readily available at the school.

6.1.1 Which institutional factors affected academic performance?

This implied that, most students never neither had computers nor enough knowledge to use them while the school never had enough computers and tutors to enable students perform well

6.2 Recommendations

6.2.1 Government/Ministry of education and Ministry of Health

- They should allocate more resources to government aided institutions and also engaged in private public partnerships for the private institutions so that they access education and scholastic equipments such as computers to ease the learning process.
- They should improve on policies regarding e-learners at their places of worker so that they are given more time to study.

6.2.2 Students

- E-learners should be trained in computer use before they enroll for e-learning because computer knowledge is a perquisite.
- They should balance up studies and family issues so that they reserve enough time for studies.
- They should at least buy modems to access internet where there is poor coverage in the cafes

6.2.3 School administration

- They should enroll students with computer skills so that e-learning becomes easy for them
- The administrators should ensure that tutors are always available to students so that they help them during the time they are at school.
- Special programmes to communicate with the students while away from school should be emphasized so that their study behavior is followed up. This can be through telephone call contacts and email messaging.
- They should buy enough computers so that all students cam access them whenever they need them
- The school should pattern with reliable internet providers so that they enough access to internet whenever students need it

REFERENCES

Ahmad, MA. and Tarmudi, SM. (2012) "Generational Differences in Satisfaction with E-Learning among Higher Learning Institution Staff. "Procedia-Social and Behavioral Sciences, 67, 304-311.

Allen, I.E. & Seaman, J. (2011) *Going the distance: Online education in the United States, 2011. Babson Park*, MA: Babson Survey Research Group and Quahog Research Group.

Amitava, R., Manojit, D., Seswata, S. & Gopal, MB. (2010) Factors affecting Student's academic performance: A case study in agartala municipal concial area. Bangladesh e-journal of sociology, 7(2).

AMREF, (2012) Using e-learning to train Ugandan midwives, 28 November 2012

Azliza, Y., Zuriyati, A., Kadirb, A., Zainudinc, O. and Zurairahc, A. (2012) *Student Awareness Towards E-Learning In Education*, 3rd International conference on e-learning, 67, 93–101.

Bakia, M., Shear, L., Toyama, and Lasseter, Y. (2012) "An Understanding the Implications of Online Learning for Educational Productivity." Office of Educational Technology, US Department of Education.

Bardwell, P. (2009) *The Edgeless University:* Why Higher Education Must Embrace Technology, Demo, London.

Baxter, JT., Hungerford, B., & Helms, MM. (2011). Predicting success in the introduction to computers course: GPA vs. student's self-efficacy scores. Information Systems Education Journal, 9(2), 75-66.

Belfield, CR., & Crosta, PM., (2012) Predicting success in college: The importance of placement tests and high school transcripts (CCRC Working Paper No. 42). New York, NY: Columbia University, Teachers College, Community College Research Center.

Blake, H. (2009) Staff perceptions of e-learning for teaching delivery in healthcare. Learning in Health and Social Care, 8 223-234.

Bowe, R. (2010) *Instructional technology adoption amongst college of education faculty*: A 5-year phenomenological case study; National-Louis University.

Brouwers, M.C., Makarski, J. and Levinson, AJ. (2010) Study protocol A randomized trial to evaluate e-learning interventions designed to improve learner's performance, satisfaction, and self-efficacy with the AGREE II." Implementation Science, 5.

Capra, T. (2011) Online education: Promise and problems. MERLOT Journal of Online Learning and Teaching, 7(2), 288-293.

Carr, G. (2008) Changes in Nurse Education: Delivering the Curriculum.

Crawford, C. & Persaud, C. (2013) Community colleges online. Journal of College Teaching & Learning, 10(1), 75-82.

E-learning Market Trends & Forecast 2014-2016.

Gidman, J. and McIntosh, A. (2011) *Student perception of support in practice*, Nurse Education in Practice 11, 351-355.

Hakimzadeh, R., Ghodrati, A. (2015) Factors affecting the teaching-learning in nursing education, proceeding of the Global Summit on Education (GSE2013)

Jamshidi, L. (2012) WCES 2012 the challenges of clinical teaching in nursing skills and lifelong learning from the standpoint of nursing students and educators, Procedia – Social and Behavioral Sciences 46(2), 3335-3338.

Jonsen, E. and Melkender, HL. (2013) Finnish and Swedish nursing students' experiences of their first clinical practice placement – a qualitative study, Nurse Education Today; 33(3), 297-302.

Kernan, W. and Bogart, J. (2011) *Health related Barriers to learning among graduate student*, Health Education, 11(5), 425-455.

Kerry, RL. & Sampson, PM. (2011) School board member professional development and effect on student achievement. International Journal of Educational Management, 25(7), 701-713.

Kirmani, NS. & Siddiquah, A. (2008) *Identification and Analysis of Factors Affecting Students Achievement in Higher Education*. 2nd *International Conference on assessing quality in higher education*.

Koohang, A., Riley, L., Smith, T. and Schreurs, J. (2009) "E-learning and constructivism: From theory to application." Interdisciplinary Journal of E-Learning and Learning Objects, 5(1), 91-109.

Kullaslahti, J. (2011) Competence and development of the online teacher in higher education, Acta Universitatis Tamperesis 1613, Doctoral's Dissertation, University of Tampere, Tampere (In Finnish, abstract in English).

Leen, EA. and Lang, FR. (2013) *Motivation of computer based learning across adulthood.* "Computers in Human Behavior, 29(3), 975-983.

Lei, SA. & Gupta, RK. (2010) College distance education courses: Evaluating benefits and costs from institutional, Faculty and students' perspectives. Education, 130(4), 616-631.

Lorenzo, G. (2011) Online education learner engagement & academic success strategies at community colleges. Williamsville, NY: Lorenzo Associates.

Malik, M.W. (2011) "Factor Effecting Learner's Satisfaction Towards E-Learning: A Conceptual Framework." OIDA International Journal of Sustainable Development, 2(3), 77-82.

Noble, JP. and Roberts, WL. (2006) 'Student Achievement, Behavior, Perceptions, and Other Factors Affecting ACT Scores'. ACT Research Report Series 2006 - 1.

O'Neill, E. and Stevens, NT. (2011) Use of e-learning to enhance medical students' understanding and knowledge of healthcare-associated infection prevention and control, Journal of Hospital Infection, 79 (4) (2011), 368–370

Oye, N.D. and Iahad, AN. (2012) "The impact of e-learning on student's performance in tertiary institution". International journal of computer network and wireless communication, 2(2), 2250-3501.

Ozturan, M. and Kutlu, B. (2010) "Employee satisfaction of corporate e-training programs." Procedia-Social and Behavioral Sciences, 2(2), 5561-5565.

Paechter, M. and Maier, B. (2010) *Online or face-to-face? Students' experiences and preferences in e-learning, The Internet and Higher Education*, 13 (4), 292–297

Park, JH. and Choi, HJ. (2009) "Factors Influencing Adult Learners' Decision to Drop Out or Persist in Online Learning." Educational Technology & Society, 12(4), 207-217.

Payne, AM. Stephenson, JE., Morris, WB., Tempest, HG., Mileham, A. and Griffin, D. (2009) The use of an e-learning constructivist solution in workplace learning, International Journal of Industrial Ergonomics, 39(3), 548–553.

Prineus, M. and Cini, M. (2011) Assessing learning in online education: the role of technology in improving student outcomes.

Sokolováa, M. (2011) Analysis of the effectiveness of teaching with the support of eLearning in the course of Principles of Management I-performance analysis, Social and Behavioral Sciences, 28 (2), 174–178.

Stewart, C. and Bachman, C. (2010) Students' characteristics and motivation orientations for online and traditional degree programs. *MERLOT Journal of Online Learning and Teaching*, 6(2), 367-379.

Sun, PC. and Tsai, RJ. (2008) "What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. "Computers & education, 50(4), 1183-1202.

Tamrakar, A. and Mehta, K. (2011) *Analysis of Effectiveness of Web based E-Learning, International Journal of Soft Computing and Engineering* (IJSCE), 1 (3), 55–59 Tang, ACY., Wong, N. and Wong, TKS. (2015) *Learning experience of Chinese nursing students in an online clinical English course: Qualitative study*, 35(2), e61–e66.

Tarhini, A., Hone, K. and Liu, X. (2014) Factors Affecting Students' Acceptance of e-LearningEnvironments in Developing Countries: A Structural Equation Modeling Approach Torres, V., Gross, JP. K et al., (2011) Traditional-age students becoming at-risk: Does working threaten college students' academic success? Journal of College Student Retention: Research, Theory and Practice, 12(1), 51-68.

Van Mierlo, C. (2011) "Cognitive load theory and e-learning. Zheng Yan, Encyclopedia of Cyberbehavior." IGI Global.

Wolff, BG. & Dosdall, MR. (2010) Weighing the risks of excessive participation in asynchronous online discussions against the benefits of robust participation. MERLOT Journal of Online Learning and Teaching, 6(1), 55-61.

Zamzuri, NH., Shahrom, M. et al., (2012) The Role of Cognitive Styles in Influencing the users' Satisfaction on E-Learning System." Procedia-Social and Behavioral Sciences, 67, 427-435.

APPENDICES

APPENDIX I: CONSENT TO PARTICIPATION

Dear Respondent Am, Nalubega Susan Ssengabi, REG.NO: 2013-BNS-TU-006, a student of International Health Sciences University pursuing a Bachelor's Degree in Nursing Sciences. As a requirement for the course a research study is supposed to be carried out to fulfill the course.

Purpose of the Study: The purpose of the study is to "Determine the Factors affecting the academic performance of e-learning midwives in nurse training institution in Uganda". This study is for academic purposes only.

Confidentiality: All the information you give will be treated with maximum confidentiality. Your name will only be mentioned in the research report on your consent.

Mode of participation: You are free to participate or not to participate in the study. If you choose not to participate, you will not be penalized for it. No funds will be issued to you during or after the research process.

Benefits: No physical benefits will be obtained from this study but the study is intended to enrich the existing literature and address issues related to distance academic performance.

Respondent's acceptance

I have understood the purpose and benefits of	The study and I am willing to participate in it
Initials	
Signature	Date
Researchers signature	•••••

APPENDIX II: QUESTIONNAIRE

FACTORS AFFECTING THE ACADEMIC PERFORMANCE OF E- LEARNING MIDWIVES IN NURSE TRAINING INSTITUTIONS OF UGANDA

SECTION A: Social demographic characteristics and student factors affecting academic performance of e-learning midwives.

Instruction: Tick the most appropriate answer or give your own view where applicable

1. How old are you?			
a) 18-25 years		b) 26-35 years	
c) 36-45 years		d) 46 years and above	
2. What is your current mar	ital status?		
a) Single		b) Married	
c) Divorced		d) Separated	
e) Widow		f) Others (specify)	
3. What is your gender?			
a) Male			
c) Female			
4. i) Are you employed?			
a) Yes		b) No	
5. i) Do you have any traini	ng on how to use	a computer?	
a) Yes		b) No	
6. i) Do you have a persona	l computer/laptop	9?	
a) Yes		b) No	
7. Do you access the interne	et?		
a) Yes		b) No	

SECTION B: Level of academic performance of e- learning midwives

Instructions: Tick the most appropriate answer or give your own view where applicable

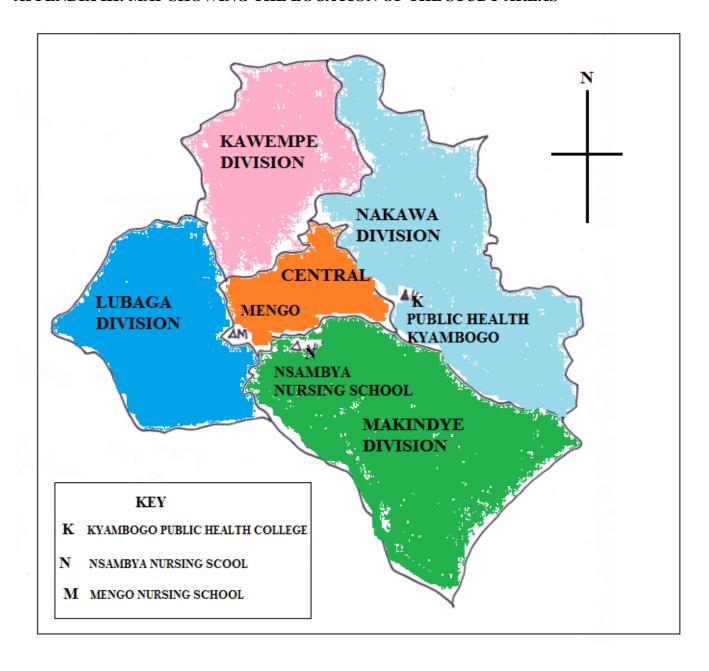
8. Course units covered in the last semester.

SN	Course unit	Marks scored
1	Normal midwifery	
2	Pediatrics 2	
3	Tropical medicine	
4	Domiciliary	
5	Mental health	
6	Community health	

SECTION C: Institutional factors affecting the academic performance of E- learning midwives

Instruction: Tick the m	ost appropriate answ	ver or give your own view	where applicable
9.) Are computers availa	ble at the school?		
a) Yes		b) No	
10) Do you have access	to reliable internet con	nection while at school?	
a) Yes		b) No	
11) Are tutors/mentors a	available for support su	apervision while at school?	
a) Yes		b) No	
	Thank you for	your cooperation	

APPENDIX III: MAP SHOWING THE LOCATION OF THE STUDY AREAS



APPENDIX IV: INTRODUCTORY AND CORERESPONDENCE LETTERS



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 3rd August 2016

PUBLIC HEALTH,
NURSES KYAMBOGO

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you Nalubega Susan Ssengabi, Reg. No. 2013-BNS-TU-006 who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

Her topic of research is: Factors Affecting the Academic Performance of E-learning Midwives in Nurse Training Institutions in Uganda.

This therefore is to kindly request you to render the student assistance as may be necessary for her research.

I, and indeed the entire University are grateful in advance for all assistance that will be accorded to our student.

Sincerely Yours,

Ms. Agwang Agnes

Ag. Dean, School of Nursing

The International Health Sciences University P.O. Box 7782 Kampala – Uganda (+256) 0312 307400 email: <u>aagwang@ihsu.ac.ug</u> web: <u>www.ihsu.ac.ug</u>

veb. www.iiisu.ac.ug

INTRODUCTORY LETTER TO NSAMBYA HOSPITAL TARINING SCHOOL



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 3rd August 2016

TO THE PRINCIPAL MSAMBYA SCHOOL OF MURSING AND MIDWIFTEY

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you Nalubega Susan Ssengabi, Reg. No. 2013 BNS-TU-006 who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

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INTRODUCTORY LETTER TO MENGO SCHOOL OF NURSING AND MIDWIFERY



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 3rd August 2016

TO THE PRINCIPAL,
MENGO SCHOOL OF
HURSING & MIDWIFERY

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you Nalubega Susan Ssengabi, Reg. No. 2013-BNS TII-006 who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

Her topic of research is: Factors Affecting the Academic Performance of E-learning Midwives in Nurse Training Institutions in Uganda.

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